

HELPING THE HELPERS

EVALUATING THE IMPACT OF LOGISTICS CONSULTING IN THE HUMANITARIAN SECTOR



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PREFACE

This thesis marks the end of my master program in Management of Technology at Delft University of Technology. Looking back, the last two years have been one of the most rewarding periods of my life, both from an academic and a personal point of view. I am also grateful for the opportunity I had to spend an exchange year at ETH Zurich, where this research was conducted. In both Universities, I found an exciting and stimulating environment and every difficulty was a chance to grow and push my boundaries.

Before the beginning of this research, I was not familiar with the humanitarian context. The months I spent working on this topic allowed me to understand it more and from different perspectives. Much is left to be done to solve the challenges that continue to affect the poorest areas of the world, but being able to contribute towards this goal was gratifying and meaningful for me.

I want to thank Bublu Thakur-Weigold for involving me in this project. Her support and guidance helped me to walk throughout this process with confidence. I would also like to thank the graduation committee members from TU Delft – my first supervisor Marcel Ludema, as well as Lori Tavasszy and Virginia Dignum – for their valuable feedback. My gratitude also goes to Stephan Wagner, for giving me the opportunity to write this thesis at his Chair of Logistics Management.

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Last, but not least, I want to dedicate this work to my family and friends. To my parents and my sister Elena, for their constant support. To my brother Daniele and Livia, for lifting me up every time I fell. To Davide, Edoardo, Mattia and Matthieu, for becoming my Dutch family. To Viktoria and Zuzanna, for all the precious moments we shared in the last year.

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SUMMARY

In recent years, logistics emerged as a key function in the humanitarian sector. Data show that humanitarian organizations spend a consistent amount of their budgets for logistics and supply chain-related activities (Pettit, Beresford, & Van Wassenhove, 2005). At the same time, humanitarian supply chains have a potential for improvement. It was estimated that around 40% of the supply chain spend in humanitarian organizations is wasted due to factors such as duplication of efforts and process inefficiencies (Day, Melnyk, Larson, Davis, & Whybark, 2012). However, humanitarian organizations often lack the internal skills and expertise to improve the efficiency and effectiveness of logistics operations.

The existing literature dealing with the improvement of humanitarian logistics mostly focuses on the perspective of humanitarian organizations. This thesis looks at the system from a novel perspective, taking logistics consultants as its primary unit of analysis. This stakeholder group includes actors such as universities, foundations, or private companies, which offer services to improve the logistics processes of international humanitarian organizations. Thus, the departure point of this research is the idea that consulting projects constitute a mean for solving logistics issues. Given this goal, logistics consultants often struggle with the management and measurement of their service performance. Several criticalities derive from the fact that these organizations cannot influence the implementation phase of consultancies, due to both internal and external constraints. HELP Logistics, a foundation operating in this sector, has been facing this situation, driving the need for a solution. Available literature on logistics consulting provides some frameworks to evaluate the performance of interventions, but to date, there is no study that addresses this issue for the humanitarian space. This research aims to fill this gap, **analysing and measuring the impact of consulting services on the logistics performance of humanitarian organizations**. The scope of the research focuses on three main stakeholders of the humanitarian space, namely consulting organizations, international humanitarian organizations (IHOs), and final beneficiaries reached through relief and development programs. In particular, by optimizing and assessing the logistics processes of IHOs, logistics consultants can enable a more effective impact on final beneficiaries.

In order to answer the formulated research questions in a structured way, the action research (AR) approach is adopted. This methodology is suitable to investigate and encourage changes within organizations. It entails an active participation of relevant subjects in the research process and empowers them with tools that can solve existing problems. According to B. L. Berg (2004a), four main stages can be distinguished in AR: (i)

identification of research questions; (ii) gathering of information to answer the questions; (iii) analysis and interpretation of information; (iv) sharing of results with participants. These steps are integrated to the content of the thesis, leading to a consistent research framework. Preliminary discussions and interviews allowed to reach a definitive research problem and question. The necessary information was gathered through two main means. Firstly, an extensive desk research of available literature and relevant organizational documents was performed. Then, semi-structured interviews were conducted with eight logistics consultants and four humanitarian managers who had engaged in consultancy projects. The main concepts were derived through a content analysis of interview transcripts.

The analysis and interpretation of information led to three main categories of results. With respect to the consulting services currently offered, involved organizations articulate their value proposition through a set of standardized tools, which can be applied consistently over time. This helps to better inform potential clients about the available service portfolio. Consultancies target one of more supply chain phases (procurement, warehousing and inventory, distribution) of the partner IHO. Procurement projects are particularly relevant, as this function entails most of the logistics expenses. HELP Logistics structures its interventions through sequential phases going from initiation to closure. However, similarly to other consulting organizations, its mandate is usually limited to the delivery of recommendations, without being directly involved in the implementation phase.

Secondly, the research leads to the identification of existing barriers that consultants face during projects with humanitarian organizations. These can be grouped around four main categories: poor problem definition and articulation, lack of commitment, cultural divergence, and resources constraints. Existing challenges may vary depending on the IHO partner or the specific project. In general, they decrease the impact of consulting projects in terms of performance improvement of IHOs' logistics processes. Logistics consultants should be aware of these barriers, and take them into account when carrying out consultancy interventions.

Thirdly, best practices from interviewees are mapped and clustered into five areas. The first three are related to specific phases of individual projects, as follows: scope management (planning phase), characteristics of deliverables (design phase), and implementation support (implementation phase). The last two categories facilitate an effective impact on a more strategic level and include knowledge management and partner management. The proposed best practices can be used by logistics consultants to improve the effectiveness of interventions and address the challenges mentioned above.

The analysis of interviews provides a departure point for the design phase of the research. This part delivers the main outputs of the thesis: a conceptual framework for impact creation through logistics consulting, and a supporting set of Key Performance Indicators (KPIs). The conceptual framework disaggregates consultancies into content-

based cause-effect relationships. These are layered into five main levels: portfolio tools (activities), results of projects (outputs), effect on IHOs' activities (1st-level outcomes), aggregate effect on IHO's logistics performance (2nd-level outcomes), and impact on IHOs' humanitarian programs. This model represents a construct that can be replicated and adapted to the activities of specific consulting organizations. Its adoption contributes to the internal management of projects, business development efforts, and accountability to donors and senior management. The desire to effectively manage and measure the performance of consulting organizations highlights the need to define a clear strategy. The main dilemma faced by these organizations is whether or not to expand their business towards a systematic implementation of consulting recommendations (or auditing of results). This research argues that the current capabilities and structures of consulting organizations are more aligned with the option of focusing on the current service portfolio. Proposed KPIs are in line with this strategic direction and assess the impact of interventions through proxy measurements. Striving for direct measures cannot lead to satisfactory results if the organization does not have the necessary visibility over the operationalization of solutions within IHOs. KPIs are grouped into four main areas (human resources, financial, projects, and business development), which respond to the decision-making needs of interviewed consultants.

The framework and KPI prototypes are validated through the opinion of experts. Although an empirical assessment of research outputs through their implementation is desirable, this was not possible due to the time constraints of this research. However, two consultants from HELP Logistics provided qualitative feedback that acknowledges the value and applicability of results.

Keywords: logistics consulting, humanitarian logistics, performance management, performance measurement, conceptual framework, key performance indicators.

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LIST OF ABBREVIATIONS

AR: Action Research
BCG: Boston Consulting Group
BSC: Balanced Scorecard
CSR: Corporate Social Responsibility
HM: Humanitarian Manager
IFRC: International Federation of Red Cross
IHO: International Humanitarian Organization
KPI: Key Performance Indicator
LC: Logistics Consultant
LFA: Logical Framework Approach
NGO: Non-Governmental Organization
RQ: Research Question
SCI: Save the Children International
WFP: World Food Programme
WVC: World Vision Cambodia
WVI: World Vision International

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1. INTRODUCTION

1.1. THE HUMANITARIAN CONTEXT

Starting from 2011, the Syrian civil war has generated one of the worst humanitarian crises of our age. According to estimates, about 11 million people have been displaced or killed, and a total of 13.5 million people are currently in need of humanitarian help (Mercy Corps, 2017). The conflict led to the deprivation of basic resources (food, medical care, shelter), as well as infrastructures disruption and appalling human rights violations. As the disaster unfolded, humanitarian organizations have been trying to support the affected population, by fulfilling their primary needs and securing their survival. However, relief agencies often struggle with lack of funding and security. Recently, during the 2017 *Helsinki Conference on Supporting Syrians and the Region*, the United Nations (UN) highlighted once again the existence of a gap between financial needs and available funding to face this emergency (UNHCR, 2017). In addition, due to the worsening of the situation in Aleppo, humanitarian access has been decreasing in the last years; bombing and airstrikes have jeopardized the ability to bring aid and even led to the killing of several humanitarian workers (ACAPS, 2016).

Trends about humanitarian emergencies are not reassuring. Disaster relief and development aid are growing markets (Kovács & Spens, 2009), which are expected to be five-times larger in fifty years due to climate change, quick urbanization, and spread of diseases in poor countries (Thomas & Kopczak, 2005). Besides the above-mentioned Syrian crisis, other recent humanitarian priorities include, among others, the *El Nino*-induced droughts in Eastern and Southern Africa, Boko Haram's threat in the Lake Chad basin, and Yemen's famine (IRIN, 2017). In addition, as exemplified by the Syrian case, humanitarian work is facing increasingly challenging conditions, including reduced access, people displacement, political and social instability, and climate change (UNOCHA, 2017). Despite the efforts of the international community in targeting these issues, humanitarian emergencies are going to affect a growing amount of people (Thomas & Kopczak, 2005).

At the aggregate level, according to the latest UN Global Humanitarian Overview, 2017 is expected to witness around 128.6 million people in need, displaced among 33 countries (UNOCHA, 2017). Humanitarian projects will target the most vulnerable individuals, amounting to 92.8 million people. These interventions entail an expenditure of US\$ 22.2 billion by the international community. Despite the increasing budget deployed

by governments and international agencies, as well as the donations of private groups, funding for humanitarian projects appears to be insufficient for the current needs. Looking at consumptive data from 2016, with respect to the US\$ 20.1 billion needed to face relief and aid operations, only US\$ 11.4 billion were covered, while the remaining US\$ 10.7 billion fell under the category of unmet requirements (UNOCHA, 2017). Financial shortage translates into the inability to carry out the planned projects and, ultimately, it results into fewer people who receive the necessary aid. Given this situation, one of the primary concerns of humanitarian practitioners is the maximization of the results that can be obtained with limited donations. In other words, scarcity of resources calls for a more efficient and effective use of them.

1.2. BACKGROUND

Data show that logistics and supply chain relevant functions (e.g. goods' transportation, handling, warehousing, distribution, disposal, ...) involved in humanitarian work account for around 80% of total organizational costs (Pettit et al., 2005), mainly for expenses related to procurement (Thakur-Weigold, Stumpf, & Wagner, 2015). In this research, the concept of humanitarian logistics will be addressed according to the definition developed by the Fritz Institute, that is:

“Humanitarian logistics is defined as the process of planning, implementing and controlling the efficient, cost-effective flow and storage of goods and materials, as well as related information, from the point of origin to the point of consumption for the purpose of alleviating the suffering of vulnerable people. The function encompasses a range of activities, including preparedness, planning, procurement, transport, warehousing, tracking and tracing, and custom clearance.” (Thomas & Kopczak, 2005, p.2)

This definition highlights the fact that, although humanitarian logistics shares some of the activities performed within its commercial counterpart, its strategic objective is intrinsically different. Humanitarian logistics goes beyond the goal of profitability (Kovács & Spens, 2007; Tomasini & Van Wassenhove, 2009), aiming instead to the relief of disaster situations or the sustainable development of poor communities. Moreover, researchers agree that humanitarian and commercial logistics differ along several operational dimensions, such as demand uncertainty, lead-times, available resources, variety of stakeholders, and governance of the supply chain (Kovács & Spens, 2009, 2011; Pettit et al., 2005).

Humanitarian supply chains encompass a wide range of actors, including donors, governments, military, media, logistics providers (Kovács & Spens, 2009; Thomas & Kopczak, 2005). This thesis focuses on a stakeholder group that, to the best of my knowledge, has been overlooked by previous research: logistics consultants who offer services to humanitarian organisations to improve and validate their processes. In this

context, the term “logistics consultant” refers to agents such as universities, foundations, as well as private companies that engage in humanitarian operations. These actors’ support stems from the lack of professional logisticians within the organisations providing relief (Thomas & Kopczak, 2005). In other words, additionally to the lack of funding, humanitarian organisations often lack the skills, organisational structure, and knowledge that are necessary to optimize the output of their logistics processes. Non-profit organisations like HELP Logistics aim at filling this gap offering their expertise pro-bono. They act as donors for humanitarian organisations, but instead of providing cash, they offer logistics knowledge to improve the efficiency and efficacy of their partners. Consultants have to decide how to allocate their resources in order to yield the maximum possible results on two levels: the improvement of the logistics of humanitarian organisations and, eventually, the increase in well-being of final recipients. Thus, this research will not only consider the humanitarian organisations that bring relief to disaster areas, but also the supporting actors that provide resources to make the humanitarian supply chain more efficient and effective.

This thesis takes as starting point the improvement potential of the logistics (and supply chain) performance of humanitarian organisations, which according to estimates is subject to a waste of 40% of the employed resources (Day et al., 2012). As already mentioned above, the necessity for improvement is generated by the fact that funds available to bring relief to beneficiaries are limited. In addition, and even more importantly, faster and more efficient logistics processes are the foundations of effective emergency response plans, and determine the difference between life and death in extreme situations (Pettit et al., 2005).

Logistics performance has been described in different ways in the commercial sector. Chow, Heaver, & Henriksson (1994) note that logistics performance is inevitably multi-dimensional, including items such as customer satisfaction, cost efficiency, flexibility, and social responsibility. On the one hand, focusing on a single concept may oversimplify the organisation’s objectives. At the same time, the authors highlight that a prioritization is necessary in order to solve the conflicts between alternative dimensions. Fugate, Mentzer, & Stank (2010) propose a tri-dimensional perspective for logistics performance, through the concepts of efficiency, effectiveness, and differentiation. While efficiency and effectiveness play a role in the humanitarian sector too, the construct of differentiation (defined here as the competitive value to customers) is only relevant in commercial markets. In fact, aid beneficiaries cannot discriminate between alternative relief supply options, as they can only accept what is delivered in a system that resembles an unregulated monopoly (Beamon & Balcik, 2008). Chopra & Meindl (2013) define logistics performance in terms of efficiency versus responsiveness. According to the authors, organisations position their performance in a point of the spectrum between the “highly efficient” and “highly responsive” extremes, depending on their logistics (and broadly supply chain) capabilities. Their analysis leads to two important remarks. Firstly, logistics performance needs to be defined in relation to the

strategic goals of the organisation. Although improvements can ideally be achieved in a wide range of dimensions, resources should be focused on the aspects that lead to the achievement of relevant outcomes. Secondly, performance does not need to be defined unilaterally along the entire supply chain; the balance between efficiency and responsiveness can be tailored depending on the stage that is being considered. Inherently to this, Oloruntoba & Gray (2006), propose an agile model for humanitarian supply chains, characterised by lean and efficient processes upstream followed by responsive and effective processes downstream.

1.3. RESEARCH PROBLEM

Given the concept of logistics performance and the potential for its improvement as a relevant goal in the humanitarian context, this thesis wants to assess the role of logistics consulting in achieving such objective. In particular, the assumption behind this work is that consulting services generate a concrete impact if they lead to a performance improvement within the international humanitarian organizations (IHOs) that receive them. More specifically, impact is defined as a sustainable improvement that follows the implementation of a certain project (Crawford & Bryce, 2003).

Many consulting organisations struggle in determining the actual impact of their interventions (Winum, Nielsen, & Bradford, 2002). First of all, constraints exist in terms of time and money. Clients often lack the resources that are necessary for a throughout assessment of the obtained results, while consultants tend to limit themselves to the delivery of recommendations without a consistent follow-up on the implementation phase. Also, improvement dimensions tend to be vague and difficult to assess (Sawhill & Williamson, 2001), due to the presence of a large number of external variables that need to be controlled in order to evaluate the change determined by consulting itself.

These issues are amplified in the humanitarian sector, making performance improvement even more challenging. Humanitarian organisations suffer from high turnover rates and crisis-oriented deployment of resources (Thomas & Kopczak, 2005), leaving no time for post-consulting learning processes. In addition, practitioners note that there exist cultural differences between consulting organisations and IHOs receiving their services. Finally, the processes involved in delivering consulting services may affect the creation of impact within IHOs. A direct supervision of the implementation phase could help for the concretisation of performance improvement but, as already mentioned, it is not always feasible. However, while commercial consultants may have a limited incentive for assessing the long-term results of their interventions, humanitarian consultants might depend on it in order to guarantee the continuous inflow of the funding they need.

In order to fill this gap, this thesis wants to analyse the role of logistics consulting towards the creation of a sustainable result in terms of performance improvement. This will

result in a framework for improving the impact of consulting in the humanitarian sector. After an analysis of the current consulting services offered by organisations such as HELP Logistics, the research will analyse the challenges and best practices for effective performance management. Then, this work will look into the managerial processes that are necessary for achieving performance improvement when working with IHOs. The resulting framework will also include a performance measurement system to assess the impact of consulting interventions and services portfolio on both humanitarian organisations' logistics and beneficiaries' well-being, through relevant performance metrics. Given the discrepancy between the commercial and humanitarian sectors, a direct implementation of the traditional performance measurement systems is not feasible (Holguín-Veras, Jaller, Van Wassenhove, Pérez, & Wachtendorf, 2012). Several authors adapted commercial tools to the humanitarian context for the development of applicable Key Performance Indicators (KPIs). However, most of the previous work on humanitarian performance measurement took humanitarian organisations and their processes as the unit of analysis. In other words, researchers focused on the agents that ultimately bring aid to the final beneficiaries. Instead, this work will propose a performance measurement system to be embedded into the project management methodology of consulting organizations.

1.4. MANAGERIAL AND SCIENTIFIC RELEVANCE

Research on performance management and measurement in humanitarian logistics is relevant for several reasons. Firstly, it obviously plays an important role for organizations working in the humanitarian sector, such as logistics consultants and humanitarian organizations. As anticipated before, the scarcity of funds calls for a more efficient and effective use of resources (Kovács & Spens, 2011). Monitoring how well humanitarian projects perform along relevant dimensions can provide a solid basis for improving the current managerial processes, allowing a higher humanitarian outcome with the same (limited) input. Inherently to this issue, inadequate funding is generating a growing competition among humanitarian actors to establish long-term and trustworthy relationships with donors (Tomasini & Van Wassenhove, 2009). Given that donors ask transparency and accountability about the results that have been yielded with their money, being able to provide sound statistics about the projects can represent a decisive advantage (Thomas & Kopczak, 2005).

Secondly, this research can provide useful lesson learned and best practices to logistics consultants operating in the humanitarian sector, in order to increase their impact in terms of performance improvement. By looking into the existing challenges and examples from previous partnerships, this work will propose solutions for an effective management and measurement of consulting services.

Finally, developing a consistent dataset about previous humanitarian operations can help humanitarian logisticians to exploit the related learning potential. The initiation of a more structured way of collecting and analysing information would allow a strategic change from the current “fire-fighting” culture that affects many humanitarian supply chains (Pettit et al., 2005).

1.5. THESIS STRUCTURE

The rest of the report is structured as follows. Chapter 2 defines the scope of the thesis, introducing the relevant stakeholders and how they relate to each other. Having clarified the research boundaries, chapter 3 illustrates the adopted methodology. This includes the definition of the research objectives and questions, as well as the adopted research framework and the strategy for data collection.

Chapter 4 illustrates the performed literature review, which sets the basis for the rest of the work. It explores the characteristics of humanitarian supply chains that are relevant for performance management, as well as the performance evaluation systems that are available in the consulting and humanitarian sectors.

Chapter 5 elaborates on the analysis of the interviews, addressing three main topics. Firstly, the current situation of consulting organization is explored with respect to the available service portfolio and performance management systems. In addition, three examples of previous consulting projects are provided. Then the chapter presents the emerged performance management challenges and best practices.

The design phase of the thesis is illustrated in chapter 6. The discussion explains the developed conceptual framework and consulting KPIs and ends with the validation of results.

Finally, chapter 7 sums up the main conclusions of this work, through a recapitulation of the research questions and the contributions at both practical and scientific level. The chapter is concluded with a reflection on the limitations of the thesis and some suggestions for future research.

2. SCOPE OF THE RESEARCH

The objective of this chapter is to illustrate the scope of the research project, defining the primary unit of analysis and the relevant stakeholders within the humanitarian space. The last section of the chapter will present more in detail the business model and organizational structure of HELP Logistics, the main partner for this thesis.

2.1. STAKEHOLDERS IN HUMANITARIAN SUPPLY CHAINS

According to Freeman's definition (2001), stakeholders identify all the groups of a socio-technical system that affect or are affected by the actions taken by an organisation to achieve its objectives. In the commercial sector, companies develop strategies to positively impact the financial bottom line; following the instrumental stakeholder theory, involving the view of relevant groups into their decision will eventually lead to a higher economic performance in the long-term (Donaldson & Preston, 1995). As anticipated before, organisations operating in the humanitarian sector have a strategic objective that goes beyond the concept of profitability. In this context, stakeholders are intended as those parties that affect or are affected by the efforts for improving the conditions of populations in need.

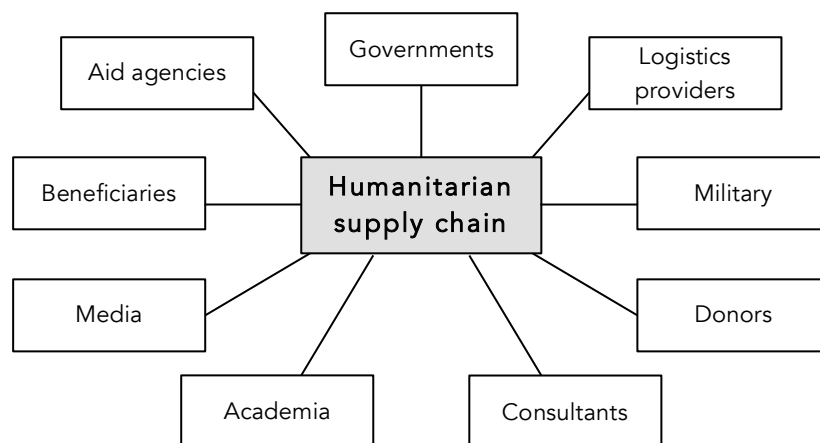


Figure 1. Stakeholders of humanitarian supply chains.
Source: Adapted from Kovács & Spens (2007)

Humanitarian supply chains involve a large number of stakeholders (Pettit et al., 2005), which present distinct challenges within the humanitarian context (Kovács & Spens, 2009). These actors differ with respect to culture, purposes, logistics knowledge, capacity

(Balcik, Beamon, Krejci, Muramatsu, & Ramirez, 2010; Cozzolino, 2012). The most relevant stakeholders can be attributed to the following categories: governments, donors, consultants, military, aid agencies, logistics providers, beneficiaries, media, and academia as shown in Figure 1 (Cozzolino, 2012; Kovács & Spens, 2007; Thakur-Weigold et al., 2015; Thomas & Kopczak, 2005).

Local governments play a crucial role, as they are the initiators of humanitarian supply chains; without their authorization, foreign aid agencies are not allowed to intervene (Cozzolino, 2012). Politically volatile conditions often characterize the affected areas (Pettit et al., 2005), complicating the engagement of the affected countries.

Most of the donations consist in funding provided by wealthy countries and organizations such as the United States and the European Union. More recently, foundations (such as the Bill and Melissa Gates Foundation), as well as individual donors increased their financial support to humanitarian interventions (Thomas & Kopczak, 2005). Following a disaster, donations are also provided in the form of physical items (in-kind donations), in order to respond to the immediate needs of beneficiaries (Holguín-Veras et al., 2012). Consulting organizations such as HELP Logistics also act as donors, but instead of providing funding or physical resources, they offer (logistics) expertise and knowledge through pro-bono interventions. Their role is therefore complementary to the one of private logistics providers like DHL or UPS, which share assets and facilities with humanitarian organizations (Cozzolino, 2012), often within the framework of Corporate Social Responsibility projects.

Military bodies provided immediate support during many occasions, thanks to their planning skills and logistics knowledge (Cozzolino, 2012). They often work in direct collaboration with aid agencies. Aid agencies can be divided into two main groups: local and international. The latter group includes United Nations-related agencies (e.g. World Health Organization), international organizations that are auxiliary to local governments (e.g. International Federation of Red Cross), and non-governmental organizations (e.g. World Vision International) (Thomas & Kopczak, 2005). These larger agencies operate globally and engage in various types of collaboration and partnership with the private sector.

Finally, academia is playing an important role, with a growing amount of researchers and educators focusing on the challenges and needs of humanitarian supply chains. This trend led to the establishment of specific university programmes centred on humanitarian supply chain management, like the ones offered at the University of Lugano and Georgia Tech (Thakur-Weigold et al., 2015). In addition, partnerships like the one between ETH Zurich and HELP Logistics foster cross-sectoral collaborations that lead to solutions implementable by practitioners.

The presented actors interact within humanitarian supply chains through complex systems that involve the flow of goods and information (Thakur-Weigold et al., 2015). Figure 2 divides the humanitarian stakeholders between direct actors who respond to beneficiaries' needs in the field and indirect actors who provide support to operations. Logistics consultants fall into the second category and provide services that aim to the improvement of one or more stages of the logistics cycle depicted in the right-hand side of the figure. The importance of synergies among multiple actors cannot be stressed enough. Although individual players can contribute to the existing needs, the collaboration among multiple parties is essential to tackle problems in a more systemic and cross-functional way.

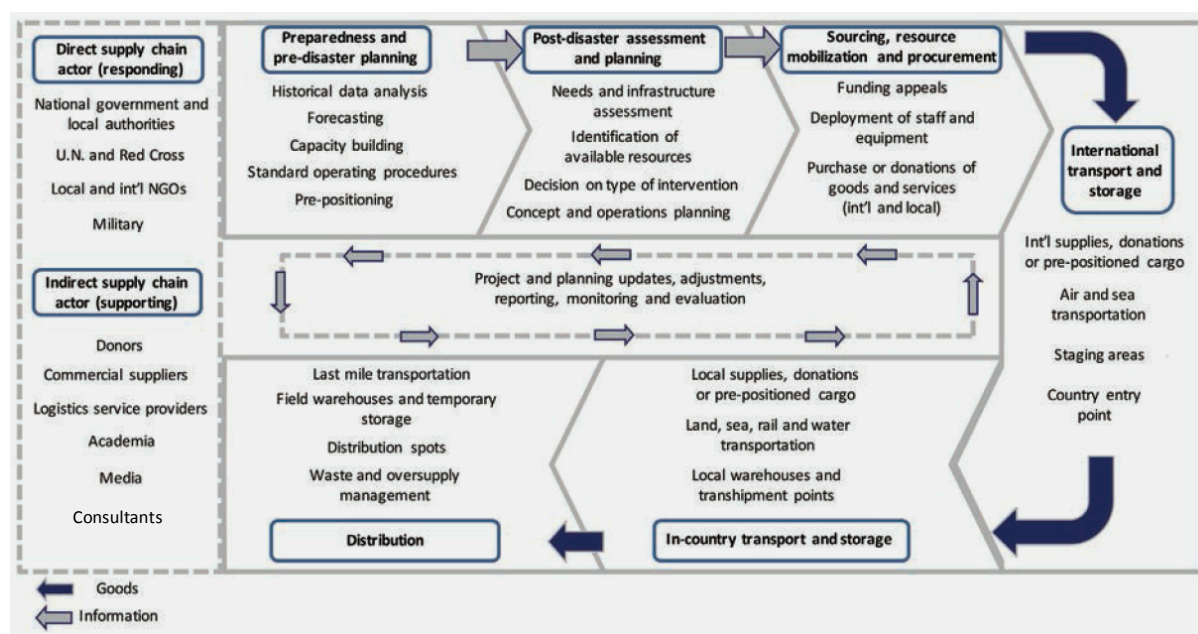


Figure 2. The humanitarian system.
Source: adapted from Thakur-Weigold et al. (2015)

2.2. UNDERSTANDING THE FLOW OF SERVICES FROM LOGISTICS CONSULTANTS TO BENEFICIARIES

This research builds on a subset of stakeholders, represented in Figure 3. This chart has been developed after having reviewed the main activities (services) offered by each actor, trying to define how they are connected with each other. Although humanitarian supply chains imply a complex network of multiple actors, the scope of the thesis is limited to the system linking logistics consultants, IHOs, and final beneficiaries.

Figure 3 can be explained as follows. The category of logistics consultants is the *primary unit of analysis* of the research. These managers, who belong to different organisations such as universities, foundations, or private companies, provide their logistics expertise in terms of services that include, among others, training, consulting projects, and public-private collaborations (Thakur-Weigold et al., 2015). For the purpose of this work,

only organizations that include some kind of logistics consulting service in their portfolio have been considered, excluding the ones that focus only on the provision of training. Also, companies only acting as third party logistics providers (3PL) do not fit into this context, as they mainly contribute to humanitarian organizations with physical assets. Another inclusion criterion is that these organizations should deliver consulting services related, among others, to the areas of logistics or supply chain.

HELP Logistics, one of the organisations this research will draw from, provides a suitable example. As explained in the yearly report of the Kuehne Foundation (2016), the organisation works with humanitarian partners to improve their operations. This goal is pursued along two main dimensions: the provision of advice for issues that emerge in the humanitarian supply chain, and the training of logistics professionals in humanitarian organisations. In doing so, HELP Logistics offers support ranging from knowledge transfer to the provision of recommendations for the improvement of logistics performance. This involves various activities. Existing problems are tackled through the assessment and optimization of the current supply chain, analysing both the internal operational requirements and the external environmental factors. Humanitarian workers are empowered through operational training, technical certificates, as well as logistics simulations. Given this service portfolio, the issue is to understand what is the final impact of these activities.

Humanitarian organisations are the recipients of these services; in particular, this research will focus only on *international* humanitarian organisations (IHOs), as the largest NGOs and UN agencies are generally involved in more collaborations (IRIN, 2016). The primary objectives of the above-mentioned consulting services include the improvement and validation of the activities undergone by IHOs.

Although consulting organisations such as HELP Logistics are not directly connected to the final beneficiaries, it is important to remember that the ultimate goal of their intervention is the improvement of people's well-being. In order to understand to what extent humanitarian consultants have an impact in terms of disaster relief, it is necessary to know what is their influence on the logistics operations of humanitarian organisations. Therefore, this work will also take into account the services provided to the final beneficiaries by IHOs, which include WASH (i.e. water, sanitation, and hygiene), medical treatment, food, and shelter and basic infrastructures, as shown in the image above.

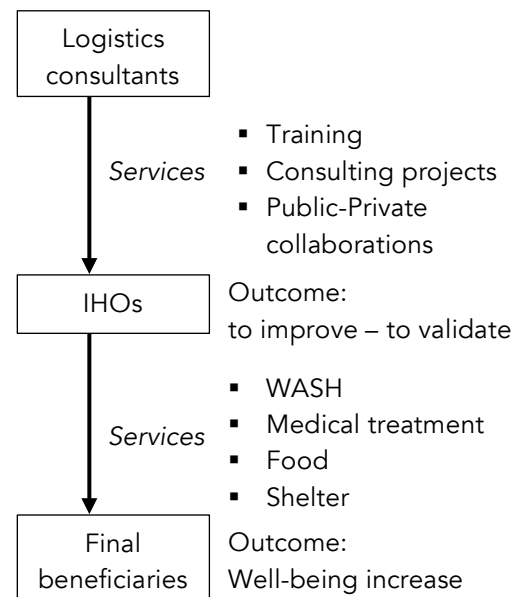


Figure 3. Relationship between stakeholders considered in the research.

Source: own elaboration

Research shows that training is not always positively correlated to performance (Barba Aragón, Jiménez Jiménez, & Sanz Valle, 2014). This means that consultants cannot assume that the services they offer will lead to an improvement of the impact of humanitarian organisations. One of the biggest challenges in humanitarian performance management is the identification of measurement systems that go beyond activities and short-term outputs, but rather enable organisations to assess the final impact on beneficiaries (Abidi, de Leeuw, & Klumpp, 2014). Limiting the measurement scope to the activities of humanitarian consulting organisations would not allow assessing to what extent they are contributing to the final objective of well-being increase. In the context of this thesis, this means that the developed KPIs will have to take into account the stream linking logistics consultants to the final beneficiaries, including the role of humanitarian organisations.

2.2.1. HELP LOGISTICS

HELP Logistics AG was founded in 2010, to respond to the challenges of humanitarian supply chains. It is a non-profit organization registered in 2014, with its global headquarters in Schindellegi, Switzerland. The Kuehne Foundation, established in 1976 by the Kuehne family, supports it financially. HELP Logistics engages in research with several top-level universities around the world. In particular, this thesis was developed within the framework of an on-going collaboration between HELP Logistics and the Chair of Logistics Management of ETH Zurich.

The goal of the organization is to collaborate with humanitarian partners to make their response more efficient and effective (Kuehne Foundation, 2016). As the main asset belonging to the organization is the supply chain expertise of its members, HELP Logistics is not a cash donor. Also, it does not provide physical assets or permanent human resources. Instead, it offers pro-bono services: the organization works as a knowledge and expertise provider, under the assumption that this approach will lead to a more sustainable impact. In other words, while cash may end up wasted in incomplete projects or unnecessary assets, knowledge transfer can produce long-term improvements within IHOs. Looking at the financial bottom line, the improvement of processes generated through HELP's interventions can lead to cash savings as well.

In the last two years, HELP Logistics has significantly grown, both in terms of geographical presence and managed projects. While financial control and business development are centralized in the Swiss headquarters, operations have been decentralized to regional offices. The Asian office was established in Singapore in 2015. The following year, regional presence was extended to East Africa and the Middle East in Nairobi, Kenya and Amman, Jordan respectively. The overall organizational structure is lean, with each regional office employing only three people, who have to take care of administrative, strategic, and operational tasks. The regional distribution, combined with strong links with leading educational institutes, the private sector, and humanitarian partners leads to a

competitive value proposition. In particular, HELP Logistics is able to leverage both the knowledge of the humanitarian sector and the understanding of local needs.

This business model is depicted in Figure 4, which shows the interdependence between the development activities occurring centrally and the delivery of operations in the regions where they are needed. The scope of this thesis will focus on the right-hand side of the model, analysing how the impact of the current products on logistics performance can be managed and measured. This means that the research will not look into new consulting services to be added in the current portfolio, but rather discuss how to get the highest value from what already exists. The request for an assessment framework for the evaluation of the impact is also a consequence of two main trends of HELP Logistics. Firstly, the company's projects are quickly increasing; considering the Asian region alone, the number of planned interventions rose from significantly in the last year, without any increase in deployed staff. The organization, therefore, needs to keep track of the achieved results, while ensuring that the available limited resources are employed in the best way to obtain an effective impact. Secondly, HELP Logistics has been increasing the relevance of consulting services in its product portfolio. While initially the organization concentrated most of its efforts in providing training, the management decided to shift towards consulting, which now takes around 60-70% of the overall working time. This type of intervention, compared to training, allows to have a deeper potential impact on IHOs, by actually entering them and modifying their processes; also, it provides tools to compete in the humanitarian market, which is characterised by a rising number of players. However, consulting services are complex to implement and evaluate, as they require more radical changes within the partner organization.

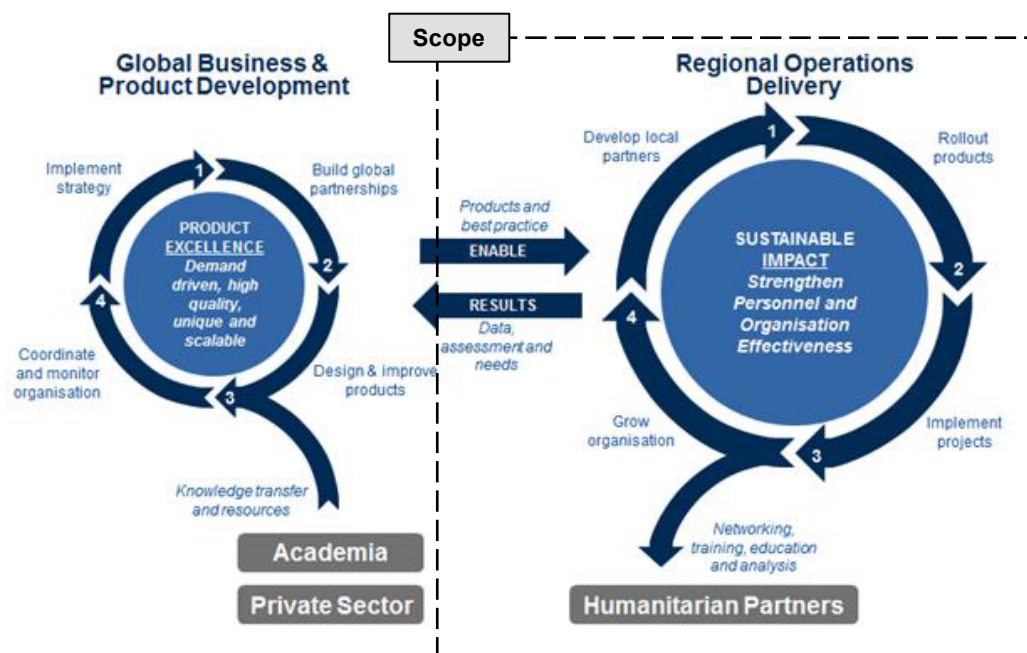


Figure 4. Scope of the research within HELP Logistics' business model.

Source: adapted from Kuehne Foundation (2017)

3. METHODOLOGY AND DATA

This chapter presents the research objective and related research questions, which constitute the backbone of the rest of the thesis. Then, it illustrates the design choices that have been made in terms of research approach and data gathering strategy.

3.1. RESEARCH OBJECTIVE

Given the research problem presented in Section 1.3, the main objective of this research is **to analyse and measure the impact of consulting services on the logistics performance of humanitarian organizations**. The research will result in a framework to be adopted by logistics consultants and IHOs to support the performance improvement of logistics processes. This will include a set of performance metrics that logistics consultants can use to assess whether their services have a direct positive impact on international humanitarian organizations' activities and, in turn, an indirect positive impact on the beneficiaries' well-being.

The steps that lead to the main objective will also allow reaching the following goals:

- To understand what is the performance improvement potential for humanitarian logistics, as well as the existing challenges in terms of performance management and measurement.
- To develop best practices that can enable an effective creation of impact on IHOs and final beneficiaries.
- To develop a performance measurement tool for logistics consulting.
- To validate the applicability of the developed framework.

3.2. RESEARCH QUESTIONS

In order to reach the above-mentioned research objective, the following research question is formulated:

How can logistics consultants improve the performance management and measurement of their services to have an impact on humanitarian logistics?

The process for answering this question has been facilitating by breaking it down into six sub-questions:

1. What is currently known about performance management and measurement for logistics consulting in the humanitarian sector?

Given the exploratory nature of this study, it is useful to understand what is currently known about the topic and consequently build on it. As specific literature on logistics consulting in the humanitarian sector does not exist, the research will investigate performance evaluation in the humanitarian sector and consulting sector separately. This will allow gaining insights to be combined in a single model that explains the current state of the art in relation to the thesis topic. In retrospective, this section was also useful to arrive at the definition of the research problem tackled in this thesis.

2. What services do logistics consultants in the humanitarian sector currently offer?

Taking the boundary conditions presented in chapter 2 as a starting point, it is important to understand what is the service portfolio that considered consultants offer to humanitarian organizations. In order to investigate how to manage and measure consulting services, it is helpful to investigate their content and the main phases involved in the creation of impact.

3. Which performance management challenges do logistics consultants face?

Once the offering of logistics consultants in the humanitarian sector has been explored, it is useful to identify the barriers that hamper an effective performance management of services. In particular, the research will look at the challenges that decrease the impact of consulting projects on the logistics performance of humanitarian organizations. This analysis also facilitates the understanding of existing constraints and limitations that should be taken into account for the following sections.

4. Which best practices can logistics consultants adopt to improve the effectiveness of their services?

After having acquired a good understanding of the current services and existing performance management barriers (*as-is* situation), it is possible to explore the best practices that logistics consultants can adopt. This is done outlining the areas of the consulting system that can be used as drivers for increasing the impact of services.

5. Which consulting framework and performance measurement metrics can be used to assess the impact of logistics consulting in the humanitarian sector?

The output of this thesis will include a conceptual framework that can assist logistics consultants in the evaluation of their services' impact. As explained in the research problem section, performance measurement is an important component of performance management, because it allows to identify the current state of an organization and to steer future actions depending on its strategy. Building on the system depicted through the

previous questions, it is possible to identify measurement metrics that are suited to the considered consulting organizations.

6. To what extent is the developed consulting framework applicable by logistics consultants?

The research objective specifies that the output of this thesis will be a conceptual framework for logistics consulting in the humanitarian sector, complemented with KPI prototypes. As these tools need to be applicable by consulting organizations, a validation of results with relevant stakeholders is necessary. Validation will occur through an iterative process that allows to continuously improve the results.

3.3. RESEARCH APPROACH

Given the research questions developed in the previous section, it is useful to devise a research framework to tackle them in a systematic and consistent way. For this purpose, the next section will present the *action research* (AR) approach, as well as the resulting research framework.

3.3.1. ACTION RESEARCH

AR is rooted in the work of Kurt Lewis (1890-1947) and was originally employed to understand and devise solutions for social problems (Coughlan & Coughlan, 2002). B. L. Berg (2004a) describes AR as a method to generate positive social change through systematic and reflective investigations.

Although this approach was initially applied to social settings – such as educational research – AR was subsequently used for organizational research too. Coughlan & Coughlan (2002) support the applicability of AR to operations management, as it allows to address real problems faced by practitioners, while contributing to the existing knowledge on the topic. They argue that this approach is "fundamentally about change" and therefore applicable to organizational contexts in which an improvement of the existing system (or part of it) is necessary. Eden & Huxham (1996) explain how AR has become more widespread among management researchers as a method to develop "effective professional practice". This approach was chosen because it allows to study a business phenomenon by understanding the interactions in a socio-technical system and then interpret the results to solve a real problem (Coughlan & Coughlan, 2002).

AR is characterized by the principles of reflection, participation, and empowerment (B. L. Berg, 2004a; Huxham & Vangen, 2003). Reflection is obtained through a rigorous approach to empirical research and it facilitates participants in the formulation of accounts for their situation (B. L. Berg, 2004a). This element is especially important at the beginning of the research process, when stakeholders are asked to examine the current situation to diagnose the problems to be tackled. AR deals with phenomena that initially do not

manifest clear complications. In the context of this thesis, the initial research problem appeared to be focused on the development of a performance measurement system for logistics consultants in the humanitarian sector. However, during the first discussions conducted with consultants involved in the study, the problem shifted to a wider, more systemic level: the management of performance to create impact at IHOs. Performance measurement is a component of the issue, but it is not possible to address it without having determined the organizational status quo, as well as the limitations and strategic objectives of the involved parties. As the research unfolded, it became clearer that the central struggle faced by consultants was to effectively deploy their service portfolio, in order to facilitate the implementation of solutions and the improvement of the partners' logistics performance.

Participation refers to the fact that the subjects of the research are invited to participate actively in the research process, through iterative feedbacks at various stages of the study. This is achieved through a close collaboration between the researcher and the practitioners of involved organizations. Participation is important for two reasons. Firstly, discussion of intermediary results is a way to re-elaborate findings in the light of received input, as well as to plan additional data gathering where necessary. Secondly, by organizing interactive sessions such as workshops or presentations, it is possible to obtain a validation of the research output. As explained later, this thesis involved intermediary meetings and communication with logistics consultants for the above-mentioned purposes.

Finally, AR is empowering. This approach leads to two main objectives. On the one hand, AR aims to the solution of the designated organizational problem in a way that motivates participants to apply the information gathered during the study (B. L. Berg, 2004a; McTaggart, 1994). In particular, consulting organizations like HELP Logistics can extract direct benefits from the results of this work in managing and delivering their consulting services. Secondly, it contributes to the existing body of knowledge with important lessons learnt. This research aims to fill an existing gap in the context of operations management and performance measurement in the humanitarian sector.

B. L. Berg (2004a) suggests a spiral process for AR, with four main phases (Figure 5):

(i) *Identifying the research questions.* As explained above, the identification of the research problem (and related questions) required an iterative approach with logistics consultants. AR emphasizes the fact that the considered studies need to be relevant for both the researcher and the involved stakeholders.

(ii) *Gathering the information to answer the questions.* Data collection methods will be presented in greater detail in section 3.4.

(iii) *Analyzing and interpreting information,* to generate descriptive accounts based on the retrieved data. This phase has the goal to answer to the questions formulated during the first step of the process.

(iv) Sharing the results with participants. Again, this underlines the importance of empowerment in AR to produce organizational changes that can improve the system. This phase can take place through formal or informal meetings such as focus groups, workshops, open discussions, or forums. Such instances also constitute an occasion for getting feedback and improve the obtained results.

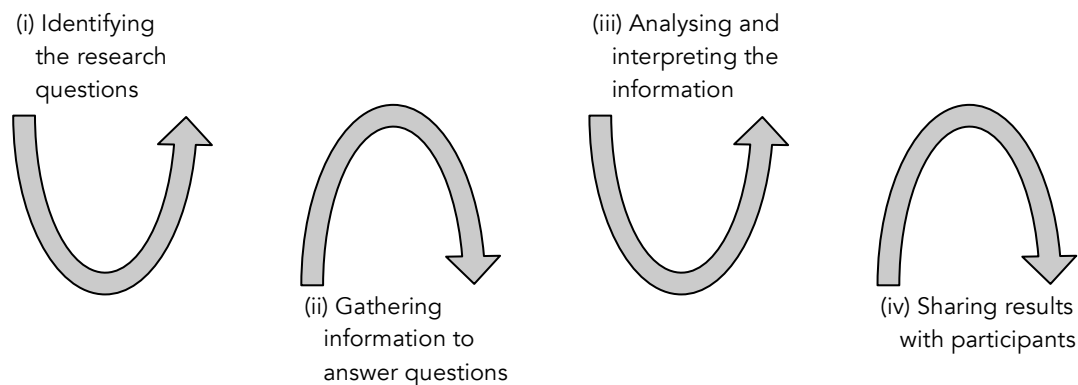


Figure 5. The action research spiral process. Source: B. L. Berg (2004a)

Although some authors suggest more implementation-oriented approaches (e.g. plan-act-observe-reflect) (Coughlan & Coughlan, 2002; French, 2009), for the purposes of this thesis emphasis is put on the research and design phases. The validation of results is also included in the research framework, even if a throughout implementation and evaluation of results was not possible, due to time and resources constraints. In line with B. L. Berg's (2004a) approach, the concept of "action" is operationalized as a direct involvement of the researcher in the analysis and solution of an organizational problem, through a close collaboration with relevant stakeholders.

The main motivation for choosing AR is that the researcher was part of a primary process to provide advice to the management of consulting organizations with respect to the management and measurement of their services. According to Coughlan & Coughlan (2002, p. 222), AR is "research *in* action, rather than research *about* action". Table 1 shows how AR was applied with respect to the stages outlined above. Meetings and interviews were organized to address the various phases together with practitioners who were interested in the improvement of the existing situation. Please note that phase (iii) – i.e. the analysis of information – was carried out independently and is therefore not associated with specific dates. All in all, the definition of the research problem and project milestones relied on the collaboration with consultants, who needed to analyse the issue at hand in a structured and systematic way. This led to a continuous and iterative process, with the objective of crafting research outputs of both scientific (model development and validation) and managerial (improvement of existing practices and systems) relevance. It is important to observe that the feedback loops and interdependencies between AR phases go beyond the ones presented in Table 1. For the sake of clarity, the history of meetings is presented in a simplified form, with the intent of showing how the various AR stages involved the participation of external actors.

AR phase	Meeting dates	Content
(i)	18/03, 03/04	Brainstorming about the system to be analysed with logistics consultants operating in the humanitarian sector.
(ii) – (iii)	04/04, 17/04, 20/04, 25/04	Introduction to HELP Logistics' business model, organizational structure, and strategy. Understanding of existing situation with respect to performance management and measurement at different organizational levels (regional, global, Board). Scoping of the research problem.
(i)	27/04	Finalization of research problem definition.
(ii)	Appendix A	Interviews conducted with practitioners listed in Appendix A to collect the necessary information for the different research stages.
(iii)	-	Analysis of qualitative data and generation of first drafts of research outputs (performance management challenges, best practices, consulting framework, KPIs).
(iv)	16/05, 09/06, 22/06	Intermediate presentations of results to consultants from HELP Logistics and experts from the sector. Workshops to discuss progress and understand how to adjust research outputs to organizational needs.
(iii)	-	Feedback used as input for iterative theory building and model development.
(iv)	14/07	Final sharing of results with logistics consultants from HELP Logistics. Executive summary with practical recommendations.

Table 1. History of meetings in relation to AR phases. Source: own elaboration

3.3.2. RESEARCH FRAMEWORK

The AR model was used as a base to develop the research framework for this thesis. Figure 6 shows the process that will be followed throughout this research to answer the research questions. These have been mapped in different points of the framework.

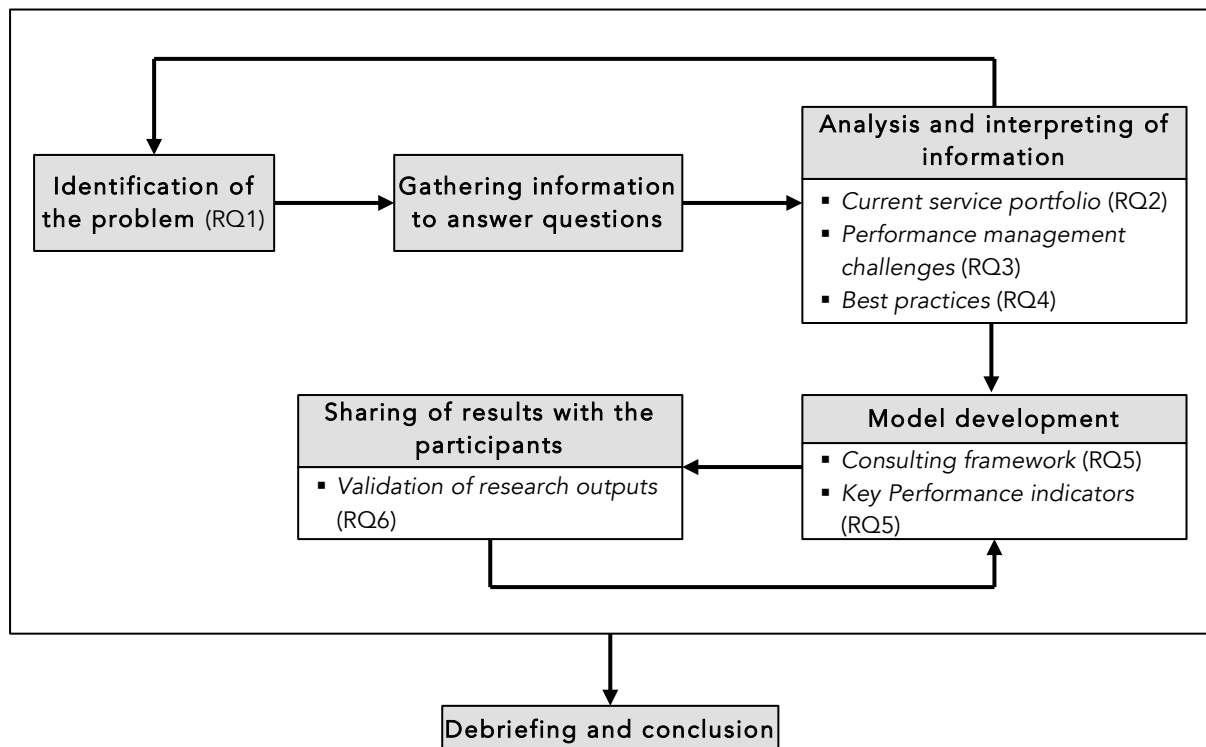


Figure 6. Research framework. Source: adapted from B. L. Berg (2004a)

The research framework integrates AR with the content of the thesis. The identification of the problem was subject to a feedback loop deriving from the analysis and interpretation of the information that is gathered. This iteration was repeated until a definitive problem statement was reached. After that, the collected data were analysed to elaborate on the current service portfolio of logistics consultants, the challenges faced to effectively manage performance, and the best practices that can be adopted to improve consulting impact on IHOs. This was done by considering the stakeholders presented in the research scope, as well as the interactions among them.

The analysis was used as an input for the model development section of the thesis. The first part looked at the consulting cycle for the creation of impact. The resulting conceptual framework outlines how logistics processes can be affected by the consulting services and how these can be operationalized by IHOs. The framework is supported with measurement metrics to be incorporated into the consulting process, as the measurement of the performance improvement is essential to assess how impactful services are. Since the research output needed to be a pragmatic tool that logistics consultants could apply, the design process took in consideration various requirements and constraints that emerged during interviews. These included expected decision-making support, strategic intent, availability of data, and explanatory power of the tool.

Results were then validated by presenting them to logistics consultants during a dedicated session. Intermediate sessions were also held, especially for the development of KPIs. Although the modifications of results cannot be presented entirely in this report, it is important to emphasize the iterative nature of this process. Active participation of stakeholders is an essential component of AR, and was therefore facilitated throughout the research. As already mentioned, an empirical assessment of the outputs was not possible, due to constraints in time and data availability. This represents one of the main limitations of this project. Empirical validation is missing for several of the humanitarian performance management and measurement frameworks that have already been developed (Lu, Goh, & De Souza, 2016). As a consequence, organizations tend to adopt simpler tools that are developed in-house (D'Haene, Verlinde, & Macharis, 2015). In this thesis, the AR approach allows in part to overcome this problem. The involvement of interested consultants throughout the process enabled continuous feedback on results and, therefore, a higher applicability of findings. Also, the first corroboration of findings that was conducted can be used as an initial step for a more detailed validation.

The research process was concluded with a debriefing phase to present the key findings and related contribution, as well as the research limitations and suggestions for future work.

3.4. DATA COLLECTION STRATEGY

The research focused on the perspective of two main stakeholder groups: companies providing logistics consulting, such as Panalpina and HELP Logistics, and international humanitarian organisations, such as the World Food Program (WFP) and World Vision International (WVI).

The selected methodology for data collection includes a combination of desk research, semi-structured interviews with managers of the selected organizations, and empirical validation of the findings. In general, AR does not prescribe specific data gathering methodologies (Coughlan & Coughlan, 2002). Given the exploratory nature of the research, the chosen methodology entails a predominantly qualitative approach (Verschuren & Doorewaard, 2010).

3.4.1. DESK RESEARCH

An initial desk research was necessary in order to review the available information in the field of humanitarian logistics and to lay the foundation for the following steps of the thesis. The research targeted scientific articles describing the functioning of supply chains in the humanitarian sector, in order to have an overview of the relevant stages and stakeholders (Donaldson & Preston, 1995). It then moved to the review of articles dealing with performance evaluation in both humanitarian and commercial consulting contexts. As there is no specific literature dealing with the impact of service providers for humanitarian organizations, the review combined insights from these two fields.

Research was supported by several secondary sources that were necessary to investigate the current system from various perspectives. AR mandates an understanding of the corporate environment and its components (Coughlan & Coughlan, 2002). Reviewed documents included the following categories:

- Annual reports and corporate websites, to understand the strategic goals and functioning of consulting organizations.
- Projects charters, consultancy reports, and case studies. These documents showed how projects are currently set up, how they are operationalized, and which are the main results that are achieved.
- When available, performance measurement systems and lists of KPIs were analysed. A review of the relevant literature was done with respect to the existing KPIs for humanitarian logistics. While performance measurement in the humanitarian industry is still at an early stage (Kovács & Spens, 2011), the literature dealing with the issue for traditional business is broad and offers various alternatives (D'Haene et al., 2015).

The desk research was performed by using databases such as Scopus and Web of Science, as well as more generalist search engines (e.g. Google). Secondary sources about

the organisations involved in the research were retrieved through their corporate websites or via internal reference people. Although the desk research process was long and time-consuming, the analysis of documents allowed to collect details that could not emerge during interviews. Interviewees were available for a limited time only, and sometimes they were not aware of project specifications or background information. Inherently to this, a preventive examination of relevant documents facilitated more informed interview discussions and thus, the collection of more meaningful insights.

3.4.2. INDIVIDUAL SEMI-STRUCTURED INTERVIEWS

Interviews were conducted with logistics consultants who offer support to IHOs, as well as with humanitarian staff who works directly on the projects.

- Logistics consultants. These managers helped to identify the activities, best practices, outputs, and expected outcomes, related to the services they offer to IHOs. Also, they helped to understand how their interventions can have an impact on the logistics performance of their clients. Managers provided information about what they aim to achieve through logistics consulting, which kind of support they need when making decisions, and what are the constraints and challenges that they currently face. These insights gave inputs on how to improve the existing consulting procedures in order to make projects more impactful.
- Humanitarian managers from IHOs. These managers shared information about how they formulate their requests and operationalize the recommendations obtained by logistics consultants. They act as the demand side of the partnerships with logistics consultants; interviews were useful to understand what are the changes that occur to IHOs' logistics processes due to the consulting services, as well as the existing constraints. The discussion also included the final impact that is expected in terms of beneficiaries' welfare improvement.

Interviews were conducted with 12 participants, belonging to various organizations. A complete list of participants with the relative roles can be found in Appendix A. Names have been substituted with codes for privacy reasons. Interviewees were selected through purposive sampling (Sekaran & Bougie, 2013), targeting people who possessed knowledge that was relevant for the objective of the study.

3.4.2.1. INTERVIEWING APPROACH

The chosen approach was the use of semi-structured interviews. Ideally, they should be done in person; however, this was often not possible due to time or distance constraints, and alternative means such as Skype or phone were employed. Semi-structured interviews allow a higher degree of flexibility compared to structured interviews, and the steering of the discussion depending on the arguments that come to the surface (Sekaran & Bougie, 2013). This method is suitable for exploratory research, enabling the collection of information that is specific to the involved organizations. Depth of analysis is one of the

main benefits of this approach (Verschuren & Doorewaard, 2010). However, its main limitation is that it requires a considerable amount of time to be completed, as well as interviewing skills to obtain the necessary information (McLeod, 2014). In order to make the findings significant, interviews should be conducted in a sufficient amount. Additionally, interviewed managers may be subject to social desirability bias (Paulhus, 2002).

Given the exploratory nature of the study and the diversity in roles and organizational level of interviewees, there was no standard interview protocol. Some questions were prepared before each interview, in order to start the discussion and introduce topics that led to further questions. At the beginning, the researcher introduced himself, the purpose of the study at large, and the objectives of the interview. Follow-up interviews were scheduled when deemed necessary to collect additional information. Besides the distinction between logistics consultants and humanitarian managers as targets, interview schemes can be clustered in two main groups. The first one includes business-oriented interviews, whose purpose was to investigate patterns, practices, and challenges in relation to performance management and measurement within the involved organizations. The second group refers to project-oriented interviews; these interviews had the purpose to dig deeper into the content of specific consulting interventions that occurred in the past, to understand elements such as the involved phases, contents, outcomes, and measurement of results. Sample schemes for the two types of interviews are provided in Appendix B1 and B2.

3.4.2.2. CONTENT ANALYSIS

During interviews, the researcher took notes and, when possible, recorded the discussion. Interviews were then transcribed and sent back to the interviewees, who could add more information if deemed necessary.

Transcripts were then used as an input for a content analysis. This technique consists of a systematic analysis and interpretation of textual data that leads to information patterns and themes (K. E. Berg & Latin, 2015). The content analysis was performed following the steps presented by B. L. Berg (2004b):

- Collection of data and conversion into text;
- Analysis of text and identification of codes;
- Merger of codes into themes/categories;
- Identification of relations and connections among various categories.

Data was processed with simple tools such as Microsoft Word and Microsoft Excel. Lapelle (2004) supports the use of general-purpose software tools for qualitative data analysis. Given the limited amount of interviews to be processed, this approach was deemed fit for the objectives of the thesis. An initial open coding was performed to extract concepts from every line of text. Then, these concepts were cleaned and merged into

thematic sub-categories and categories, which were linked as shown in chapter 5. A complete list of the cleaned codes can be found in Appendix C.

3.4.3. FEEDBACK SESSIONS

Active feedback from logistics consultants was solicited throughout the research process. As already mentioned, this approach helped for the definition of a research problem that interested both the researcher and logistics consultants (in particular, HELP Logistics). Intermediate sessions were held to share partial results with experts from the involved consulting organizations. These reviews represented insightful checkpoints to corroborate the work done, as well as to receive additional information to carry out the following steps of the research.

Finally, a review session was organized to validate the thesis output with two logistics consultants from HELP Logistics. Some authors suggest that AR should include an actual implementation of the developed design, followed by a post-implementation evaluation of outcomes (Coughlan & Coughlan, 2002). This was not possible due to time constraints. As the thesis deals with organizational decisions on the strategic level, a preliminary choice about the implementation of proposed tools is necessary. In addition, the testing of KPI prototypes on new projects requires a lengthy data collection process that is outside the scope of this project. However, evaluation is still provided in the form of experts' opinions. Experts provided general comments and impressions on the research output, validating the results and elaborating on their applicability.

4. LITERATURE REVIEW

This chapter presents a literature review that will result in an initial model for performance management and measurement of logistics consulting in the humanitarian sector. First of all, the review outlines the differences between commercial and humanitarian supply chains. Then, it explores existing systems for performance evaluation in the commercial consulting and humanitarian sectors. Finally, it aggregates findings in a single model, contributing to the answer to RQ1.

4.1. COMMERCIAL VS. HUMANITARIAN SUPPLY CHAINS

This section wants to investigate the differences that characterise commercial and humanitarian supply chains. These elements should be taken into account when assessing and measuring the impact of consulting services on humanitarian logistics.

In the last decades, scholars have been paying increasing attention to the issues related to humanitarian supply chains, especially in the aftermath of the Asian tsunami in 2004 (Thomas & Kopczak, 2005). Humanitarian and commercial supply chains share similar building blocks, linking suppliers to end beneficiaries and customers (Van der Laan, De Brito, & Vergunst, 2009). Commercial logistics processes encompass four main echelons: supply, manufacturing/assembly, distribution, and customers (Beamon & Balcik, 2008). The flow of goods in the humanitarian sector is also structured through this sequence, as shown in Figure 7.

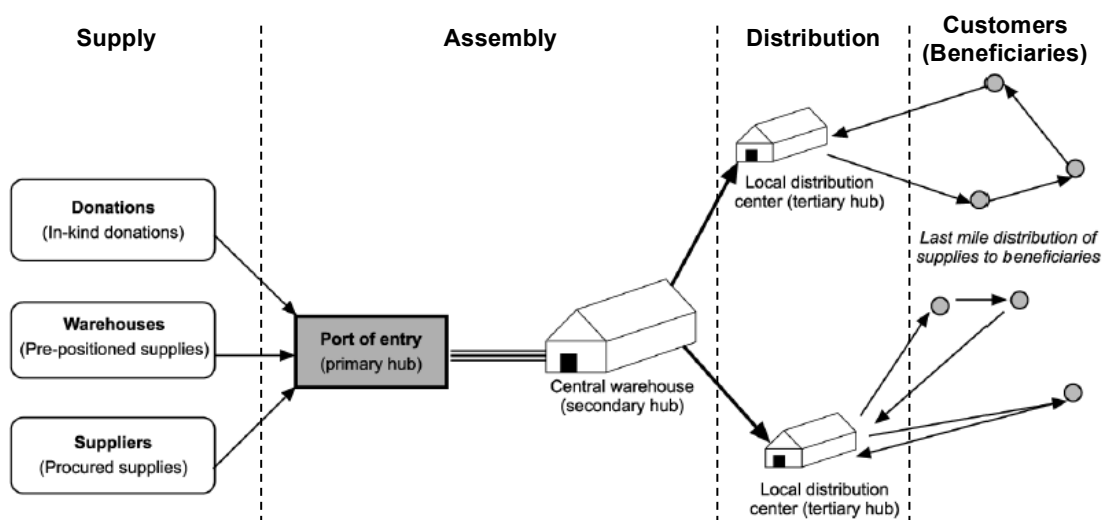


Figure 7. Stages of humanitarian supply chains. Source: adapted from Beamon & Balcik (2008)

As illustrated by Beamon & Balcik (2008), supply usually takes place in the form of in-kind donations, pre-positioned items stocked by forecasts, and procured supplies that are sourced in response to a disaster. These goods go through a main port of entry positioned in a convenient location in the region where relief is needed and stocked at a central warehouse. Here, relief kits are composed with items sourced from different suppliers. Then, the prepared kits are dispatched to local distribution centres, which are closer to specific affected areas. Finally, the relief items are distributed to the final beneficiaries through last-mile delivery. Although similarities exist in terms of successive stages, research shows how the humanitarian context is radically different from its commercial counterpart, placing peculiar challenges in terms of performance management and measurement (Abidi et al., 2014).

A review of the available literature dealing with humanitarian supply chains has highlighted a number of issues (summed up in Table 2) that organisations operating in the humanitarian sector should consider. In the context of this thesis, these characteristics may pose limitations and constraints to the performance improvement potential that can be achieved through consulting services. The following features also offer insights to tailor the consulting methodology and services in order to optimize the achievable impact.

High number of stakeholders. The concept of stakeholder refers to any actor that affects or is affected by the activities of a certain organisation (Donaldson & Preston, 1995). Understanding which are the relevant players and how they are related to each other is essential in order to improve the overall logistics performance. Several authors noted an increasing number of stakeholders in the humanitarian sector (Beamon & Balcik, 2008; Pettit et al., 2005; Schiffling & Piecyk, 2014; Tomasini & Van Wassenhove, 2009). As presented in section 2.1, the humanitarian supply chain encompasses a wide range of actors. This situation may hamper performance improvement for various reasons. Firstly, *cultural differences* exist among organisations operating in the humanitarian context (Maon, Lindgreen, & Vanhamme, 2009). For example, IHOs may lack the internal thrive for operational efficiency that characterizes the private companies working with them. The conflict between alternative values highlights the need for a precise perspective when planning performance improvement. Secondly, the large number of players often hampers *coordination* of activities. When a disaster strikes, individuals tend to organise in newly formed organizations to bring help and provide support services. However, they are often unprepared and their unplanned efforts contribute negatively to the overall system (Day et al., 2012). The 2015 Nepal earthquake response provides an example. The uncertainty over the actual composition and number of players providing help hindered the efforts towards humanitarian relief (Guerrero-Garcia, Lamarche, Vince, Cahill, & Besiou, 2016). Finally, the high number of stakeholders causes a *chaotic governance of the supply chain*. Since roles and responsibilities are not clearly defined, decision-making is often delayed (Day et al., 2012).

Lack of human resources. Performance improvement is often difficult due to the shortage of personnel who is available to operationalize the necessary changes within humanitarian organizations (Sawhill & Williamson, 2001). Also, the burnout caused by relief operations' distress generally results into a *high staff turnover* (Pettit et al., 2005), which complicates the establishment of long-term projects to enhance logistics processes. *Lack of professional staff* is another problem, as logistics roles in the humanitarian sector tend to be covered by people who did not receive an adequate training (D'Haene et al., 2015; Thomas & Kopczak, 2005).

Complexity of operating conditions. Commercial supply chains normally operate within a stable environment, characterised by functioning infrastructures and accessible transportation routes (Holguín-Veras et al., 2012). Humanitarian emergencies increase the complexity of interventions. Natural disasters can disrupt the local supply system, especially when hitting poor countries that do not possess enough resilience to overcome these events. Shortage of fuel, interrupted entry points, or compromised communication infrastructures are some of the factors characterizing humanitarian logistics operations (Abidi et al., 2014; Beamon & Balcik, 2008). As exemplified by the Syrian case, man-made conflicts often jeopardise humanitarian relief (UNOCHA, 2017). The *politically volatile environment* does not guarantee a safe humanitarian corridor, significantly increasing lead-times and costs. A possible response to these conditions is the creation of agile supply chains that can quickly adapt to different entry points and suppliers, depending on the current situation (Guerrero-Garcia et al., 2016).

High demand uncertainty. Although some patterns can be identified in terms of disaster occurrence (for example, countries like the Philippines are prone to seismic events, and earthquakes are expected to happen), the actual demand for goods and services during emergencies remains uncertain (Kovács & Spens, 2007). This depends on factors such as local economic and social conditions, type and size of the disrupting event, and preparedness of the affected area (Beamon & Balcik, 2008). The requirements of beneficiaries quickly evolve in the aftermath of a disaster, and a rapid assessment needs to be done in order to source the relief items. A related issue that affects logistics performance is the *lack of accurate data and IT systems*. While most commercial supply chains can rely on demand forecasts and effective communication between business partners, the humanitarian sector is much more chaotic and fragmented (Guerrero-Garcia et al., 2016). This results in the amplification of the bullwhip effect, which is an increase of demand distortion and inefficiency moving up the supply chain (Lee, Padmanabhan, & Whang, 1997). As a consequence, suppliers and manufacturers suffer from the absence of accurate consumption data and may not deliver what the beneficiaries need in the right amount and at the right time (Van der Laan et al., 2009).

Revenue sources and donor accountability. Revenue streams are one of the building blocks of organisations' business models, as they provide sustained financial means for the

company's activities (Osterwalder & Pigneur, 2010). While in the commercial sector the main revenue source lies in those who extract value from products and services (i.e. the final customers), in the humanitarian context funding is provided by actors such as governments, private companies, individuals, or foundations (Moore, 2000). HELP Logistics is able to provide pro-bono consulting services to IHOs thanks to the funding received by the Kuehne Foundation. Donors are becoming increasingly influential, especially due to the lack of available funding in the humanitarian sector (Pettit et al., 2005). To this respect, long-term investments in logistics improvements can signal a commitment to extracting more value from the available resources (Tomasini & Van Wassenhove, 2009).

Strategic objectives. Humanitarian supply chains go beyond the commercial objective of corporate profitability (Tomasini & Van Wassenhove, 2009). In this sense, economic resources are seen as a mean to achieve relief and development, rather than an end. This assumption has two main consequences. Firstly, logistics performance cannot be improved with the sole objective of reducing costs and increasing profits. Even if efficiency is important to rationalize the available resources, the primary mission of organisations in the humanitarian sector is to guarantee the beneficiaries' well-being. In extreme conditions, the *pressure of time* does not only imply higher costs, but also make the difference between life and death (Beamon & Balcik, 2008; Pettit et al., 2005). Secondly, different objectives have a significant impact on the performance measurement of humanitarian logistics (Abidi et al., 2014). Commercial measurement tools cannot be directly implemented in the humanitarian sector. They need to be adapted in order to fit the context of relief operations (Holguín-Veras et al., 2012).

	High number of stakeholders	Lack of coordination	Chaotic supply chain governance	High staff turnover	Lack of professional staff	Complexity of operating conditions	Politically volatile environment	High demand uncertainty	Lack of accurate data and IT systems	Upstream revenue sources	Donor accountability	Strategic objectives beyond profitability	Pressure of time
Thomas & Kopczak (2005)		X			X								
Pettitt et al. (2005)	X	X		X		X	X	X			X		X
Kovacs & Spens (2007)			X			X		X				X	X
Beamon & Balcik (2008)	X					X		X	X	X		X	
Laan et al. (2009)									X				
Tomasini & Van Wassenhove (2009)	X	X		X			X	X					
Maon et al. (2009)	X												
Abrahamsson et al. (2010)						X			X			X	
Day et al. (2012)	X		X			X		X			X		
Holguin-Veras et al. (2012)			X			X		X				X	
Abidi et al. (2014)					X	X			X		X		
Schiffling & Piecyk (2014)	X											X	
D'Haene et al. (2015)					X			X				X	
Guerrero-Garcia et al. (2016)	X	X		X	X	X					X		X

Table 2. Characteristics of humanitarian supply chains. Sources: see references in the first column

4.2. PERFORMANCE EVALUATION IN THE CONSULTING SECTOR

In the commercial sector, managing and measuring the impact of consulting interventions is a complicated task, regarded as an informal activity for which no objective and diffused methodology has been adopted yet (Laffite, 2016). Consulting is seen as a “black box” (McGinn, 2013). The tendency of focusing on the number of partnerships rather than their impact is often fuelled by compensating schemes that favour quantity over quality of completed projects (Laffite, 2016).

Winum, Nielsen, & Bradford (2002) discuss the importance of evaluating consulting impact, by highlighting that this is asked by an increasing number of clients. As a consequence, the professional viability of many consulting companies depends on the ability to show hard data about the obtained results. Nowadays, companies secure a growing portion of their budgets for consulting services, generating the need for accountability.

Phillips, Trotter, & Phillips (2015) present four scorecard approaches for the assessment of performance in the consulting sector. They start with the IPO (impacts, processes, outcomes) scorecard, which draws a simplistic link between input measures such as time and costs and outputs measures such as sales, customer satisfaction, and productivity. The second approach resembles the traditional BSC, primarily focusing on human capital metrics (Figure 8). The main shortcoming of these methods is their limited scope, which does not provide a real visibility on the activities that are performed and the final impact that is obtained through consulting.

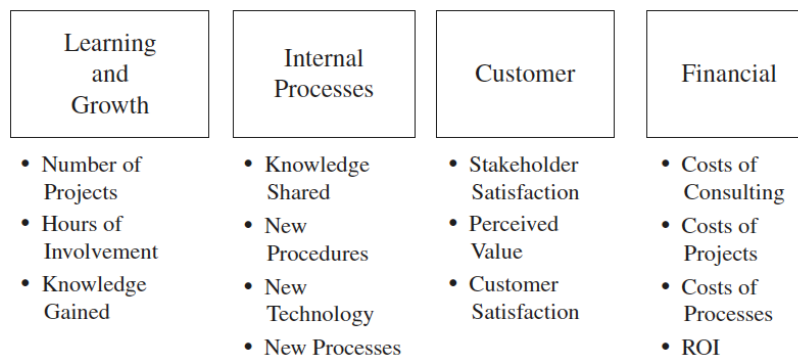


Figure 8. BSC applied to the consulting sector. Source: Phillips et al. (2015)

The third approach is the Causal Chain Scorecard, which presents a flow of seven measurement metrics categories with the aim of providing a more comprehensive account of the perspectives of various stakeholders. The categories refer to the sequence of inputs, costs, reactions (customer satisfaction), learning, applications (activities), impacts, and return on investment (ROI). The main criticisms towards this framework for the purpose of humanitarian consulting derive from the characteristics of the relief sector itself. This model assumes a chain of causality that is hardly so evident for humanitarian projects. The chaotic

operating environment and external factors with low predictability (Pettit et al., 2005) introduce the necessity for causal assumptions or a higher visibility in cause-effect relationships. In addition, the final bottom line is still measured through a financial indicator, the ROI. Instead, humanitarian supply chains treat funding as a mean (Beamon & Balcik, 2008). Their ultimate goal refers to the beneficiaries' well-being.

The last presented framework is the AIMC (Association of Internal Management Consulting) scorecard, which divides measurements among the financial, operational, customer, employee, and innovation dimensions. A positive feature of this approach is the explicit inclusion of business development indicators, which acknowledge the expansion of activities in terms of partners, geographic diffusion, and projects. In the context of this thesis, these metrics are useful as well. Humanitarian consulting is a nascent business, and tracking its growth is relevant to consultants as well as donors. On the other hand, this tool does not offer a proper assessment of the consulting impact from a logistics perspective. In relation to the customer dimension, it is only given a simplistic indicator related to the realization of the expected benefits. The focus on inputs and activities rather than the final results of processes is a trend that affects measuring systems in both humanitarian supply chains (Beamon & Balcik, 2008) and the consulting sector (Winum et al., 2002). However, this approach offers a limited analytic capacity, as larger funding and resources do not necessarily lead to better services or increased capacity in providing solutions (Beamon & Balcik, 2008; Letts, Ryan, & Grossman, 1999).

4.3. PERFORMANCE EVALUATION IN THE HUMANITARIAN SECTOR

Given this discrepancy between the commercial and humanitarian sectors, a direct implementation of commercial performance measurement systems for humanitarian projects is not feasible (Holguín-Veras et al., 2012). Several authors adapted commercial tools to the humanitarian context, mostly for the development of Key Performance Indicators (KPIs). One of the most utilized frameworks is the balanced scorecard (BSC) that was first introduced in 1992 by Kaplan and Norton. For example, Moe et al. (2007) modified the measures in the four areas of this tool (process, operational, financial, and growth) to fit the needs of natural disaster management; in particular, they associated financial (traditional BSC) and donors' (humanitarian BSC) perspectives, as well as customer (traditional BSC) and target beneficiaries' (humanitarian BSC) perspectives. They then proposed a practical approach to implement their solution, and presented a case based on a flood disaster in the Hat Yai Municipality in Thailand. De Leeuw (2010) presented a solution based on Kaplan and Norton's strategy map (2000), which identifies a connection between performance measurement and corporate strategy. The author applied it to the humanitarian environment, developing a mission map to support organisations in setting goals that are measurable and in line with their strategic goals. Schiffing and Piecyk (2014)

combined the BSC approach with an in-depth stakeholder analysis, developing a measurement framework that can help humanitarian organisations to balance the needs of donors and final beneficiaries.

More recently, Lu et al. (2016) applied Stewart's (1997) SCOR model to humanitarian supply chains. Using a bottom-up approach, in collaboration with an international humanitarian organisation, they developed measurement metrics for the relevant processes, and then validated their applicability with other seven organisations. Others developed alternative frameworks, proposing assessment tools that differ from the traditional commercial ones. Beamon & Balcik (2008) adapted the methodology originally developed by Beamon (1999) to the humanitarian sector, identifying metrics belonging to the resource, output, and flexibility dimensions. Davidson (2006) proposed a set of four KPIs and subsequently applied it to two case studies from the IFRC, refusing the SCOR model because deemed too rigid for the humanitarian sector. However, none of these approaches emerged yet as a diffused standard for performance measurement in humanitarian logistics (D'Haene et al., 2015). The literature review suggests that Key Performance Indicators need to be tailored to the context in which the considered organisation operates, which may vary in terms of targeted population, players involved, type of project (Beamon & Balcik, 2008).

4.3.1. THE LOGFRAME APPROACH

The Logical Framework Approach (LFA) is a planning, managing, and monitoring methodology, developed in the late 1960s for the United States Agency for International Development (USAID) (Crawford & Bryce, 2003; Hummelbrunner, 2010). Although it cannot be considered a dominant standard, the LFA is currently employed by various humanitarian organisations, such as the IFRC and the WFP (IFRC, n.d.; WFP, 2010). It aims to assess the final impact of implemented actions, which is also the need that consultants face when they have to evaluate the long-term results of their services on beneficiaries.

The LFA generally results into a matrix, the logframe, which has the aim of planning and evaluating the project strategy (Crawford & Bryce, 2003). A template for a possible logframe matrix is shown in Figure 9. The matrix can be read along two dimensions. The vertical logic provides a hierarchy of objectives presented in the first column. The causal relationships between adjacent objectives are facilitated by the assumptions (preconditions) stated in the last column, creating an *if-then* structure (Crawford & Bryce, 2003). The horizontal logic provides details about each level of objectives, specifying the related measurement metrics, the means to verify them and, as already mentioned, the relevant assumptions.

Description	Objectively verifiable indicators (OVI)	Means of verification (MOV)	Assumptions
Goal/Impact <i>Sustainable development outcome expected at the end of the project.</i>	<i>Extent to which a contribution to the goal has been made.</i>	<i>How and who will collect the information on the indicator(s).</i>	--
Outcomes <i>Expected result of producing the planned outputs.</i>	<i>Extent to which outcomes have been met.</i>	<i>As above.</i>	<i>Preconditions for the goal.</i>
Outputs <i>Direct measurable results (goods and services) of carrying out the planned activities.</i>	<i>Milestones throughout life-of-project</i>	<i>As above.</i>	<i>Preconditions for outcomes.</i>
Activities <i>Tasks carried out to complete the project.</i>	<i>Activity schedule (actual vs. planned).</i>	<i>As above.</i>	<i>Preconditions for outputs.</i>
Inputs <i>Resources required to carry out activities.</i>	<i>Resources indicators.</i>	<i>As above.</i>	<i>Preconditions for activities.</i>

Figure 9. Logframe template. Source: adapted from Crawford & Brice (2003) and IFRC (2010)

Cited advantages of the LFA include the fact that it facilitates the planning of interventions in a structured way. Users are required to consider the causal relationships between the various steps of the matrix and to be transparent about the resources, activities, and expected results of planned projects. Also, it provides a visual overview of the main steps towards a certain goal, facilitating the monitoring of progress by supervisors or donors (Hummelbrunner, 2010).

On the other hand, practitioners highlighted some limitations that hamper the usefulness of the logframe. Crawford & Bryce (2003) focus on the issues that make this approach unfit for the project phases that follow design, namely monitoring and evaluation. Problems relevant in the humanitarian context are the absence of a time dimension and the static nature of the tool. Time is an important component of humanitarian projects, especially when assessing the impact of interventions. For example, results deriving from logistics consulting may become evident after a certain time lag from the closure of a project, with a rate that depends on the implementation strategy of the partner. Secondly, the traditional logframe fails to capture the dynamic nature of the humanitarian sector, which often requires an iterative approach between planning and implementation. Control over what has been planned at the beginning becomes excessive, resulting into a "lock-frame" that neglects the importance of flexibility (Hummelbrunner, 2010). Some practitioners also noted that the LFA may lead to short-term actions that produce tangible deliverables, rather than long-term development projects for the final beneficiaries (Jóźwiak, 2014).

4.4. TOWARDS A MODEL FOR LOGISTICS CONSULTING EVALUATION IN THE HUMANITARIAN SECTOR

As explained in the research problem section, the concept of logistics performance is open to various definitions. For the purpose of this thesis, two dimensions appear to be particularly relevant: efficiency and effectiveness. Taking into account the scope of the research, these ideas will be applied on two levels: logistics consulting organizations and IHOs receiving the consulting services. Efficiency refers to how well the available resources are employed, expressing the conversion from inputs to outputs (Crawford & Bryce, 2003; Fugate et al., 2010). Typically, efficiency can be operationalized as savings in terms of time or costs that are necessary to undergo a certain activity. Effectiveness is a measure of outcome and impact attainment (Fugate et al., 2010), that expresses how well an organisation is able to meet the planned objectives. It can be defined as the extent to which an organization can deploy a strategy that leads to its goals (Fugate et al., 2010; Mentzer & Konrad, 1991).

Taking these definitions as a starting point, the objective of this section is to present a model, shown in Figure 10, that involves the actors belonging to the thesis scope: logistics consultants, IHOs, and final beneficiaries. This model will draw from the Social Framework, an evolution of the LFA that describes the causality flow in a stakeholder-centred way (Hummelbrunner, 2010). By pointing out the members of the system, it is possible to visualize which changes are expected to happen as a result of each actor's actions. Actors are connected through relationships along which services, goods, information, and funding can flow.

The evaluation will consider three levels of performance metrics: inputs, outputs, and impacts, which are also present in the logframe approach. Sawhill & Williamson (2001) argue that organizations operating in the non-profit sector can evaluate their performance by assessing the mobilization of resources (inputs), the results of activities (outputs), and the progress towards the mission (impact). At this stage, outcomes and impacts are assumed to be identical concepts, defined as the sustainable results obtained after a certain project (Crawford & Bryce, 2003). As the considered consulting services have usually a narrow focus, it would be redundant to specify multiple outcomes leading to more general impact. However, this distinction can be added when deemed necessary to better explicate the dynamics of results.

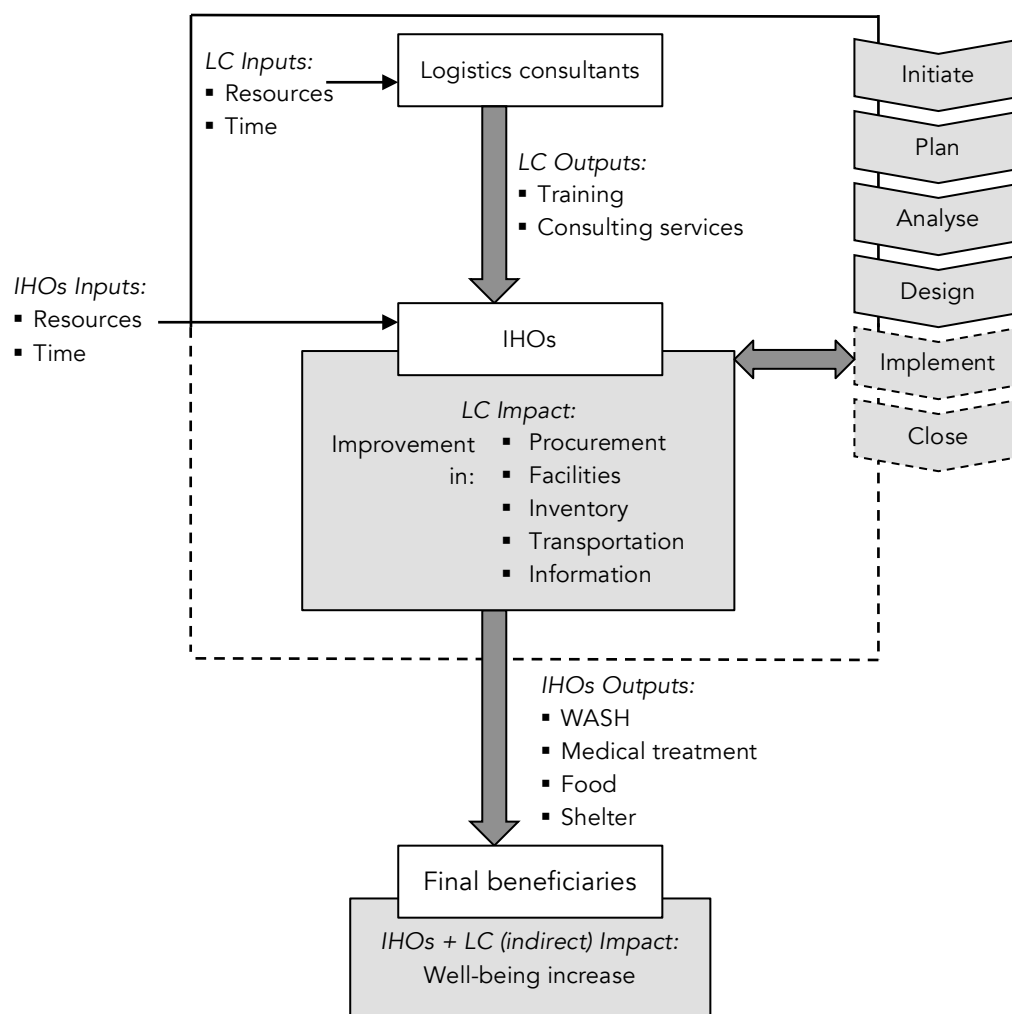


Figure 10. Model for logistics consulting in the humanitarian sector.
Sources: Chopra & Meindl (2013), Hummelbrunner (2010)

Figure 10 can be explained with an example. Consider, for instance, a humanitarian relief chain for food aid, acting in response to a famine affecting a developing Country. A hypothetical IHO struggles with the procurement and warehousing of the food items that need to be delivered and asks the intervention of a consulting organization. Logistics consultants set up a project with the partner, taking into consideration the available time and funding that can be deployed (*inputs*). The *project management* dimension will include the initiation and planning of the project, the analysis of the situation (for example evaluating the data related to current suppliers and visiting the warehouses where food items are stocked), and eventually the design of solutions. The *output* of logistics consultants is the delivery of recommendations such as the upgrade of the IT procurement system in order to reduce the redundancy in communications and the improvement of the central warehouse climatic conditions to avoid the deterioration of stocks. Up to this point of the framework, logistics consultants have a direct influence over the intervention, conditional to the degree of collaboration of the partner organization. In the model, this is

graphically represented by a solid line that surrounds the system. The *impact* of consulting on the logistics (or, at large, the supply chain) processes of the partner IHO can be described as the improvement of logistics performance drivers. These include the dimensions of procurement, facilities, inventory, transportation, and information (Chopra & Meindl, 2013). In the example of food aid, the performance improvement can be assessed through operational KPIs like reduced lead-time or reduced amount of wasted stock. An alternative could be the deployment of surveys to assess the changes that occurred after the consulting or training intervention. The issue is that impact can only be achieved if the output of logistics consultants is implemented by the partner organization. Looking at the project management phases, consulting organizations usually do not have direct control over the implementation and closure of interventions. This is represented by a dashed line surrounding the system, as the degree of influence by consultants depends on the willingness of IHOs to collaborate for these project phases. In other words, consultants need to find ways to effectively manage their projects in order to have an impact.

The IHOs that is bringing food aid to the final beneficiaries is also characterized by certain *inputs* (financial, technical, human resources) and *outputs* (e.g. food kits for the targeted population). These elements are outside the project management scope of logistics consultants, who do not have any control over them. The *impact* of IHOs can be assessed as the extent to which the well-being of beneficiaries has been improved. The concept of well-being is operationalized depending on the context of intervention. In the food aid example, it is represented by the prevalence of malnourishment within the targeted population. At this stage, the indirect impact of logistics consultants could be assessed as the increased effect obtained as a consequence of the consulting intervention, compared to the baseline situation (no consulting). However, this scenario analysis would be quite speculative. Establishing a chain of causality between outputs and impacts requires the explication of assumptions that act as preconditions for the achievement of results (Crawford & Bryce, 2003). Although the causal link between consulting services and well-being improvement of beneficiaries is hard to show in practice, it is still useful to include it in the conceptual framework. The related evaluation may be “soft” and not based on sound data, but still provide qualitative insights that logistics consultants can use to validate their work when confronting donors. Finally, additional external factors may play a role towards the achievement or failure of planned goals. In the example, a seasonal improvement of weather conditions may lead to an outstanding crop yield; in this case, the reduction of malnourishment would be recorded even if the food aid intervention were not fully successful.

Table 3 sums up some evaluation measures that can be used to assess the performance of logistics consultants and IHOs in the presented food aid example.

	Logistics consultants	IHOs
<i>Efficiency (output/input)</i>	<ul style="list-style-type: none"> ▪ # recommendations/dollar (or working days) ▪ # staff trained/dollar (or working days) 	<ul style="list-style-type: none"> ▪ # food kits distributed/dollar ▪ # calories distributed/dollar
<i>Effectiveness</i>	<ul style="list-style-type: none"> ▪ % procurement lead-time decrease ▪ # wasted stocked items decrease ▪ # beneficiaries reached by trained staff 	<ul style="list-style-type: none"> ▪ % prevalence of malnourishment decrease

Table 3. Efficiency and effectiveness-related measures for food aid example.
Source: own elaboration

5. ANALYSIS OF INTERVIEWS

This chapter presents the findings obtained through conducted interviews and review of secondary sources from involved organizations. The first part reviews the current situation of consulting organizations with respect to their service portfolio, performance management and performance measurement. In addition, it provides three examples of previous consulting projects, analyzing the initial situation, consultancy contents and results, implementation of solutions, and measurement of results. This analysis allows answering to RQ2. The rest of the chapter focuses on two macro-themes addressed during interviews: performance management challenges that reduce the impact of consulting services (RQ3) and best practices for effective performance management (RQ4).

5.1. MARKET TRENDS ON LOGISTICS CONSULTING IN THE HUMANITARIAN SECTOR

The goal of this section is to identify the main trends about logistics consulting services available in the humanitarian sector. The analysis will first look into the offering of HELP Logistics, as it represents the focal case of this work. Then, it will investigate the portfolio of other companies delivering comparable services to IHOs.

5.1.1. HELP LOGISTICS' SERVICE PORTFOLIO

The offering of HELP Logistics grew steadily in the last years. As already mentioned, the organization originally focused more on training, but later understood the potential of consulting in terms of business development and effective impact. Currently, the portfolio is clustered around three main work streams: supply chain optimization, capacity strengthening, and collaboration and outreach (Figure 11).

Supply chain optimization (consulting services). HELP Logistics performs the analysis and optimization of the partner's logistics/supply chain processes and systems, with the goal of making them more efficient and effective. The organization has a standard set of tools that can be adapted to the specific needs of the client IHO. This group includes, among others:

- The *Advanced Spend Analysis tool*. This toolkit allows IHOs to enhance their sourcing approach and procurement capabilities. It analyses the organizational procurement data in order to understand what is purchased, from which vendors, and at what price. Information is sourced through spreadsheets from local offices and processed to

obtain a rich visualization of how the money is flowing from sourcing to distribution. The final objective is to present potential cost savings and alternative procurement strategies that can help the partner to extract more value from money. Box 1 sums up a procurement project (which included a spend analysis) performed for an international NGO in the Philippines (Stumpf, Foehse, & Godfrey, 2016).

- The *Medical Logistics Assessment* tool. Medical supply chains present specific challenges related to stricter regulations, warehousing conditions, and high products costs. This assessment delivers to partners a comprehensive evaluation of their medical logistics processes, in order to improve the delivery of pharmaceutical items to final beneficiaries. Box 2 provides an example for the application of this tool for the pharmaceutical supply chain of an international NGO in Myanmar.

In April and May 2015, HELP Logistics worked jointly with an international NGO in the Philippines and analysed its procurement process to verify whether obtained prices were competitive and to provide recommendations on how to improve the existing practices.

First, a *spend analysis* was conducted, revealing that around 80% of the total procurement expenditure could be attributed to seven items categories. The visualization of how much the NGO was spending with different suppliers highlighted opportunities for strategic sourcing and, in turn, spend reduction. The spend analysis also led to the selection of eleven key items, whose price was tracked through the developed *price-capturing mechanism*. This tool allows registering in an Excel spreadsheet the price evolution of purchased goods and automatically calculates a benchmark price per each item. Benchmark prices are then compared with the actual paid prices to determine a theoretical cost efficiency and theoretical cost-reduction potential. Even if benchmark prices do not include indicators of quality yet, they provide an overview of areas where the cost performance can be improved.

All in all, HELP Logistics' intervention provided tools to strengthen the negotiating position of the NGO with its suppliers. Suggested recommendations included the introduction of a quality evaluation system, the creation of a joint procurement hub with other IHOs, and the supplier base extension. Referring to the presented model, the consulting service had a direct logistics impact in terms of procurement savings (operationalized as cost-reduction potential). Conditionally to data availability, it could be possible to estimate, for instance, the additional amount of relief items that can be provided to final beneficiaries as a consequence of these cost reductions.

Box 1. Procurement project. Source: Stumpf et al. (2016)

In 2016, HELP Logistics conducted an assessment of the pharmaceutical supply chain of an international NGO in Myanmar, deploying a team for three weeks. The analysis focused on the four key areas of the medical supply chain cycle: (i) selection and quantification of items; (ii) procurement; (iii) warehousing and distribution; (iv) use of health kits. Each of these steps was evaluated with respect to its most critical aspects, highlighting the relevant challenges that served as an input for recommendations. This resulted in a final report, which included an action plan for performance improvement. Recommendations were disaggregated into more specific actions, in order to facilitate their achievement and implementation. For example, the recommendation "Reduce stock to 3 months for all field sites" was divided into "Ensure environmental conditions of warehouses" and "Improve demand planning including quantification". Finally, each recommendation was coupled with a process owner and ranked as critical, high, or low, depending on its urgency.

Box 2. Pharmaceutical supply chain assessment. Source: Kuehne Foundation (2016)

Capacity strengthening (training). HELP Logistics offers learning programs that cover the relevant aspects of humanitarian supply chains, in order to fill knowledge gaps that are present within humanitarian organizations. As already noted, lack of professional logisticians is one of the main challenges of this sector (Thomas & Kopczak, 2005). On the operational level, training deals with basic tasks such as how to drive a forklift or how to stack a warehouse. Sessions have already been tested in several occasions, and are usually delivered in progressive modules. On the tactic level, the organization offers an executive course for middle managers. Humanitarian managers usually have good technical knowledge, but have not learned formally what they need in terms of project management, leadership, or soft skills.

Collaboration and outreach. Collaboration with multiple partners from various sectors (such as private companies, academia, aid agencies) supports sustainable change by establishing valuable relationships. This work stream also fosters business development, by promoting HELP's visibility at conferences, trade shows, or through publications and seminars. Through its projects, HELP Logistics gains insights into the sector and can advocate and promote change.

The three work streams are supported by *product development*. This is a platform function that is used for the development of tools and contents that can be implemented in the three work streams. These include the above-mentioned Advanced Spend Analysis and Medical Logistics Assessment tools, the training programmes, as well as the material that is used to promote the organization.

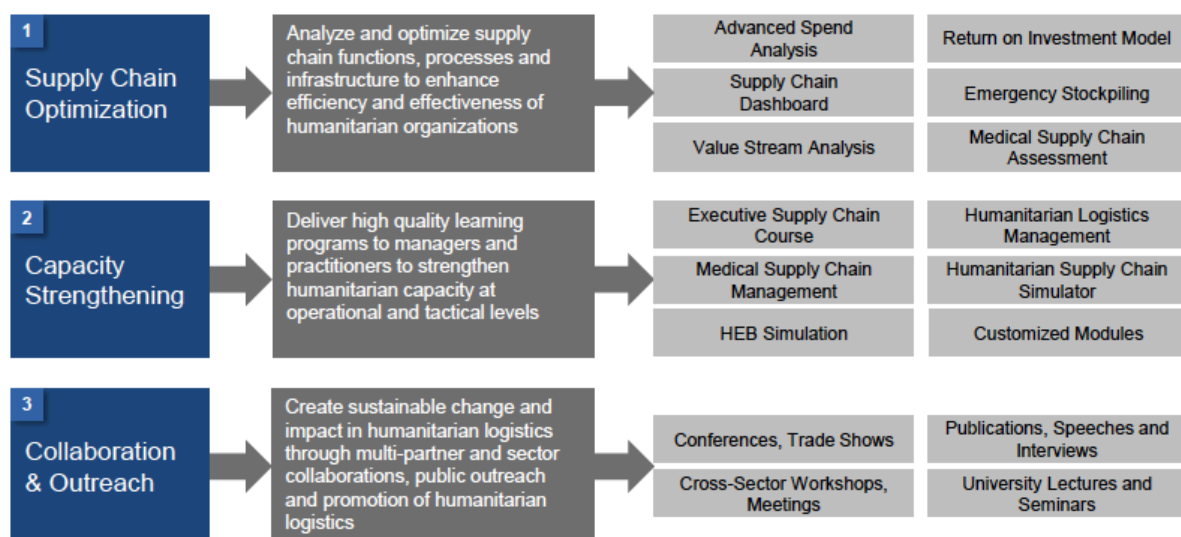


Figure 11. HELP Logistics' service portfolio. Source: Kuehne Foundation (2016)

To conclude, HELP Logistics bases its competitive advantage on three main aspects: (i) the high quality of services, ensured for instance through the collaboration with leading academic institutions; (ii) the customization of standard services, based on the specific needs of the partners; (iii) the regional presence of offices, which allow a local delivery of services.

5.1.2. BENCHMARKING OF LOGISTICS CONSULTING SERVICES

When HELP Logistics first started its business in 2010, the approach of providing logistics expertise rather than in-kind or cash donations was rather uncommon. To date, the number of players in this field is still rather limited, if we consider the scope that applies to this research – i.e. the inclusion of *logistics consulting* as a core offering in the organisational service portfolio. Still, it can be argued that there is a positive trend in terms of market growth. Besides the increase in the number of players, organizations like HELP Logistics are involved in more and more projects, thanks to a combination of humanitarian needs (demand pull component) and business development (demand push component).

The current market for humanitarian logistics consulting can be broadly divided into two classes of organizations. On the one hand, there are small enterprises (11-50 employees) (Eurostat, 2017), whose target uniquely refers to the non-profit and humanitarian sector. In other words, these organizations do not have commercial clients and focus on the provision of services for humanitarian actors. Table 4 provides a list of small enterprises whose service portfolio is relevant for this research. Please note that other organizations providing services in the humanitarian sector have been excluded for one or more of these conditions: (i) they did not offer consulting services; (ii) none of the available consulting services did not belong to the logistics/supply chain field; (iii) they acted as 3PL, providing only assets rather than knowledge and skills.

Organization name	Year of foundation	Website
Global Emergency Group	2007	http://www.globalemergencygroup.com
HELP Logistics	2010	https://www.kuehne-stiftung.org
Humanitarian Logistics Organisation	2013	http://www.humanilog.org
Pamela Steele Associates	2013	http://www.pamsteele.co.uk

Table 4. Logistics consultants in the humanitarian sector considered in the research.

Sources: see websites in the last column

The second category of organizations operating in this sector includes well-established international consulting companies, which offer their commercial expertise in the humanitarian sector too. Deloitte UK and Boston Consulting Group (BCG) offer two examples. In 2013, Deloitte UK teamed up with Save the Children International (SCI) within the framework of its Humanitarian Innovation Program. The objective was to assess how SCI could scale up and down its supply chain processes from every-day conditions to a large-scale emergency response, in order to deliver efficient and effective aid. The project resulted into an analysis of SCI's operational model and a strengthening of the response methodology (Deloitte, 2017). Similarly, in 2003 BCG collaborated with the United Nations World Food Programme (WFP) in southern Africa, where a strong crisis was taking place in the fields of healthcare, agriculture, and education (Burlando, Van Wassenhove, & Voorhes,

2006). Although several relief agencies were deploying aid, the supply chain actors were not able to properly coordinate their efforts, leading to inefficiencies and waste of resources. Therefore, the partnership had the objective to design a collaborative structure for humanitarian organization in order to maximize the effectiveness and efficiency of their operations. While smaller consulting organizations focus all their efforts in targeting humanitarian clients, big companies generally offer these services within the framework of Corporate Social Responsibility (CSR) programmes.

To sum up, although logistics consulting interventions depend on the challenges presented by specific humanitarian organizations, there is a tendency to standardize services into tools that create a comprehensive offering. These tools are then adapted to the context of the partner, taking into consideration the existing situation, available resources, involved stakeholders, and agreed objectives. The idea of articulating the service portfolio using a commercial language (such as the Advanced Spend Analysis or Return on Investment Model developed by HELP Logistics) helps a clearer reporting of activities and objectives to donors and other relevant stakeholders. In other words, this approach allows to consistently explain what is delivered and to track the organizations' fields of intervention in a more systematic way.

Another remark is that offered logistics consulting services are often framed having the concepts of "assessment", "evaluation", "optimization" as objectives. These goals are usually structured around one or more key steps of supply chains – i.e. procurement, warehousing and inventory management, and distribution. As sourcing is the most expensive component in humanitarian supply chains (Pettit et al., 2005), various logistics consulting services have a specific focus on the improvement of procurement processes, in order to cut the related costs and lead-times. Optimization services can be declined to particular sectors to better fit their needs. To this respect, most of the identified organizations also provide consulting interventions that are tailored to pharmaceutical supply chains.

As already presented for HELP Logistics, consulting services are usually part of a broader portfolio, which includes activities such as trainings, IT development, or public outreach. From the perspective of performance improvement, these additional services can be seen as support elements to enhance the impact of consulting interventions. For example, the necessity for trainings may arise as a consequence of supply chain optimization projects in which the lack of logistics skills emerge as a relevant problem. On the one hand, capacity strengthening may lead per se to a performance improvement, for example by reducing the lead-times that are necessary for logistics operations. The idea is that humanitarian relief quality heavily depends on the expertise of the people who are involved in the projects (Bioforce Institute, 2016). This is the rationale that leads organizations such as RedR UK or the Bioforce Institute to focus specifically on trainings for the humanitarian sector. On the other hand, building the humanitarian staff's skills creates

the conditions for a smoother deployment and implementation of logistics consulting. Public outreach offers support for increasing consulting impact in the form of business development opportunities. By promoting their visibility in the humanitarian sector, these organisations can extend their network, engage in long-term partnerships, and show what they can offer to IHOs. All in all, a combination of a range of services that include both consulting solutions and trainings can lead to an impactful value proposition and a competitive advantage on the market.

5.2. PERFORMANCE MANAGEMENT AT HELP LOGISTICS

The objective of this section is to introduce the current situation with respect to performance management within HELP Logistics. Performance management is an essential requirement in order to guarantee an effective and measurable improvement of IHOs' logistics processes (Abidi et al., 2014). In other words, the methodology for delivering consulting services plays a key role to obtain an impact.

5.2.1. PROJECT MANAGEMENT APPROACH

HELP Logistics bases the management of projects' performance on a cycle of six main subsequent phases. Specifically, they are: (i) *initiation*, to clarify HELP Logistics' activities and business model to the potential partner and formalize the IHOs' interest for a collaboration; (ii) *planning*, through the definition of a project charter on which both parties agree before the kick-off of the intervention. The project charter is an important tool that pushes partners to articulate the problem that should be solved, the methodology to use, which are the expected outcomes to be delivered. A shared, tangible, and realistic definition of the intended results is essential for the subsequent implementation of consulting recommendations; (iii) *analysis*, performed either with the standard tools or customized solutions; (iv) *design* of solutions, recommendations, and presentation of the findings to relevant stakeholders; (v) *implementation* of solutions. This step is crucial for improving the logistics performance of the partner IHO, and will be later discussed more in detail. It is evident that implementation is a necessary condition for generating an impact through consulting services. Performance management should therefore pay particular attention to this stage of the process. As already anticipated in relation to model at p. 33, logistics consultants have a direct control over the project until the design phase. However, implementation can only be influenced indirectly, to an extent that depends on the willingness of IHOs to involve the consultants; (vi) *closure*, in which the project is concluded and opportunities for further collaboration are discussed.

5.2.2. FUNDING AND PROJECT CRITERIA

HELP Logistics also defined *funding and project criteria*, to facilitate the effective management of projects' performance. First of all, the organization requires that the above-

mentioned project charter is signed before the beginning of activities. Secondly, the partner needs to demonstrate its commitment in terms of resources to be deployed and active participation in the project. This is essential to marginalize the risk that IHOs agree to join consulting programmes with the sole objective of obtaining free services, without a concrete interest in improving logistics. Thirdly, HELP Logistics strives for clarity about funding, pointing out that the organization does not provide equipment or assets, in order to eliminate confusion over payments involved within the scope of projects. Finally, transparency needs to be applied at all project stages; any change over the agreed plan has to be made in accordance with all parties.

5.3. PERFORMANCE MEASUREMENT METRICS CURRENTLY ADOPTED

Performance measurement is an important building block within the framework of performance management, as it provides metrics to assess whether logistics consulting services have a concrete impact on the IHOs' processes. The development of a suitable assessment tool can offer support in establishing how the system has evolved from the baseline situation (pre-intervention) up to the implementation of outputs.

As noted by Beamon & Balcik (2008), non-profit organizations tend to focus on the assessment of their inputs rather than their outputs or impacts, often to obtain higher contributions from donors. This led several organizations to the adoption of a "bucks and acres"¹ culture in developing metrics systems (Sawhill & Williamson, 2001). However, higher financial inputs do not necessarily lead to better services and improved conditions for the client (Letts et al., 1999). Interviewed consultants also confirmed this tendency.

"It becomes hard to measure impact, but it is easier to measure performance internally in terms of things such as number of partners, number of projects, scale of projects, and amount of trained people ... In other words, our activity."
[LC2]

This trend is common among the considered consulting organizations. However, it emerged that these organizations acknowledge the importance of measuring their performance in a more comprehensive way. HELP Logistics is moving in this direction. The management started collecting many different metrics, organized in a matrix. Although none of these KPIs are currently used in a systematic way, there is a clear intent to define a set of metrics to be adopted. The matrix is organized as follows. Along the horizontal dimension, KPIs are divided according to three *levels of detail* which, moving from specific to general, are: (i) project level, that refers to a single intervention; (ii) regional level, accounting for the three geographic areas where the organization operates (Asia-Pacific,

¹ The term "bucks and acres" originally refers to the tendency of non-profits for nature conservation to measure their success as the amount of donations received and acres of land bought per year (Sawhill & Williamson, 2001).

Eastern Africa, and Middle East); (iii) global level, which provides cumulative indicators for the overall performance of HELP Logistics. Along the vertical dimension, KPIs are divided into five main categories. The first two, namely resource utilization and financial, can be regarded as inputs for the organization, tracking the available staff and how it is deployed, as well as which costs the disposable funding is spent on. The project category mostly provides indicators about the activities and outputs of the organization; it measures the number of projects in the various project management phases and the duration of those that have been completed. The workstream category deals with the impact of interventions, evaluating for instance quick fixes, lead time reductions, cost savings, and satisfaction rate. Finally, the partner and clients category includes indicators concerning business development, such as number of partners and retention rate.

Interviews with HELP Logistics' managers highlighted how this matrix can serve as a valuable input for developing an evaluation tool for the organization. It was also noted that, at the moment, there are some criticalities related to it. Firstly, this set includes all the KPIs that could possibly be considered and is therefore too wide, without a precise focus. It should be stressed that one of the main challenges is to define the right set of KPIs for different audiences. For example, while the Board of the organization may be more interested in strategic metrics, the regional directors prioritize operational dimensions. Also, retrieving all the data that is necessary can be complicate, due to the staff's limited time and the fact that partners should be involved to get part of the information. Focusing on the supply chain optimisation (i.e. consulting services) work stream, HELP Logistics' project charter currently proposes three main indicators: (i) number of recommendations delivered; (ii) number of recommendation implemented; (iii) partner satisfaction rate. Although the second indicator assesses the impact of consulting services in terms of ability to change the partner's processes, it needs to be operationalized more clearly for the evaluation of *logistics performance improvement*. That is, given that the client IHO adopted a certain number of recommendations, the question is what benefits have been gained from a logistics perspective.

Generally, it appears that at the moment the considered organizations do not have a structured and consistent tool for measuring their impact in terms of performance improvement within the partner organization. This is mainly due to the existing challenges in terms of performance management that will be presented in section 5.5.

"So far we do not have a standard measurement system for performance improvement, but we measure how many clients we have, how many concepts for services we developed, how many proposals we delivered ... However, we do not measure through logistics KPIs the performance improvement within our clients." [LC5]

5.4. CONSULTING PROJECTS EXAMPLES

The objective of this section is to provide three examples about past logistics consultancy project between different organizations. The choice of these cases mainly relied on the principle of convenience, as the necessary information could be obtained from available contacts. At the same time, the decision to include them was based on their ability to show different facets of consulting interventions, which may vary with respect to projects size and scope, as well as the extent of implementation. The rationale for presenting these cases is that they offer insights about the actual content of the interventions considered in this thesis, as well as the involved phases and different approaches to implementation.

Table 5 summarizes some information about the parties involved in the examples. Whenever, for privacy reasons, the name of people and/or organizations could not be provided, a pseudonym was adopted.

Example	Organization name	Organization description	No. of employees
1	Panalpina	International provider of forwarding and supply chain services	> 10,000
	IHO A	International NGO focusing on the alleviation of poverty	201-500
2	TNT (fmr TPG)	International mail delivery and logistics service provider. Demerged into TNT Express and PostNL in 2011	> 10,000
	WFP	UN Humanitarian Programme addressing hunger and food security	> 10,000
3	HELP Logistics	Non-profit consulting organization for humanitarian supply chains	10-50
	WVI / WVC	International NGO for children well-being / Cambodian branch	> 10,000

Table 5. Organizations included in the examples. Source: organizations' websites

5.4.1. PANALPINA – IHO A: IMPROVING REHABILITATION LOGISTICS

In 2013, the typhoon Haiyan hit the Philippines. John (fictitious name), Country Director of IHO A, moved to the disaster area to direct the humanitarian projects. The natural disaster had left a lot of destruction behind, disrupting infrastructures and isolating remote areas. Haiyan hit the Eastern and Western Visayas regions hard: more than 7,000 people were killed, and over 28,000 injured. In the days and weeks that followed, more than one million homes were severely damaged or destroyed and 4.1 million people were displaced within the country.

John's team had the task to support the recovery phase of the humanitarian intervention, which included two main mandates. Firstly, from May 2014 to August 2016, IHO A worked on the reconstruction of 80 classrooms in seven different schools. The plan

also included external toilet blocks, schools walls, kiosks, drainage systems and software support. Secondly, the organization proceeded with an owner-driven housing reconstruction project (1,200 units), lasting from spring 2015 to summer 2017.

5.4.1.1. INITIAL SITUATION AND RATIONALE FOR CONSULTING

IHO A's operations for the housing project focused on two main areas in North Cebu, namely Bantayan Island and Kinatarkan Island. The initial logistics concept was to have a direct delivery of material from suppliers to the beneficiaries in the two locations. While this was possible on Bantayan Island (allowing to minimize the logistics set up and costs), the lack of infrastructures and services on Kinatarkan Island required a change in strategy. IHO A had to set up its own warehouse and transportation system to move materials to and within the island.

The main challenges IHO A had for the humanitarian projects were the supply timing, quantity and the quality of materials that were required. Shops were available only on Bantayan Island, but the quality of material needed (e.g. the quality of stones that they used needed to allow earthquake and typhoon resistant construction) was not available locally.

“Time is also an issue; suppliers are not always reliable, they can be late with the delivery of procured materials, provide substandard quality, or simply wrong items.” [John]

This situation slowed down operations, making the recovery longer and more costly. The problems with suppliers were leading to issues such as delays in incoming material and distribution to the construction sites. Besides the limitations of suppliers, John also reckoned that he was facing internal challenges, as the newly recruited logistics team did not possess sufficient knowledge and the person who was supposed to drive operations was overwhelmed by the existing problems.

“We had issues due to the fact that the humanitarian team was not so well prepared and the person in charge was not experienced and pro active enough to handle logistics properly.” [John]

The team was caught up in addressing daily issues on a case-by-case basis. Thus, the project lacked a clear long term planning of transport capacities and processes to deliver materials from the warehouse to the beneficiaries and for materials that had to be restocked on the island regularly.

Aware of the fact that IHO A needed an external help to improve the existing situation, in 2016 John decided to send a request for support to the organization's headquarters. This led to contacting Carlo Quirici, an experienced logistics consultant working for Panalpina. In short, the objective was to review and improve the existing logistics set up and procedures to ensure that material arrived on time and in required quality on Kinatarkan Island.

5.4.1.2. CONSULTING INTERVENTION

After Carlo arrived in the field, IHO A's team briefed him about the existing issues and problems. John and his team did not really know what to do and where the problems were; Carlo had the freedom to act as he believed it was useful. IHO A's structure in the Philippines is very slim and it was therefore relatively easy to understand the setup and involved tasks.

"The mandate was quite open, he was sent out for about two weeks to look at how logistics worked on Kinatarkan Island and then come up with suggestions to improve processes." [John]

Besides the optimization of logistics, John was also expecting a transfer of knowledge and expertise from Carlo to his national staff (e.g. tools to improve transportation, warehousing, stock management).

The consulting approach consisted of three main steps: (i) analysis and review of existing structure and human resources setup; (ii) analysis and review of existing management practices/tools; (iii) recommendation of improvements and implementation of such, if possible. These objectives were based on the terms of reference (ToR) drafted before the beginning of the project.

Carlo proposed a restructuring of the logistics team to better manage the warehouse. Also, several planning tools were introduced, including: (i) stock cards to measure weekly stock and define order levels; (ii) a distribution system "by wave", which divided the materials needed for construction into five subsequent waves in order to avoid delays in the construction process; (iii) move forms, where possible, from paper to Excel sheets and standardize paperwork; (iv) a batch and daily planning tool to guarantee material availability on site; (v) regular coordination meeting among the different actors of the logistics chain.

5.4.1.3. IMPLEMENTATION OF RECOMMENDATIONS

Following the analysis of existing practices, some immediate actions were taken to avoid further delays in the construction works. This included the establishment of contacts with a new coco supplier and the introduction of a joint transportation planning to increase truck utilization.

Most of the improvements in logistics performance were facilitated by an implementation plan that Carlo delivered. The consulting mandate was concluded with the delivery of the recommendations and tools mentioned above. IHO A proceeded autonomously with the implementation of changes within the logistics team.

"We basically followed this plan by ourselves, as Carlo's consultancy finished before the implementation." [John]

According to John, the autonomous implementation of solutions was facilitated by the fact that the organization recognized in Carlo an expert who could positively contribute

with his background knowledge. The assessment was supported by quantitative data such as the required number of trucks for material delivery, and the comparison between capacity increase costs and delay costs. Carlo provided clear documents that specified issues such as the planning of spaces and processes in the warehouse and based on that he proposed changes/adaptations.

“Carlo had a very convincing personality, he was very professional and calm; that was already a good sign of professionalism. What we got was fact-based, supported by calculations. He could argue his cases. Before that, the admin expat was only anticipating things and making estimations.” [John]

5.4.1.4. FINAL SITUATION AND MEASUREMENT OF RESULTS

John reckoned that IHO A did not specifically measure the impact of the consulting intervention. To him, performance measurement consisted of checking whether operations were working better after the implementation. One of the limitations to a more systematic assessment was the lack of a proper management IT system; the organization is small and does not possess any institutional tool to track data (e.g. a software for stock management, which is mostly done on paper or Excel).

“In terms of logistics KPIs, I would of course like to know more where and how much delay we had in order to fix that ... We struggled very much with partial deliveries of suppliers and the follow up on it. This was mainly due to the lack of an integrated system. At times, my logistic department was not able to tell me exactly how much items we have in our stock. While everything was written down somewhere on a piece of paper, information was not consolidated and centralized and linked with financial data.” [John]

Even if a systematic measurement of the logistics performance improvement did not happen, the logistics team realized that the construction project could be rolled out more easily after Carlo’s intervention.

“I could see that the delays of supplies went down, the material started to arrive on time, the construction team complained less about material availability at the construction site.” [John]

Looking back, John recognized that implementation and measurement could have been facilitated by a return of Carlo after a few months for a follow-up session. Although implementation would have had the same resources constraints, the consultant’s presence at a later stage would have encouraged commitment by humanitarian workers, also providing an occasion to assess the progress made.

“What could have been done more, besides initiating the consultancy earlier or even in the planning phase, is to come back after a few weeks to follow up on the implementation of recommendations ... It would have helped to have his perspective as an external consultant about the progress made after he had left. Also, for our national staff it could have been an incentive to know that the consultant was coming back and that he would have checked what had been done.” [John]

5.4.2. TNT – WFP: THE *MOVING THE WORLD* PARTNERSHIP

“Moving the World” is a partnership between TNT (formerly TPG) and WFP that was initiated in 2002. Peter Bakker, who at the time was TNT’s CEO, had the desire to engage in CSR initiatives that could go beyond the borders of its company, with the objective of turning TNT into a “Social Leader” by sharing its expertise in the logistics business. This initiative has also been the subject of various case studies, published by INSEAD, which presented the partnership’s initiation, scoping, and evaluation (Gatignon & Van Wassenhove, 2009; Samii & Van Wassenhove, 2004; Tomasini & Van Wassenhove, 2004).

5.4.2.1. INITIAL SITUATION AND RATIONALE FOR CONSULTING

When, in January 2002, TNT started looking for a suitable partner, four main decision criteria were defined in order to facilitate an effective impact (Tomasini & Van Wassenhove, 2004). In order of importance, these were: (i) organizational fit. The selected IHO had to place high importance on logistics; (ii) interest and attitude, to ensure commitment; (iii) cultural match. TNT wanted to avoid organizations where bureaucracy hampered action-driven operations; (iv) geographic scope. After a selection process that lasted a few months, WFP emerged as the most suitable partner (Tomasini & Van Wassenhove, 2004).

The objective was to generate a win-win situation, in which both parties could extract benefits. On the one hand, TNT saw the partnership as a chance to increase employee engagement and reputation. Also, the company could learn more about the local situation and logistics needs of regions where it was not a key player yet, such as Southern Africa. On the other hand, WFP wanted to leverage TNT’s expertise to improve logistics efficiency and emergency response, and to generate awareness about its activities. As emphasized by Marco Hendriks, one of TNT’s managers involved in the partnership:

“The idea of making a difference was not only based on funding and sponsoring WFP by x million per year, but instead to contribute in terms of services, projects and initiatives in order to improve the efficiency and effectiveness of WFP and TNT. It is not a one-way initiative ... there are two partners and you need to balance the contribution, responsibility, and added value. This is a key factor.”
[M. Hendriks]

5.4.2.2. CONSULTING INTERVENTION

TNT asked to WFP to organize a visit in Tanzania for some of its managers, in order to understand the activities that were carried out, as well as the local conditions and how TNT could contribute to performance improvement (Tomasini & Van Wassenhove, 2004). This retreat fostered a joint discussion about potential areas of collaboration. As a consequence, five main initiatives were identified: School Feeding Support, Private Sector Fundraising, Emergency Response, Joint Logistics Supply Chain, and Transparency and Accountability (Samii & Van Wassenhove, 2004).

School Feeding Support. WFP had been running a Global School Feeding Campaign, with the aim to deliver food directly to schools, so that children would be fed and, at the same time, incentivized to get an education. TNT contributed through the optimization of the transportation system from the distribution centre to all the schools participating in the project.

“We had tools, processes, and systems: we developed a package for solving transportation inefficiencies. This included a mapping of the schools, a replenishment plan, quantification of needs. The intervention led to costs savings in running operations that could be quantified. Saved money could be used, for example, to get more food and involve other schools in the project.” [M. Hendriks]

TNT’s employees were directly involved in the initiative and sent for a few months to the field to assist WFP’s operations. This experience created enthusiasm towards the partnership and was an occasion for sharing best practices and impressions upon the return to TNT.

“Communication is key, because the rest of the organization (thousands of people) wants to know how you are doing in the project and which progresses have been made. Story-telling was a very important aspect.” [M. Hendriks]

Private Sector Fundraising. The objective of this initiative was to diversify WFP’s donor base, which mainly consisted of governments. The organization realized that an increasing number of companies were willing to provide services or assets instead of financial donations (Samii & Van Wassenhove, 2004). The partnership with TNT allowed reaching out new business partners, such as BCG, which committed itself to pro-bono collaborations in 2003.

Emergency Response. The initiative focused on the improvement of WFP’s effectiveness in responding to emergency situations, by applying TNT’s expertise in express logistics systems. The initiative included the improvement of several distribution processes, such as the delivery of low volume, high-value ICT equipment to emergency areas (e.g. South East Asia during the Asia tsunami, or Southern Africa during a food shortage emergency). TNT provided support in terms of “storage, handling, transportation, clearance and delivery” (Samii & Van Wassenhove, 2004, p. 10), by standardizing and streamlining logistics operations. Also, stand-by multifunctional teams were deployed right after disasters, to coordinate emergency operations.

“We made available all kinds of functions that you need for the coordination of a huge emergency response when there is a problem in the road ... The challenge is to coordinate the transportation of all of that [food and non-food items]. Think about an airport, where you suddenly have a dramatic increase in the number of planes that need to land on a daily basis. To manage that, you need the right people and teams.” [M. Hendriks]

Joint Logistics Supply Chain. While Emergency Response was more focused on the improvement of responsiveness, this other logistics initiative had the objective of increasing efficiency of operations. The main targets were fleet management and warehousing optimization. For example, WFP's warehouse in Brindisi, Italy, was given a new layout and inventory tracking was introduced (Samii & Van Wassenhove, 2004).

Transparency and Accountability initiative. This area did not target logistics directly, but was rather meant to improve support functions such as budgeting and administrative procedures.

TNT and WFP had to learn how to cope with their differences at various stages of the partnership. This was necessary to facilitate and measure the logistics performance improvement. Diversity existed in terms of decision-making structure and managerial accountability (Samii & Van Wassenhove, 2004). TNT's business-oriented mentality led to the fact that its managers were pushing for logistics initiatives as soon as possible, before having a precise idea of where they could help. However, the parties realized that it was necessary to carefully assess the existing needs before committing resources.

"As partners, you need to jointly identify, analyse, and model what is required by the humanitarian organization. Don't step into the organization saying, 'This is what you need and this what we are going to do about it'. You should try to understand together what is the need and room for improvement, what is the current situation, and then build a solution. Don't be arrogant, listen carefully, observe, discuss ... when a project is successful, then you can proceed in other countries." [M. Hendriks]

5.4.2.3. IMPLEMENTATION OF RECOMMENDATIONS

TNT generally supported the implementation of solutions that were provided for the various initiatives. Interventions were mostly project-based, with teams that included people from both WFP and TNT, who followed up the projects in all their phases. Although TNT's staff could not be always present for the implementation phase, implementation packages were developed and rolled out for a couple of countries. By then, WFP's teams had gained enough expertise to replicate the deployment autonomously. Joint collaboration from beginning to end was considered a key element for the success of logistics consulting.

"Giving advice and recommendations alone will never work in the humanitarian sector. Implementation is something that can be very challenging. You need to create with them a package that is fully understandable, that is step-to-step built up, and can be replicated ... If you only follow 30% or so of the project, forget it. It's not going to work." [M. Hendriks]

It was noted that the partnership worked well because it lasted for a sustainable period of time (4-5 years before renewal), enabling the definition of a programmatic agenda and the presence of consultants until the last mile of projects.

“Given the slow pace of change in large complex organizations like WFP, a long-term partnership is more effective than [only] a consultant to bring about change as, apart from providing an objective diagnostic, a partner is usually there to help you implement the solution.” (Samii & Van Wassenhove, 2004, p. 9)

Another factor that enabled the achievement of impact was the deployment of the right resources. Project leaders were working full time on the projects, especially on the TNT side. Implementation could also be guaranteed by agreement from the top management. TNT’s CEO and WFP’s executive director were at the forefront of the partnership, fostering collaboration and commitment. This does not mean that all the targets established at the beginning could be met. Still, the parties responded to resources constraints through the prioritization of projects according to their urgency.

“You also need to have the agreement and commitment from top management. Work on items that are urgent and important ... Include regular (quarterly) meetings directly involving them. Another strategy is to provide regular updates, to address the accountability about the progress and impact made and constantly create commitment.” [M. Hendriks]

5.4.2.4. FINAL SITUATION AND MEASUREMENT OF RESULTS

The evaluation of results was recognized as a vital step to understand which impacts had been reached in terms of logistics performance improvement and beneficiaries’ well-being. Therefore, in 2007, after five years from the beginning of the “Moving the World” initiative, a team was entrusted to measuring the progress made (Gatignon & Van Wassenhove, 2009). It is important to note that this was not the first assessment conducted on the partnership’s results. For example, the “Best Practice Project” is an initiative that was integrated into the project cycle to foster continuous assessment and improvement of activities.

The team started with a financial estimation of costs and benefits that derived from the different initiatives. This task was also facilitated by the fact that, at the beginning of the partnership, WFP and TNT had agreed on a set of indicators for measuring the progress of projects over time (Gatignon & Van Wassenhove, 2009).

“If you ask me how we measured the success and benefits of such projects, it is not that difficult. If you know the initial costs, and what the costs and reliability are today, you can compare them ... For that you need to track data” [M. Hendriks]

This approach allowed to obtain sound quantitative measurements. For example, it was calculated that TNT’s optimization of transportation routes within the School Feeding Support initiative resulted in savings amounting to € 52,500 per year in the pilot country. According to estimates, the project deployment in other countries could have led to € 1.2 million in costs reductions (Gatignon & Van Wassenhove, 2009). Also, the warehouse optimization in Brindisi led to an increase of storage space by 42% and operational savings amounting to € 144,000 over four years (potentially rising to € 29 million, if the best

practices were adopted in other locations too) (Gatignon & Van Wassenhove, 2009). These numbers were then corroborated with a qualitative assessment of the initiatives' perceived benefits.

This partnership manifested some performance measurement challenges that have been mentioned by several thesis interviewees too. Firstly, it was hard to identify to what extent projects' savings were resulting by the "Moving the World" partnership, rather than changes in WFP's environment. Secondly, some WFP's staff saw in performance improvement measurement a risk in terms of donations reduction (Gatignon & Van Wassenhove, 2009). Still, "Moving the World" provides an example of how long-term relationships, in which both parties are actively involved throughout the phases (analysis, implementation, and assessment), can lead to measurable logistics performance improvements.

"If you want to do it right, you need to be dedicated. If you want to achieve and measure an impact, you need to spend time. Either you are serious or you are not." [M. Hendriks]

The partnership's success was marked by the fact that, at the end of the initial five-year agreement, both parties decided to continue their mutual commitment in fighting against hunger for five more years.

5.4.3. HELP LOGISTICS – WVC: SUPPORTING STRATEGIC SOURCING

In 2014, World Vision International (WVI) started an initiative aimed at the establishment of strategic sourcing within its country programmes. Strategic sourcing entails the reduction of unnecessary processes in procurement operations, the improvement of transparency and monitoring, and the standardization of systems.

Cambodia is one of the region's most challenging countries in terms of development needs, as it is still recovering from the civil wars that affected it in the last decades. Infrastructure is underdeveloped and there is often a lack of the required logistics skills to provide humanitarian help. World Vision Cambodia's (WVC) mission is to improve the conditions of children living in underprivileged countries, by focusing on four main aspects: nutrition, education, youth empowerment, and child protection. As procurement processes are critical for the success of humanitarian projects, there was a manifest need to improve this function to facilitate the achievement of targets.

5.4.3.1. INITIAL SITUATION AND RATIONALE FOR CONSULTING

Given the necessity to improve procurement operations at WVC, Ronald Chandra, WVI's Regional Director for Supply Chain Management in East Asia, started to work on the strategic sourcing project with the country office. Activities began in 2014, mainly using best practices from the industry. The target was to standardize processes, products, and contracts, and develop profitable, long-term relationships with suppliers. However, WVC

was facing some difficulties in completing the whole project cycle, due to resources constraints and the lack of the necessary logistics expertise.

“The project went through a certain extent of application, but it did not fulfil its potential. The objective of the consultancy was to understand what we did well, how to move forward and where to go.” [R. Chandra]

Specifically, WVC needed some external help to understand what was the current situation with respect to two main aspects. The first one dealt with internal procurement processes, which needed to be standardized among the various units operating in the country. Cambodian staff may not possess the necessary SCM knowledge to properly engage in procurement activities, highlighting the need for knowledge transfer and capacity strengthening. A consultant was necessary to identify the tools and skills that were lacking at WVC and consequently devise ways to fill these gaps. Inherently to this, there was also a need to optimize the administrative and information systems in place.

“Traditionally we [WVC] operate manually, and documents move slowly from one office to another, with approval required. At best emails can be used, but Internet infrastructure is not always available.” [R. Chandra]

Secondly, WVC was lacking a clear view of the market conditions in the country. To this respect, the organization needed external business intelligence to investigate what the local market could offer, in order to bridge internal processes to suppliers' availability. Such analysis was a necessary precondition for the establishment of contracts with strategic vendors, especially for high-value, high-importance items.

“Before the procurement projects, items were sourced through spot buying ... If we do a good planning and aggregate the spending, then costs efficiencies can be obtained both at the supplier and WVC side.” [R. Chandra]

Given the collaboration that already existed between the two organizations, Ronald decided to contact Temmy Tanubrata, HELP Logistics' Regional Director for Asia, looking for help on how to proceed with the strategic procurement project.

5.4.3.2. CONSULTING INTERVENTION

The consulting intervention involved three parties, namely the national office of WVC, the regional office of WVI, and HELP Logistics. It began with the scoping of the mission, conducted in April 2016, with the objective of defining the project boundaries. A team from HELP Logistics and WVI Regional office was deployed in Cambodia for three weeks, to follow four main tasks: (i) conducting a general market assessment, in relation to the existing vendors; (ii) conducting interviews, both with internal staff that was responsible for procurement operations and representatives from suppliers; (iii) analysing the procurement processes in place at WVC; (iv) assessing the required trainings to strengthen the capacity of the procurement team, within the framework of the consulting project.

The team performed a *spend analysis*, with the objective to identify spending trends within WVC. Items were categorized and an analysis of spending data from the previous two years was conducted. Data showed the type of transactions (LTAs or one-time acquisitions) as well as the volume of purchases (number of invoices) and related value. Based on this quantitative data, the team then engaged in interviews with the staff that was responsible for procurement to understand what internal processes were in place and how they could be improved.

“We noted a fragmented transaction pattern with no long-term agreements and contract issued, but rather based on one-off purchases. The spend analysis allowed us to focus on two main categories, which represent around 70-80% of the value and try to understand what elements drove their costs.” [T. Tanubrata]

Data analysis also helped to identify the optimal set up for procurement thresholds, mapping the processes involved; each of them causes costs to the organization, and it was therefore important to clarify which activities actually added value to the procurement function.

Then, the team performed a market analysis. It looked at selected items and established a base value, comparing it with prices in different locations and identifying what drove those differences. Also, this assessment served as a base to verify which vendors could be eligible for setting-up the contracts that, according to the spend analysis, were required to improve procurement efficiency and effectiveness.

“In Cambodia, the market operates in a less developed way compared to Europe ... When WVC had to perform a construction project, we went out with HELP Logistics for a week to the suppliers. These visits allowed us to bring back some information that we could use to select strategic partners.” [R. Chandra]

HELP Logistics’ team provided support for the implementation of Coupa Procurement, a procurement software that allows managing the processes involved from purchase requisition to payment. The software integrates user (who has all the items information in the system), buyer (who has a tool placing orders in his place), and financial office (that can easily match purchase request, purchase order, and invoicing). To make the system work well, HELP Logistics contributed to the definition of an item catalogue, as well as the establishment of contracts and the identification of optimal prices.

The consultancy led to a number of recommendations, which included the following: (i) the improvement of the efficiency of transactions, mainly through the reduction of the number of cash-based transactions with low financial value; (ii) the integration of product cataloguing for the whole country as a core function; (iii) the establishment of LTAs for priority categories of items and larger suppliers who have nation-wide presence; (iv) the modification of procurement structure within WVC; (v) the definition of an appropriate threshold for each type of transaction.

5.4.3.3. IMPLEMENTATION OF RECOMMENDATIONS

The implementation phase was based on a plan delivered by HELP Logistics at the end of the consultancy project. Each recommendation was complemented by a list of actions to be followed, as well as a main indicator to verify the progress made. The team defined some thresholds to be reached with respect to the various measurements, providing targets for WVC's procurement operations.

“One of our recommendations was to improve procurement efficiency, operationalized as ‘introduce mechanisms to streamline procurement actions within a pilot office’. For this, the proposed KPI was ‘the average value of invoices to be processed for transactions within the pilot office’. We determined from the available data that the current baseline is about 250 US\$, and the target to be achieved is to double that value.” [T. Tanubrata]

The implementation plan could also be used by the partner as a mean to prioritize the actions that needed to be taken. Contrary to other consulting projects carried out by HELP Logistics, in this case the organization provided implementation support to a larger extent. In particular, student interns were deployed at WVC to assist the local staff in the operationalization of recommendation. Involved tasks included the support in: (i) establishing and maintaining procurement contracts with strategic suppliers and (ii) developing a standardized item catalogue. The possibility of having an external resource that could contribute to the project's implementation at WVC was welcomed by the team, which often struggled with the lack of sufficient staff.

“Consulting interventions are generally introduced in the middle of daily operations, and it may be difficult to find the time for that. This is also where trust is built, in the sense that HELP Logistics is willing to deploy an intern ... I think, overall, the model that we have here, with HELP Logistics giving consulting, training, internships results into a package that allows us to grow. You need to build an ecosystem of stakeholders to create trust and collaboration and to help the country progress.” [R. Chandra]

5.4.3.4. FINAL SITUATION AND MEASUREMENT OF RESULTS

The second phase of the project consists of the assessment of the spending pattern improvement and the full implementation of strategic sourcing within WVC. Although this stage is not completed yet, positive changes could be observed, and partly measured, within the procurement function. Procurement transactions were streamlined, thanks to the introduction of Coupa Procurement and the establishment of long-term contracts with suppliers. Efficiency could be seen from procurement time reduction, higher average invoice value, and increased number of invoices per month. This, in turn, allowed economies of scale in procurement. Secondly, staff reduced the necessary time to handle the manual processes of conducting procurement, especially for direct cash transactions.

“When people use the new procurement system, we talk about a lead time from PR to PO of less than 3 days. Manually, the same process takes more than 2 weeks ... Anyone can go into the system and place the order. The system

automatically sees that the contract is in place and sends a PO to the supplier, without the buyer being involved in these operations. A full adoption would mean that we could utilize the system for at least 80% of the procurement activities. This will lead to a strong reduction of manual operations.” [R. Chandra]

As already mentioned, the consulting project involved the definition of deliverables to assess to what extent objectives have been reached. So far, HELP Logistics’ contribution proved to be useful to operationalize the strategic sourcing initiative better and faster. WVC had a lot of challenges within the country, with capacity limitations that led to the need to have training and somebody who accompany the organization throughout the process. Consultants provided validation tools to strengthen the way WVC was moving towards its strategic sourcing objectives, through a market assessment, an advanced spend analysis, and the identification of the next steps to build on.

“HELP Logistics was on our same page, they gave us the support we needed. Success was achieved because there was a match between strategy, provided by WVC, and support, provided by HELP Logistics.” [R. Chandra]

5.4.4. EXAMPLES’ SUMMARY

	Example 1 Panalpina – IHO A	Example 2 TNT – WFP	Example 3 HELP Logistics – WVC
<i>Rationale for consulting</i>	<ul style="list-style-type: none"> Procurement issues Lack of logistics knowledge 	<ul style="list-style-type: none"> Two-ways collaboration (win-win situation) 	<ul style="list-style-type: none"> Support for strategic sourcing project
<i>Initiation and planning</i>	<ul style="list-style-type: none"> Demand pull from IHO Open assignment with basic ToR 	<ul style="list-style-type: none"> Establishment of a long-term <i>partnership</i> Definition of clear initiatives and programmatic approach Deployment of mixed teams for all project phases 	<ul style="list-style-type: none"> Extension of collaboration already in place Joint completion of project charter defining problem, objectives, methodology, resources, timeline
<i>Analysis</i>	<ul style="list-style-type: none"> Consultant’s review of organizational structure and management practices 	<ul style="list-style-type: none"> Tailored to the initiative 	<ul style="list-style-type: none"> Deployment of consulting team for three weeks Market assessment Spend analysis
<i>Design of solutions</i>	<ul style="list-style-type: none"> Restructuring of logistics team and introduction of planning tools Recommendations to improve procurement practices 	<ul style="list-style-type: none"> Tailored to the initiative Participation of multiple stakeholders Buy-in from senior mgmt Implementation-oriented design 	<ul style="list-style-type: none"> Design of best practices to support the deployment of strategic sourcing Recommendations to improve existing procurement set up
<i>Implementation</i>	<ul style="list-style-type: none"> Immediate implementation of quick-wins Consulting mandate concluded with delivery of recommendations and tools 	<ul style="list-style-type: none"> Systematic support of implementation with team Complete roll-out of implementation packages Transfer of implementation know-how to IHO 	<ul style="list-style-type: none"> Consulting mandate concluded with delivery of recommendations/tools Intern deployment for <i>operational</i> implementation support
<i>Deliverables</i>	<ul style="list-style-type: none"> Detailed logistics review supported by costs estimates Planning tools Action plan listing recommendations, owners, and implementation dates 	<ul style="list-style-type: none"> Consultancy reports (varying depending on the initiative) Replicable implementation packages Auditing reports assessing consultancy results 	<ul style="list-style-type: none"> Action plan listing recommendations, owners, and implementation dates Indicators to verify the progress made

<i>Measurement of consultancy results</i>	<ul style="list-style-type: none"> ▪ No systematic measurement of performance changes ▪ Qualitative observation of operational improvement ▪ No auditing with time lag 	<ul style="list-style-type: none"> ▪ Short- and long-term measurement of results ▪ Use of KPIs established before projects ▪ Quantitative estimates of costs and time savings 	<ul style="list-style-type: none"> ▪ On-going phase (second part of the project) ▪ First observations of operational improvement
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Table 6. Summary of presented examples. Source: own elaboration

This section provides an overview of the three examples that have been described (Table 6). Emphasis is put on the consulting process, highlighting the most relevant points for each phase. Although the considered sample is limited, it can be seen that differences exist, especially with respect to the extent of implementation by consultants and the final measurement of results. The examples show that, in some cases, the consulting mandate is limited to the delivery of recommendations, handing over the responsibility for implementation to the IHO. Example 2 is not in line with this trend, with consultants following directly the operationalization of solutions too. As explored in chapter 6, measurement of results might be constrained by some barriers and varies depending on available resources and organizational strategy. A common aspect that emerged is that deliverables include precise action plans that clearly identify process owners, actions, and intervention dates for each recommendation. Consultants provide pragmatic and understandable roadmaps for implementation to facilitate this phase even if they cannot directly supervise it.

5.5. PERFORMANCE MANAGEMENT CHALLENGES

The starting point of this thesis has been the opportunity of logistics improvement within humanitarian organizations. Logistics consulting is a mean that can potentially help solving this problem, by assessing the existing issues and providing solutions that are tailored to the partner's needs. The coding of interviews with consultants and practitioners operating in the humanitarian sector highlighted a number of criticalities related to consulting projects and, in particular, the implementation of recommendations. The purpose of this section is to present the challenges related to the management of IHOs' logistics performance improvement in relation to consulting services.

In the context of this thesis, performance management relates to the processes, resources, and systems that enable an effective impact in terms of logistics performance improvement. The coding resulted into four main categories of challenges that may hamper the achievement of this objective: poor problem definition and articulation, lack of commitment, cultural divergence, and resources constraints. The challenges and their root causes are summarized in Figure 12 and Table 7. The table indicates the number of references per challenge emerged from interviews, divided between logistics consultants (LC) and humanitarian managers (HM). The count for each of the four main categories sums the frequency they were cited in general terms and the frequency of their root causes.

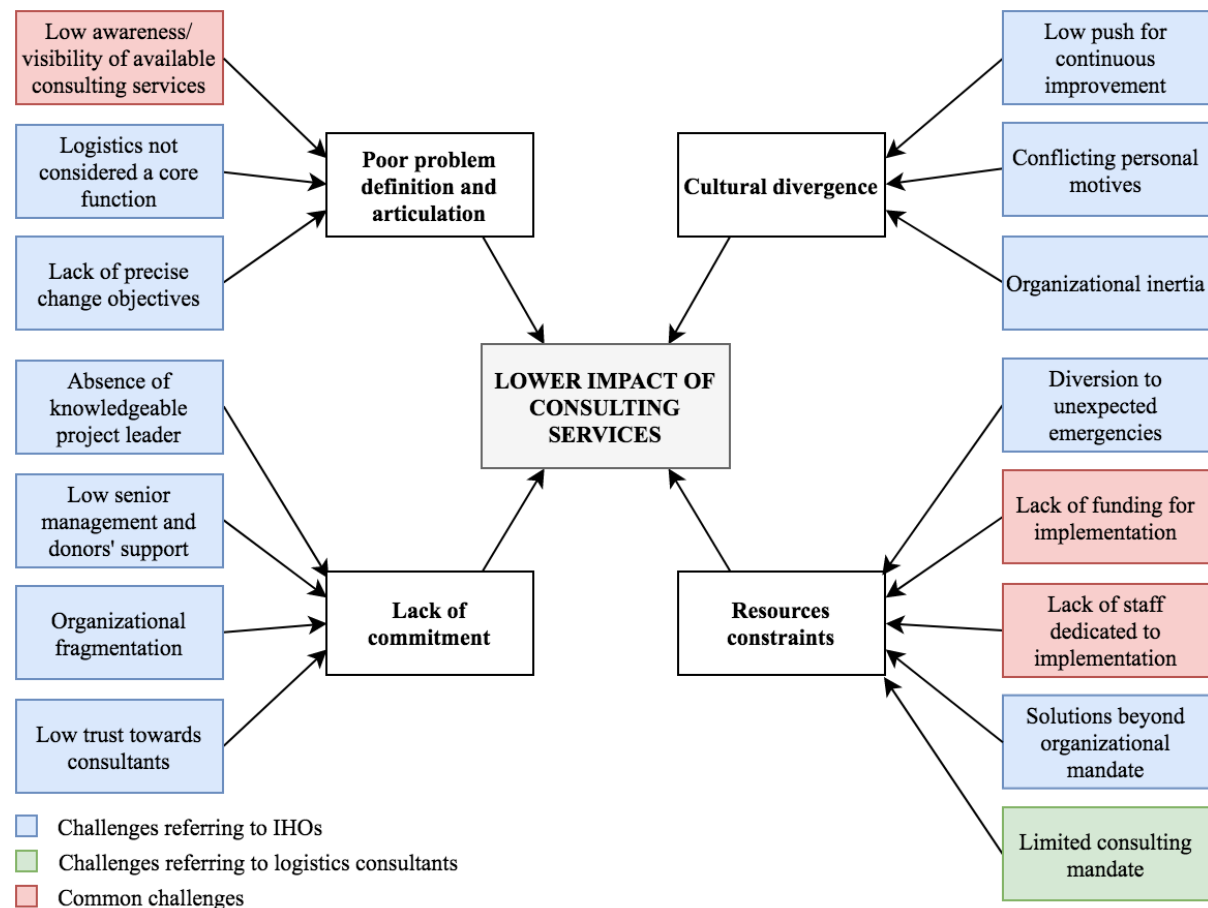


Figure 12. Performance management challenges. Source: own elaboration

	LC (n=8)	HM (n=4)	Total
Poor problem definition and articulation	11	9	20
Low awareness/visibility of available consulting services	3	1	4
Logistics not considered a core function	3	5	8
Lack of precise change objectives	3	2	5
Lack of commitment	16	3	19
Absence of knowledgeable project leader	3	0	3
Low senior management and donors' support	3	1	4
Organizational fragmentation	4	0	4
Low trust towards consultants	2	2	4
Cultural divergence	16	2	18
Low push for continuous improvement	6	1	7
Conflicting personal motives	2	0	2
Organizational inertia	6	0	6
Resources constraints	37	8	45
Diversion to unexpected emergencies	5	1	6
Lack of funding for implementation	9	2	11
Lack of staff dedicated to implementation	13	2	15
Solutions beyond organizational mandate	0	3	3
Limited consulting mandate	6	0	6

Table 7. Categorization of performance management challenges. Source: own elaboration

5.5.1. POOR PROBLEM DEFINITION AND ARTICULATION

The first challenge for performance management can arise during the initiation phase of consulting projects, as IHOs have difficulties in articulating the logistics problems they are facing and therefore do not have a specific focus on what needs to be improved. Various consultants mentioned that, at the beginning of interventions, there can be a lack of clarity about what the change objective is.

“Humanitarian organizations often don’t know what they don’t know. We have to get a foot in the door and show them what can be improved” [LC2]

The uncertainty over the problem definition is not due to the absence of logistics challenges, which are widely acknowledged by practitioners of humanitarian organizations. However, managers belonging to humanitarian organizations are sometimes not fully aware of the service portfolio that consulting organizations offer, and therefore cannot estimate properly which problems could be solved through their interventions. For example, when TNT was looking for a suitable partner to include in its CSR programme, responsible managers realized that IHOs may be unsure about what consultants can offer. This problem is also related to the fact that some consulting organizations have not developed yet a clear and consistent service portfolio or they are not putting sufficient efforts in supporting its visibility.

“...the motivations behind corporate interest in humanitarian affairs were not obvious or easily understood. In addition, not all of the short-listed organizations were familiar with TPG [in 2005, the company name evolved into “TNT”] and its range of activities.” (Tomasini & Van Wassenhove, 2004)

Also, due to the tendency not to consider logistics as a core function, staff often focuses on daily issues without having the time to assess systemic needs to improve the current situation. Many IHOs lack the performance improvement mindset and logistics experts that characterize the commercial sector; thus, they are not used to manage logistic performance in a systematic way that entails improvement goals.

“The major internal challenge is in terms of management, in terms of putting logistics at the right place of the organization, both at the strategic and operational levels. Often, the logistics team is perceived as a group of “fire-fighters” and not properly integrated, at the right time and at the right position.” [HM4]

Interviewees registered a lack of a precise focus about what could be improved within humanitarian organizations. This fact, which is linked to the low supply chain expertise among the staff, leads to the fact that consultants have to take a proactive role in understanding what the issues are and which areas show larger potential for logistics improvements.

5.5.2. LACK OF COMMITMENT

Consultants who offer pro-bono services highlighted how low commitment from partners can be an issue towards the creation of impact. In the long-term, this can translate in low motivation by the humanitarian staff and thus a limited ability to achieve performance improvement.

“There is obviously a desire to work with us and a desire to have results, but translating that into a commitment, a timeline, and actual results is challenging”
[LC2]

According to interviewees, low commitment can result from various factors. Firstly, it happens that humanitarian organizations do not provide a knowledgeable project champion, who can work full time on the project and drive changes within its organization. A second problem lies in the low support from the senior management of IHOs. If decision makers are not on board to make the necessary changes and deploy the required resources, the humanitarian staff is not able to implement the consulting recommendations. Similarly, IHOs’ donors need to understand the value of logistics improvement, providing the funding that organizations require.

“We may have already collaborated to optimize a specific area and then the partner later finds out the donors no longer want to fund that, as they shift their attention to other programmatic areas.” [LC4]

Thirdly, lack of drive may derive by organizational fragmentation between different local and country offices that pursue unaligned goals. In this case, a successful implementation depends on the national or regional management interest to reach the project objectives. Consultants explained that the dynamics between these offices are beyond their control and that it can sometimes hamper the timely progress of projects.

Fourthly, some IHOs’ members do not fully trust the ability of logistics consultants to understand and solve issues in the humanitarian sector at the beginning of joint collaborations. They may perceive that consultants’ deployment for a limited amount of time is not sufficient for them to capture the existing situation and consequently propose feasible solutions. Low trust can therefore translate into a lack of commitment to the success of logistics improvement projects.

5.5.3. CULTURAL DIVERGENCE

Consultants often cited cultural divergence as a factor that creates a divide between logistics consultants and IHOs. While the commercial sector is characterized by a thrive for performance improvement to maximize profits (Daugherty, Ellinger, & Gustin, 1996), logistics optimization is not perceived as a priority by many humanitarian organizations.

“There is a possible cultural divergence between the consultants and the recipients [IHOs]. IHOs members are not commercially driven people, therefore

there is the need to be flexible and creative in managing the impact of the consulting services.” [LC1]

To facilitate and optimize change, consultants should find a culture of continuous improvement at the client NGOs, but that rarely exists. Implementation would also benefit from this approach, as consultants often cannot assist IHOs for the operationalization of recommendations.

Low attention for logistics improvement is associated with different factors. At the individual level, interviewees noted that practitioners often work in this sector for reasons that go beyond profits, wanting to contribute positively to the well-being of disadvantaged communities. As noted by Kaplan (2001), humanitarian workers may be driven by personal and sometimes conflicting visions to achieve their goals, hampering strategic alignment and change adoption (Walton, Mays, & Haselkorn, 2016). The prioritization of humanitarian relief generates blindness about the value of change towards logistics improvement. Also, as presented in the Panalpina – IHO A example, staff may perceive external consulting as an intrusion of their area of responsibility, and therefore resist changes. In other words, humanitarian staff may not recognize the potential improvements deriving from these interventions.

“The acceptance of a consultant met some resistance in the internal team in the sense that the local manager perceived that those tasks were his responsibility, and therefore he felt that somebody was coming to play in his yard. He was in a state of denial and was not happy to hear that someone was coming to sort out problems and work on logistics.” [HM1]

On a wider scale, many IHOs are large, established organizations, characterized by organizational inertia (Walton et al., 2016). Interview findings show that consultants acknowledge the complexity of modifying existing practices and processes, because they are deeply rooted in the current systems. One of the consultants noted that inefficient systems might become consolidated due to poor management, donor criticism, or internal frauds. Therefore, it may be necessary to question existing regulations and systems, when possible and appropriate. Finally, IHOs may resist change due to the risk that cost optimization will lead to lower contributions by donors and, in the event that the improvement takes place, they may still be reluctant to measure it for the same reason.

“Unlike the commercial sector, which is profit-driven, it may be the case that humanitarian organizations actually do not want to decrease their spending, because this may result in lower funding for the following year. Basically, our mandate is sometimes not aligned with the organizational priorities of humanitarian organizations.” [LC6]

5.5.4. RESOURCES CONSTRAINTS

Implementation of recommendations is a necessary condition for logistics improvement through consulting. However, involved parties have constraints on the available resources, which limit their ability to carry out implementation to the desired extent.

IHOs practitioners and consultants mentioned the lack of funding as a barrier to the implementation of delivered solutions. While some solutions can be operationalized immediately as quick wins, structural changes such as the update of the information system or the construction of a new warehouse generally require approval by senior management and funding by donors. As consulting organizations like HELP Logistics do not provide financial resources or physical assets to their partners, the operationalization of these solutions generally cannot be guaranteed. In addition, humanitarian workers are usually overwhelmed with the current needs of the organization, and may not have time to devote to process improvement projects.

As already mentioned, IHOs suffer from a lack of trained staff and a high turnover. When a new disaster hits the area where these organizations operate, available resources are usually diverted to the emergency response. Implementation of consulting solutions is not a priority anymore and by the time the situation returns stable it may be the case that needs and staff have changed.

“When an emergency is happening, people forget everything else and jump on the current needs ... They are very busy in running around with their daily work, they do not have time to follow the implementation of solutions, as they have to prioritize activities.” [LC1]

It may also happen that proposed actions are not within IHOs' scope of actions, as they require the involvement of other stakeholders such as governmental bodies. This challenge is exemplified by the collaboration between HELP Logistics and the NGO in Myanmar, in which humanitarians did not have the authority to increase the medical kits' distribution frequency, due to the existing regulations.

“One of the recommendations was to have monthly medical supplies delivered to the volunteers in order to improve responsiveness and reduce inventory levels, while currently this is done quarterly. HELP Logistics' solution seems reasonable, but the calendar for distribution is decided by the Myanmar government.” [HM2]

On the other hand, consultants also suffer from the lack of power in influencing the operations of humanitarian organizations. Their mandate is generally limited to the role of advisers, not change managers. This can limit their ability to act on processes and systems within the IHOs, leaving implementation choices to the partner. Consulting organizations also suffer internal constraints in terms of staff and funding. In particular, the smaller ones only dispose of a limited number of employees, who often need to follow multiple projects

simultaneously. Interviewees acknowledged this limitation and defined the choice of providing the implementation of solutions as a strategic decision that entails a higher commitment of resources, the development of specific skills and a longer deployment of the staff within the partner IHO.

“In order to support implementation, we need more staff capacity because these organizations [IHOs] often do not have the people to do the work. ... The first constraint is given by our human resources ... The second constraint is the lack of funding for external consultants to do the implementation on behalf of us”
[LC2]

5.6. BEST PRACTICES FOR EFFECTIVE IMPACT

This section has the purpose to present the best practices that can be adopted by logistics consultants to facilitate the effective management of their performance – i.e. the improvement of IHOs’ logistics performance. The first three categories, namely scope management, characteristics of deliverables, and implementation support, refer to best practices that should be adopted at the project level. In particular, they refer to the phases of planning (definition of projects boundaries and area of intervention), design (development of improvement recommendations and action plan), and implementation (operationalization of solutions). The last two categories of best practices – knowledge management and partners management – facilitate an effective impact of consulting services on a wider, more strategic level. They are interlinked, in the sense that the generation of knowledge depends on the ability to engage in relationships with key stakeholders. On the other hand, the creation of partnerships benefits from knowledge sharing and mutual learning. Findings on best practices for effective impact are summarized in Figure 13.

5.6.1. SCOPE MANAGEMENT

Interviews highlighted that scope management has a prominent role in the definition of consulting services, in order to make them implementable by the partner organization. The project scope is usually defined by terms of reference and a project charter that is drafted before the beginning of activities, during the planning phase. The definition of a project charter is a useful way to engage the partner from the earliest stages of consulting projects. It requires reflecting on the existing problems, the methodology to solve them, and the possible outcomes of interventions. Also, having it signed by senior management members can facilitate commitment and the deployment of resources. When outlining the project scope, a common approach that emerged is narrowing down the boundaries of interventions. In other words, consultants strive for changes in specific points of the organization, rather than aiming to large-scale variations. This facilitates the definition of tangible and pragmatic milestones.

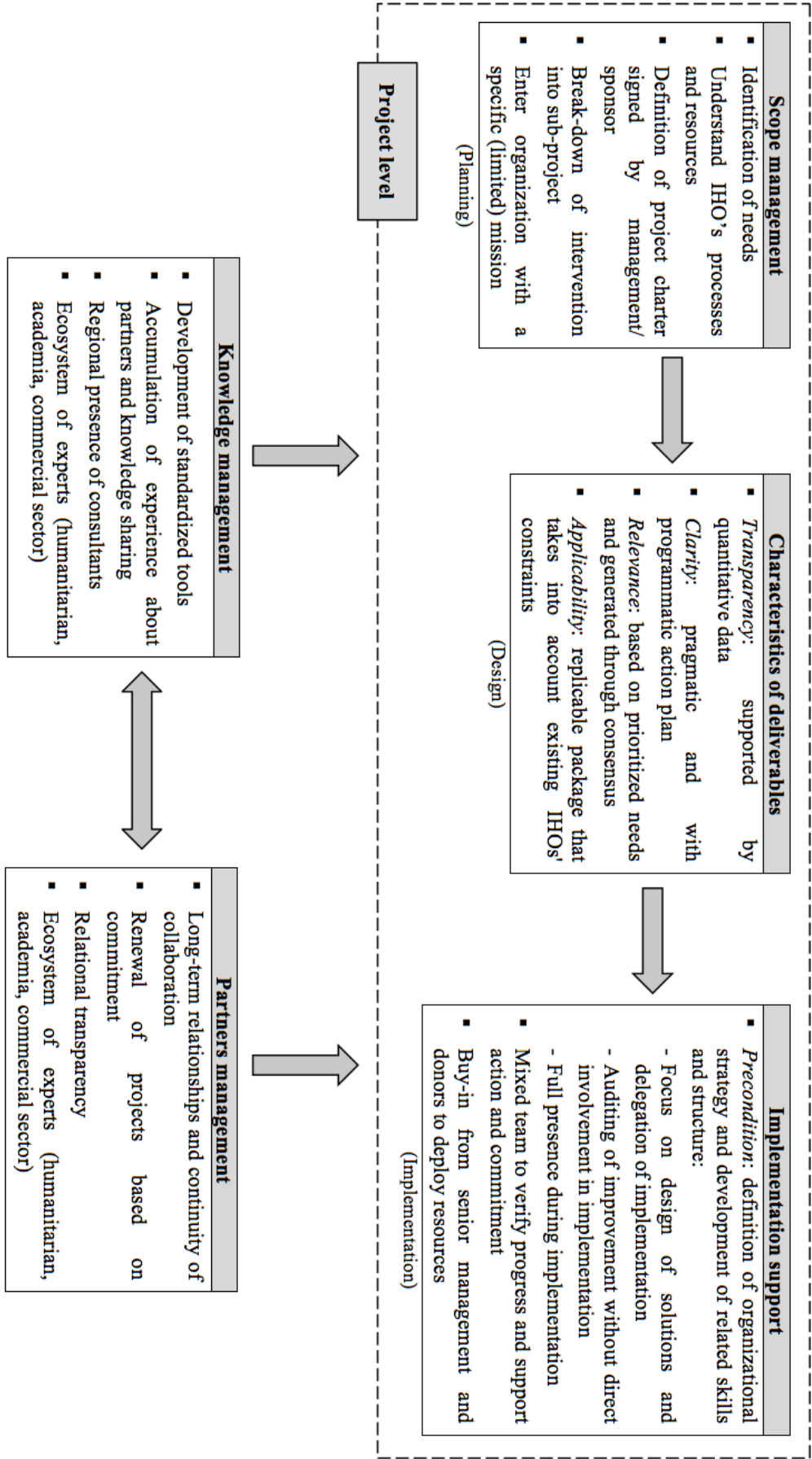


Figure 13. Best practices for effective impact of consulting services. Source: own elaboration

“The main failure of the humanitarian sector is trying to do too much and then fail to meet the established objectives. It is better to achieve one thing and focus on actually doing that and completing it ... You can do so much if you have actionable narrowness in a project.” [LC2]

As explained in the previous section, when consultants engage with new organizations there might be low commitment and lack of a precise focus. Therefore, they prefer to “under-promise and over-deliver, especially with new partners”. By breaking down projects into smaller units, organizations are given the necessary time to build mutual trust and organizational alignment before committing a larger amount of resources. It is often the case that services and tools are initially deployed only within a specific country or province and, if successful, then extended to other units. Also, this strategy allows more flexibility and agility to respond to the changing needs of the commissioning organization.

“We come in on a very specific mission schedule for each project ... Since the will to improve is not always there, I prefer that we act like a laser and focus on a few key points rather than ask them to re-invent themselves and optimize everything. HELP AG pulls out a project with a very definite (and limited) target. Then, if the country office of the partner organization requires additional service, that may count as a new project depending on the new objectives.” [LC4]

Consultants should understand which systems and procedures characterize the partner humanitarian organization and consequently develop interventions that fit those structures. Inherently to this, it may be useful to consider budgets and resources at the partner organization for implementing recommendations and act within those boundaries. Several IHOs still struggle with the allocation of money for logistics-specific projects and organizational development. Although consulting results can be used as powerful advocacy tools for the deployment of more resources, it is important to recognize to what extent the partner can operationalize an implementation plan. On the other hand, it is important for consultants to be aware of their limited ability to mandate actions over big, established humanitarian organizations. In order to tackle this issue and be more effective, strategies such as proving the value of results and the establishment of long-term relationships can be adopted; these aspects will be explored later in larger detail.

“We operate within the constraints of our partner’s ability to transform themselves ... So we start at a very basic level. Instead of trying to make the dashboard show the whole supply chain performance, we would go for a more conservative or minimalistic approach ... This acknowledges both their limitations and our own. It is unrealistic to expect the UN or WHO to change purely on the basis of our intervention.” [LC4]

Finally, both consultants and humanitarian staff highlighted the importance of identifying the existing needs before the beginning of the project, in order to define its scope. This is essential for an efficient and effective use of the available resources. Logistics needs may be already known to IHOs based on their experience or emerge during the assessment phase of the consultancy. Also, previous auditing interventions can provide a

basis for the identification of potential improvement areas. Consultants should pay attention to this aspect, trying to understand the particular requirements of the partner organization and the local environment in which it operates. Although such process may not be straightforward, especially for professionals coming from the private sector, efforts for needs identification create the basis for the successful completion of the following project steps.

“Before the beginning of the project, there has been a lot of discussion and preparation. The consulting team visited our offices before making their final decision, to identify the needs and plan what kind of consultancy was needed. I think this is a key requirement ... Once that is identified, the rest is quite straightforward” [HM2]

Figure 14 shows the relative costs to fix a defect at different project phases in the IT industry. Drawing a parallel to the humanitarian sector, it can be observed that costs are minimized when problems are identified during the predesign (planning) phase of the project. On the other hand, when criticalities emerge in the last project stage – i.e. implementation of solutions – the costs for correcting errors rise exponentially. Figure 15 highlights the importance of a careful assessment of needs. Although there is no “right” time to be spent for the planning phase, data show that the more time is spent as a percentage in requirements’ identification, the lower is the percentage of projects’ cost overrun.

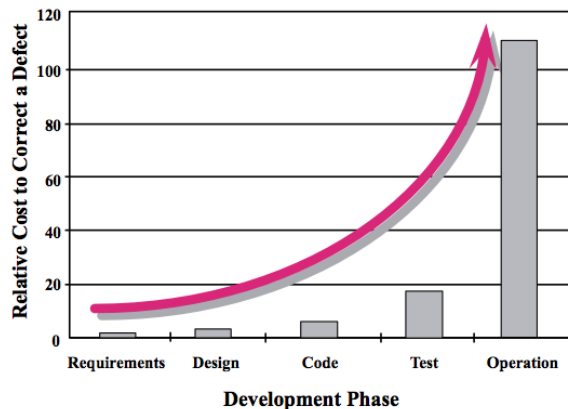


Figure 14. Relative cost to fix a problem.
Source: Grady (1999)

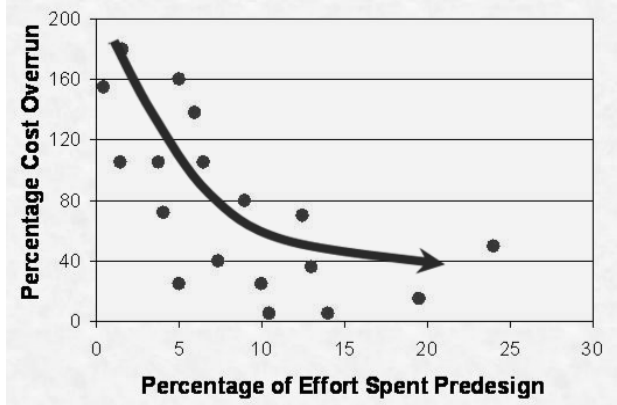


Figure 15. Cost overrun vs. Effort spent in predesign. Source: Hooks & Farry (2001)

Needs identification is sometimes hampered by the fact that the deployment of consultants is limited to a few weeks only. The countries where projects take place may be characterized by bad transportation infrastructures, thus limiting the time that can be actually spent to retrieve useful information. More resources could be put in this phase of projects, bearing in mind other existing issues such as potential language barriers and the absence of logistics knowledge in the field.

“We knew that travelling among various locations requires a lot of time. Even if consultants spent 3 weeks here, half of the time was spent on the road. We

knew it, so we asked whether they could stay 6 weeks here to make a deeper assessment and speak to more stakeholders. However, this was not possible.”
[HM2]

5.6.2. CHARACTERISTICS OF DELIVERABLES

Interviewees mentioned characteristics of the consultancy deliverables that are desirable in order to facilitate the implementation of results. Attributes that were often cited include transparency, clarity, relevance and applicability.

Transparency refers to the fact that the report should include all the assumptions that have been taken in order to arrive at results. Also, figures about costs and benefits that can be achieved through the proposed recommendations should be made explicit where possible. As shown in the Panalpina-IHO A case, implementation of solutions is facilitated when they are supported by quantitative data. A transparent implementation plan can be used as an advocacy tool to secure the required funding. Interviewed humanitarian managers also mentioned this advantage, claiming that having a clear assessment and a roadmap towards results could facilitate the deployment of resources.

“To solve this problem [lack of funding], based on their recommendations that we received, when we proposed a new funding proposal, we included the required items (warehouse equipment), in order to get the approval from donors and then implement the solutions.” [HM3]

Concerning clarity, the implementation plan should not be too abstract or long, but rather have a pragmatic approach that can be easily understood by the recipient and that allows delegation of tasks. To this respect, it is important to remember that the IHOs' staff may not have a deep knowledge of supply chain management. Also, recommendations should be complemented by an action plan that points out the main elements related to them. Several of the analysed reports included a road map for implementation that featured a combination of the following key points: (i) a set of objectives and the activities that are necessary to achieve them; (ii) the expected resources needed and the associated costs; (iii) designated roles (process owners) to guarantee accountability during implementation; (iv) a tentative timeline for implementing the plan; (v) key benefits that are expected to result from the concretization of the plan. This scheme exemplifies how performance measurement is an embedded component of performance management.

Recommendations also need to be relevant for the commissioning organization. Although this characteristic may sound trivial, a poor assessment of logistics needs and the lack of communication between involved parties may lead to results that are not important within the existing system. According to interviewees, relevance and consensus can be fostered through the solicitation of feedback and comments by involved stakeholders throughout the consulting intervention. Also, consultants can try to identify the logistics areas where there are higher urgency and potential for improvement, leading to solutions that should be prioritized by the IHO.

Most importantly, consulting recommendations should be applicable by the IHO. As already mentioned, this entails a series of considerations such as available resources, timeline, and commitment. By acknowledging both internal and external limitations, consultants can devise recommendations that are manageable and implementable by IHOs. In general, consultants should strive for the delivery of solutions and processes that IHOs can assimilate and roll out again in similar situations.

“You need to create with them a package that is fully understandable, that is step-to-step built up, and can be replicated. This leads to a train-the-trainer approach to make it sustainable and available in many countries.” [LC7]

5.6.3. IMPLEMENTATION SUPPORT

Consulting organizations operating in the humanitarian sector need to clarify their strategic scope in the provision of services. A dilemma that often emerged during interviews is whether or not consultants should actively assist IHOs during the implementation phase of the projects. Doing so would entail investments in people and assets (for example consultants that are fully dedicated to this phase and can be deployed for long times), with a certain risk associated with the outcomes. On the other hand, consultants may decide to focus their core business on the delivery of services, with no or limited involvement in the operationalization of solutions. An important premise of this decision is the fact that, although there is no correct decision in absolute terms, each direction entails the development of different skills and organizational structures and thus different types of investments. Donors and stakeholders at large have to understand that, depending on this choice, they should expect certain deliverables from consulting activities. For example, Johnson et al. (2013) noted that humanitarian training should focus on competencies that fit the mission of people involved. Similarly, consulting organization cannot specialize around 360 degrees, especially in the light of financial and staff constraints.

The TNT-WFP case shows that some consultants advocate the fact that only providing advice is a strategy that cannot lead to sustainable changes, due to internal IHOs challenges. In the “Moving the World” partnership, success was attributed to the fact that teams working on logistics projects were composed by a person from TNT, one from WFP, and one from the staff fully dedicated to the partnership and that the group followed every project phase, from initiation to full implementation. The mutual commitment in terms of staff deployment was considered a key requirement to guarantee joint decisions and agreement on how to optimize logistics processes. In fact, the presence of representatives from both organizations was a way to ensure the applicability of solutions while these were designed, rather than doing so after the delivery of an action plan. The continuous presence of consultants also facilitated the performance measurement of their interventions, as objectives were agreed before the beginning of the project and then assessed during the implementation of solutions.

However, consultants belonging to smaller organizations acknowledged their internal limitations, leading to the conclusion that they do not have the resources to provide expert consultants for the operationalization of solutions. As already mentioned, HELP Logistics was able to guarantee supervision and through the deployment of student interns who supported processes, mainly at the operational level, while “it is more difficult for them to do change management on the strategic level”. Another way to turn around the lack of resources is to return to the humanitarian organization after a few months, to check the improvements that have occurred, preferably along metrics that have been defined beforehand. This post-intervention auditing provides an occasion to suggest corrective measures in case certain solutions proved not to be feasible and to steer operations based on the evolution of needs. At the same time, consultants could obtain useful feedback about the effectiveness of their interventions and the way they were able to influence logistics processes.

“Going back after six months would be good, even for the sole purpose of showing to the IHO that there are commitment and continuity. In the commercial world, this is done and it is a way to create impact ... Returning to the partner would provide some useful feedback.” [LC8]

On the other hand, an interviewee stated that in the event the humanitarian organization does not have the budget to implement the solutions, it does not make sense for consultants to go back and check what has been done. In other words, the deployment of a sufficient budget is a priority issue to obtain an impact in terms of logistics performance improvement. Since most of these consulting organizations do not provide funding directly, commitment and approval from top management layers become vital. In the “Moving the World” partnership, the senior management of both organizations was involved since the beginning of the initiative, while the HELP Logistics-WVC project saw the inclusion of WVI members into the dedicated team. If a direct inclusion is not feasible, another strategy is to provide regular updates to senior levels and donors, in order to show the course of actions and give a rationale for funding.

“Another requirement was to have management authority to support the implementation and to deploy the required financial resources ... You need to get the buy-in from the senior management, so they show commitment and support, then make the changes accordingly” [LC1]

5.6.4. KNOWLEDGE MANAGEMENT

Knowledge management emerged as a key issue in the creation of impact through consulting services, as these organizations’ core offering consists of the delivery of logistics expertise through tools, training, and optimization interventions. According to interviewees, this intangible asset should be transferred in a consistent way over time and across different organizations. Consistency can be obtained through the definition of standardized tools that compose the organization’s service portfolio. The advantages of this strategy are

twofold. On the one hand, consultants have a clear overview of what they can provide to partners to solve identified logistics problems. Therefore, they can devise projects through the modular combination of tools and training that best fits the situation. On the other hand, this approach improves the client's visibility over the benefits that can be extracted from working with these consulting organizations and on how to foster a win-win situation.

Organizational knowledge is also deeply intertwined with the retainment of staff within the consulting organization and the acquisition of empirical experience. According to interviewees, the skills gained through previous consulting projects allow to engage the partner better and obtain the desired project outcomes faster. This includes the experience in managing and conducting consulting interventions as an individual, thanks to similar previous projects.

"The ability of communicating key findings to new potential partners and to know how to anticipate possible concerns are important factors to facilitate a more effective follow-up implementation of the project." [LC8]

Humanitarian managers mentioned the importance of accumulating knowledge about organizational needs and logistics processes. This factor, which is linked to the development of long-term relationships between parties, underlines the fact that one-time consulting projects may lead to resources dispersions. In fact, new consultants need to begin from scratch the learning process about the existing organizational context. Instead, having the same consultant following a certain organization over time can be a way to leverage previous experiences and build more easily on projects that have been completed. Alternatively, consulting organizations can increase their efforts on internal knowledge sharing and facilitate a professional transition of expertise among staff. This approach also facilitates the planning of logistics improvement in a programmatic and continuous way.

"Generally, external people come into the organization, they write the report and then they are out. As an organization, this means that every time you lose information and knowledge. The next time you may bring another guy doing the consultancy and he may have another idea and may not know what has been done before. An added value would be to have consistency in providing consulting services. This could trigger more structural suggestions, because the consultant could develop a deeper understanding of the IHO." [HM1]

Finally, effective knowledge management is helped by the regional presence of consultants in the areas where IHOs operate. One of the trends of the humanitarian sector is to build capacity within developing communities (Ki-moon, 2016). Setting up local operations allows consultants to gain direct experience about the reality of the IHOs they engage with, while responding to their logistics needs. This is also important because regions vary in terms of type of disaster, available infrastructures, presence of humanitarian partners, etc. For example, compared to Asia, the Middle East does not have a strong experience in the humanitarian sector, and organizations struggle to catch up with the

widespread emergencies that developed after the Arab Spring. These crises are usually man-made, while South East Asia is characterized by a long history of natural disasters, which led to a higher development of response and preparedness systems.

5.6.5. PARTNERS MANAGEMENT

Both consultants and humanitarian managers mentioned on several occasion the benefits deriving from long-term relationships and the creation of networks among various parties who can contribute to the improvement of humanitarian logistics.

Long-term relationships allow, as already mentioned, the accumulation of knowledge about local conditions and needs, as well which projects have already been deployed and what programmatic strategy has been devised. Also, continuous interaction emerged as an important precondition for building “trust, transparency, and openness”. It is often the case that IHOs are initially reluctant to disclose information with consultants or dedicate the necessary time. To tackle this problem, consultants can begin with the delivery of less invasive services, such as training or introduction sessions about their activities. These first steps can show the potential of pro-bono consulting, foster team building, and create mutual understanding about objectives and organizational culture.

“At the beginning of our engagement with HELP Logistics, it may have been difficult to share immediately data. But since this consulting arrived after two successful trainings, there was trust from both parties and a good relationship. We knew that HELP Logistics’ intent was to help us improve our logistics performance and I had no problem in sharing the necessary information.” [HM2]

Interviewees stated that engaging in long-term relationships leads to a higher acceptance of consulting recommendations within IHOs. To this respect, it was also noted that consultants could increase their authority in the humanitarian space by bringing together different parties who can share experience and knowledge from a relevant background. In other words, consulting organizations could act as a networking body that is able to reach out not only humanitarian organizations, but also members of academia and the private sector.

“WVC would not quickly accept and believe what is presented. How can this be improved? ... Trust was built through collaboration among various parties. HELP Logistics also became an institution for organizations like WVC, who recognized in it a source for learning and developing capabilities; in these sessions, staff asked questions to experts and cross-checked experiences with people from other organizations.” [HM3]

This approach generates an ecosystem of actors who contribute with their expertise to the solution of logistics problems. IHOs can provide to researchers the data they need to investigate issues in the humanitarian space; in turn, results can be employed as advocacy tools to support activities and interventions. For example, Action Contre la Faim (ACF), has been collaborating with HELP Logistics and the Kuehne Logistics University (KLU) on a

research to validate the fact that 60-80% of IHO's budget is used for logistics. Similarly, commercial experts can provide insights deriving from the way logistics process are run in their business. As shown in the TNT-WFP example, companies can benefit in terms of capacity building in emerging markets and reputation. These interactions provide the resources needed by IHOs to carry out projects that could not be completed independently, due to internal constraints.

“What is very interesting with HELP Logistics is that it is filling one of the gaps existing in the humanitarian sector, bringing in external expertise from academia or private sector and linking this knowledge to humanitarian logistics problems. This allows to put more resources into working on issues and to provide useful recommendations during a dedicated time. Generally, humanitarian organizations do not have time to look at logistics problems in such detailed way.” [HM4]

6. CONCEPTUAL FRAMEWORK FOR LOGISTICS CONSULTING

The objective of this chapter is to present and validate a conceptual framework for logistics consulting in the humanitarian sector, answering to RQ5 and RQ6. Besides the findings of the previous chapter, the design considers the definition of performance and required decision support that interviewees provided. Also, the discussion looks into the concept of value creation and the reasons why humanitarian organizations value consulting services. The framework is complemented with a set of KPIs that can respond to the current needs of logistics consultants. Finally, the last section is dedicated to the validation of outputs via the opinion of experts.

6.1. DEFINITION OF PERFORMANCE

Interviews have investigated the definition that logistics consultants and humanitarian managers give to the term performance, in relation to logistics consulting interventions.

Most of the interviewees agreed on the fact that a satisfactory performance in these consulting services is given by the achievement of the objectives defined in the pre-intervention agreements. The perception of success in these services is largely activity-based and responds to the logic of delivering projects' outputs on time and on budget.

"We measure the staff's performance based on the activities they have to perform. For example, this includes timeliness of the deliverables and milestones within projects that have been agreed with the client." [LC5]

Linking this finding to the performance definition presented in the literature review section, it can be argued that, from the interviewees' perspective, performance currently relates to the concept of efficiency. Consulting organizations acknowledge the constraints that they need to take into account in delivering their services, and thus try to maximise the output with the given means. Another interesting aspect is that both consultants and humanitarian managers cited this activity-based approach, referring for example to signed project charters as a reference for assessing to what extent the project's results were satisfactory. As shown in Table 8, all interviewees except for one consultant and one humanitarian manager addressed activities as an important element of performance.

Activities are tracked through indicators such as timeliness of project phases or the number of delivered solutions.

Interviewees also included the concept of impact on IHOs' logistics processes as an important component of performance. However, both consultants and humanitarians noted that measuring this dimension is more difficult, due to the challenges previously presented. Within the group of people who acknowledged the relevance of impact, only one consultant and one humanitarian manager declared to have conducted a precise evaluation of consulting outcomes, while the others saw this as an ideal goal that could not be operationalized. When a direct presence of consultants during the implementation phase took place, such as in the TNT-WFP partnership, it was possible to have larger visibility on data and results, and thus go one step further with the evaluation of the delivered services. In this context, performance also included the dimension of effectiveness, intended as the sustainable changes that occurred as a consequence of the intervention. One of the interviewed humanitarian managers mentioned that, although his organization has internal KPIs for the measurement of logistics performance, it is difficult to determine the effect of consulting services on the evolution of these metrics.

Interestingly, three logistics consultants mentioned the business development of their organizations as a distinct dimension that is relevant for their performance. This aspect does not focus on specific projects, but rather provides an overview of how well these consultants are able to capture the growing needs of the humanitarian market and consequently respond to them. All in all, it appears that consulting performance is defined along the concepts of efficiency and effectiveness, similarly to what was proposed in this thesis, with the addition of business development. While capturing efficiency is relatively easier – with most organization assessing performance through activity-based indicators, the definition and measurement of effectiveness in more precise terms represents a challenge. As stated by Dr. Andrew Parris, a Lean Manager from Medair, during a workshop held in Zurich:

"It is easy to measure outputs, but much more difficult to measure impact." (A. Parris, personal communication, June 13, 2017)

	LC (n=8)	HM (n=4)
No measurement system in place	1	1
Activity (output)	7	3
Improvements within IHOs (impact)		
<i>cited as relevant</i>	5	3
<i>measured</i>	1	1
Business development	3	0

Table 8. Definition of performance. Source: own elaboration

6.2. VALUE OF CONSULTING SERVICES

Many logistics consulting organizations operating in the humanitarian sector struggle with the development of their activities due to the fact they are nascent businesses, which still need to demonstrate the benefits that they can provide to the humanitarian sector. The fact that services are provided pro-bono is not sufficient for IHOs to let consultants in and devote resources to projects related to logistics improvement. Services are generally delivered through a combination of push strategies from consultants and demand pull from partners who see the potential benefits that could be achieved. However, without the recognition from humanitarians of the value of these interventions, it is hard to create the basis for performance improvement. Indeed, consultants operating in this sector acknowledged that the generation of impact on their partners' logistics processes needs to go through the validation of the offered value.

“Just because a corporation is willing to offer its services to us for free, we should not feel obliged to accept” (Samii & Van Wassenhove, 2004, p. 3)

Definition and measurement of value in the humanitarian sector are also important to guarantee the inflow of funding from donors. Companies operating in the private sector can apply the notion of market capitalization to determine the value created through their products and services and communicate it to investors and shareholders (Singh & Anand, 2013). As market capitalization is determined by a company's shares price and the number of its outstanding stocks, this concept cannot be adapted for nonprofit organizations operating in the humanitarian sector. Similarly, considered consultants cannot attribute a value to their interventions through the pricing of services, as their business model is based on pro-bono collaborations. It can be argued that, given the resources constraints existing within IHO, whenever these organizations deploy staff to follow consulting interventions, they see a value in it. This also relates to the fact that most donors are not willing to finance overhead costs such as process improvement projects, as they would rather invest in the operations occurring in the field. For instance, empirical data show that every dollar spent for emergency preparedness saves around seven for responding to disasters (Guerrero-Garcia et al., 2016). Nevertheless, the funding for these activities is limited.

“For us it is luxury expenses to go for joint research and have time for consulting recommendations. Currently, most of our money goes for delivery of relief items and it is a low portion of the budget that is devoted to organizational development and so on. Especially for logistics, it is difficult to get budget for that.” [HM4]

Logistics consultants need to find innovative ways to show what they can offer to IHOs. For example, to demonstrate the value of services, consultants usually show performance improvements obtained through similar projects within other organizations. The conceptual map presented in the following section can support this intent.

6.3. INTRODUCING THE CONCEPTUAL FRAMEWORK FOR IMPACT CREATION

This section presents a conceptual framework developed for logistics consulting services in the humanitarian sector. This framework builds on the model that resulted from the literature review (see section 4.4). It disaggregates the content of interventions into activities to show how they ultimately generate value for beneficiaries, through cause-effect relationships that link the three stakeholders considered in this research: logistics consultants, IHOs, and final beneficiaries. The model is organized into five levels:

- *Portfolio tools deployed for the project.* This level illustrates the consulting products that are used by logistics consultants during their interventions.
- *Results of project workstreams.* The second level disaggregates consulting tools into sets of outputs that are delivered by consultants as a result of their activities. This dimension shows the contents over which consultants still have a significant degree of control.
- *Effect on IHOs' activities.* This dimension lists the first-level outcomes of consultancies. The implementation of outputs and deliverables listed on the second level is expected to result into these logistics (and, more generally, supply chain) improvements. The objective of this level is to clarify which logistics benefits can be extracted from the activities carried out during consulting projects.
- *Aggregate effect on IHOs' logistics performance.* This level converges the logistics performance improvements presented in the preceding step into efficiency and effectiveness increase (these two dimensions emerged as the fittest to define logistics performance). Uncertainty reduction was also included. This element often hampers the success of humanitarian supply chains; thus, it can be relevant to highlight which activities contribute to its decrease.
- *Sustainable impact on IHOs' programs.* The last level shows the sustainable results that IHOs can obtain following consultancy interventions and the implementation of solutions. It points out which benefits they can obtain with respect to their own programs and, ultimately, the well-being of targeted beneficiaries.

The design of a comprehensive conceptual framework resulted in the model presented in Figure 16. It provides an overview of the causal relationships linking portfolio tools (broadly categorized into analysis and capacity strengthening) to the final impact on IHOs' programs. However, this model presents some criticalities. Firstly, clustering contents at each level in general terms strongly limits the applicability of the framework in real contexts. Contents are not specific enough; thus, they do not show how consulting services influence IHOs' performance with a satisfactory level of detail. Secondly, some causal relationships are based on assumptions that may not hold in every context. For instance, the delivery of best practices from the commercial sector might not fit the conditions of the

humanitarian space. Also, it is not always the case that training lead to behavioural changes of participants. All in all, this framework appears to be too uncritical and adds little value to what is already known about the impact of consulting services.

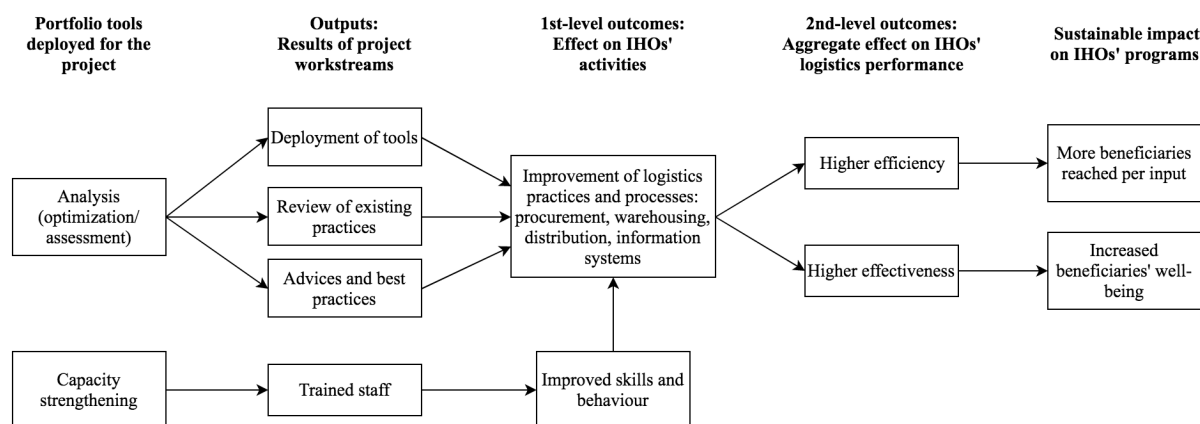


Figure 16. General conceptual model for impact creation. Source: own elaboration

Following the considerations presented above, a new model was developed taking a more specific type of consultancy as a starting point. The assumption was that a narrower scope of representation could lead to higher visibility over the actual events occurring at each level. Information for the development of the next models was retrieved through two main sources: (i) interviews with logistics consultants and humanitarian managers involved in projects related to the presented categories; (ii) review of secondary sources such as project charters, project templates, and consulting reports. Taking the five levels described above as a starting point, the design approach was mainly inductive, drawing from the available information to establish sound connections between couples of items.

Figure 17 shows a conceptual framework for a consultancy intervention aiming to the improvement of IHOs' procurement function. The five levels linking portfolio tools to impacts remained the same, and items are still linked by causal relationships. However, the narrower scope of analysis allowed to increase the granularity of items. The framework unpacks the "black box" of logistics consulting, making the process more explicit in terms of contents and expected impact. Practitioners can go through the model starting from any tool listed in the first column and understand through a few, simple steps, how it can contribute to a sustainable impact on the beneficiaries' side.

For example, consider the Spend Analysis tool on the left of the framework. One of the results of this activity performed by consultants is the definition of spend categories of sourced items, including data such as volume and value of purchased goods. The visibility over this information allows IHOs to reduce cash-based, low-value transactions. Such intervention contributes, together with other factors, to the improvement of efficiency in procurement operations. This corresponds to costs savings that allow IHOs to procure a larger amount of items and ultimately reach more beneficiaries in need.

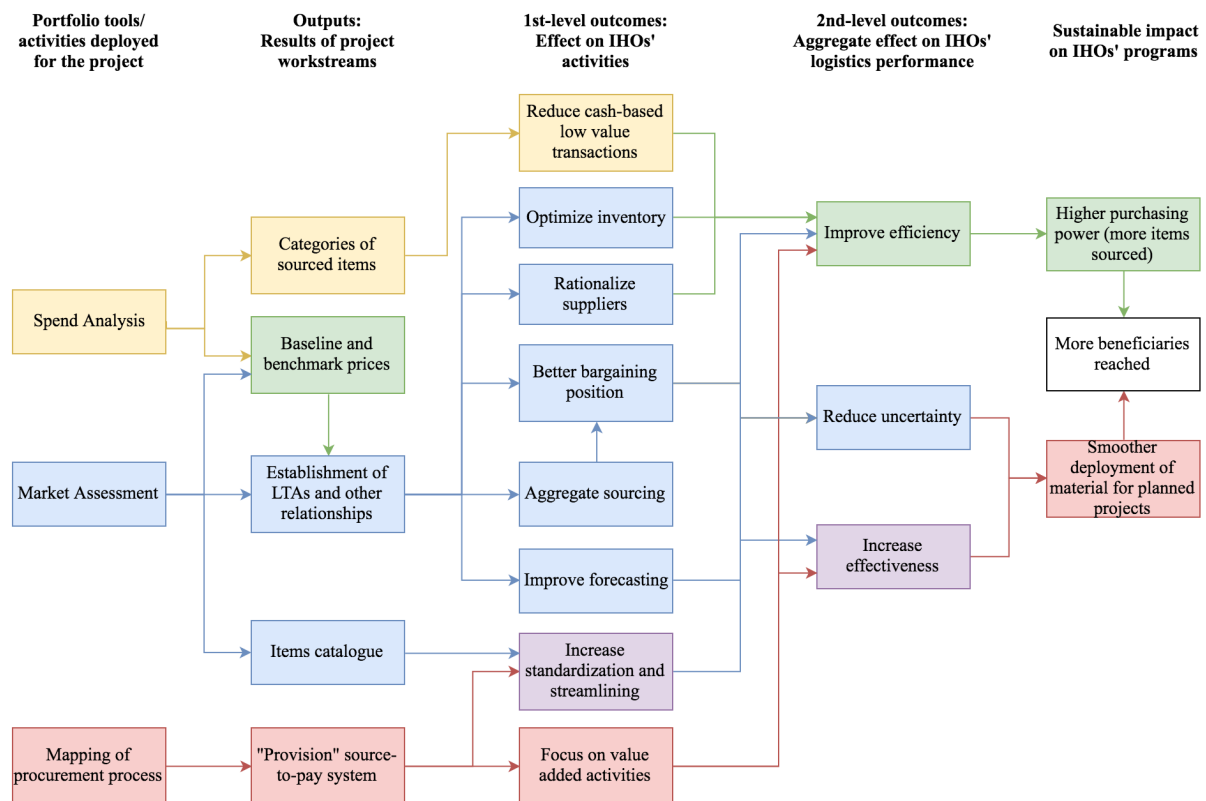


Figure 17. Conceptual framework for impact creation through procurement consultancy.²

Source: own elaboration

An important assumption behind the framework is that the cumulative deployment of tools leads to a higher impact because more logistics dimensions would be improved. However, one can choose which tool(s) to include in the consultancy. This decision may depend on the available resources or the logistics aspects that present major criticalities and higher potential for improvement. Impact areas can be chosen by looking at the items listed in the third column. For example, an IHO that wants to rationalize its supplier base (see level 3) could rely on the establishment of long-term agreements with key vendors (see level 2). In order to so, consultants could perform a market assessment (see level 1) and provide the necessary information and analysis.

Secondly, in order to move from the second to the third level, the implementation of consultancy results needs to take place. The best practices introduced in the previous chapter offer useful insights on how to facilitate this process. Although implementation cannot be directly controlled by consultants, the map shows the potential impacts that can be achieved through the deployed tools.

Figure 18 illustrates the conceptual framework for a medical supply chain analysis. The model works as the previous one, but it focuses on consulting services for the improvement of health/medical supply chains of humanitarian organizations. Again, the

² Please note that colours do not specify any characteristics. They are only used to improve the readability of the framework.

model disaggregates contents so that users can easily understand the causal relationships deriving from each consulting tool. For instance, the medical warehousing assessment leads to an evaluation of the environmental conditions of facilities (e.g. in terms of temperature and humidity control). The implementation of recommendations related to it helps IHOs to reduce the degradation of drugs, increasing the effectiveness of their medical supply chains. In other words, the partner is able to distribute higher-quality drugs to the final beneficiaries.

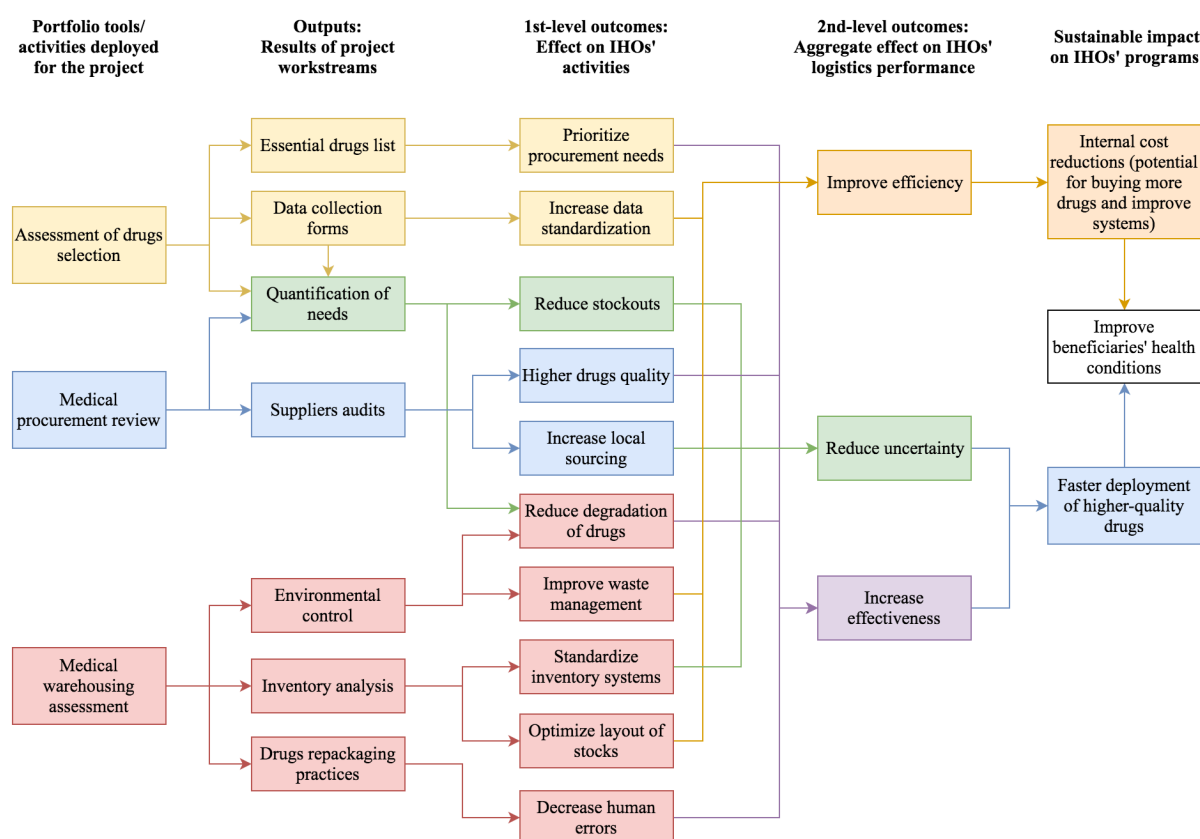


Figure 18. Conceptual framework for impact creation through medical supply chain analysis.
Source: own elaboration

Both the presented frameworks are content-based models, which explain how the activities of consultants can influence the logistics performance of partner humanitarian organizations. Obviously, these two frameworks are not exhaustive for the entire service portfolio of logistics consultants. The study also considered the aggregation of more frameworks into a single model. However, this option was abandoned. Although there are some commonalities between projects, portfolio tools have different goals and focus. For example, the scope of procurement projects is the improvement of the purchasing function, but can be applied to multiple types of humanitarian organizations. On the other hand, the medical supply chain analysis targets various organizational functions (sourcing, warehousing, distribution), but can be applied only for IHOs operating in the health sector. Combining all the elements into a unique model would result too chaotic and dispersive, reducing the applicability of the framework in real contexts. The same problem would arise

clustering items into more general categories. Similarly to the first framework that was presented, practitioners can extract little value from it when contents are too generic and do not refer to tangible aspects of consultancies. All in all, the proposed framework provides a template methodology that can be replicated for other consulting service categories. This thesis recommends practitioners to adapt it to the specifications of their portfolio, obtaining a pragmatic tool to support their activities.

6.4. KPIS FOR LOGISTICS CONSULTING IN THE HUMANITARIAN SECTOR

The discussion has often highlighted how measurement of performance is an important component of performance management. In other words, the creation of impact through consulting services needs to be supported by a measurement system that allows assessing to what extent objectives have been reached. This section will explore the design requirements and expected decision-making support for relevant measurement metrics. Then, a set of KPIs will be proposed, together with an explanation of why they fit the current requirements of logistics consultants operating in the humanitarian sector.

6.4.1. CONDITIONS FOR EFFECTIVE KPIS

Before proposing a set of KPIs that can be used by humanitarian consultants, it is important to understand what conditions should be taken into account. Van der Laan et al. (2009) proposed a set of conditions for the development of metrics in humanitarian supply chains. Although their study focuses on KPIs for humanitarian organizations, these conditions are still relevant because humanitarian consultants face similar challenges and uncertainty levels when assessing their own performance. According to the authors, effective performance measurement systems should have the following four characteristics, analysed here in the perspective of consulting organizations:

Future oriented. KPIs should not focus exclusively on historical data with a static approach, but also provide insights on how to drive performance in the future. Indeed, one of the interviewed consultants [LC2] argued that KPIs should both report on and steer actions. This condition is important because consultants need measurement metrics that allow them to move forward and develop flexible strategies to cope with the fluctuations occurring in the humanitarian space.

Balance between financial and non-financial data. The assessment of financial flows is highly relevant for the management of internal resources and to guarantee accountability on how donations are spent. On the other hand, since Kaplan & Norton's (1992) BSC, it is widely accepted that financial metrics are not exhaustive to capture the performance of an organization as a whole. This point is especially valid in the humanitarian context. Considered consultants offer pro-bono services that go beyond the goal of profitability, highlighting the relevance of non-financial measures. The absence of commercial

mechanisms for the payment of services disqualifies the use of traditional financial indicators, such as return on investment or operating margin.

Balance between qualitative and quantitative measures. Research shows that, due to the lack of adequate information systems, many humanitarian organizations struggle with the definition of quantitative measurement. This is also the case for humanitarian consultants, who often do not have the visibility over the final results of their interventions. To this respect, one of the interviewed consultants [LC6] explained that existing limitations lead to the adoption of “soft” (more qualitative) indicators to assess consulting performance. At the same time, qualitative indicators allow capturing additional insights, such as perceptions and descriptive feedback, which could not be expressed through numerical data. Thus, a combination of quantitative data, when available, and qualitative indicators seems desirable.

Alignment with corporate strategy. According to literature, performance measurement metrics should be aligned to the strategic goals of an organization (Lambert & Pohlen, 2001). Davidson (2006) argues that, in order to identify a measurement system that is relevant, it is necessary to determine what the core competencies and objectives are. In other words, the definition of a clear strategic intent is a necessary precondition for effective performance measurement.

“The performance measurement of implementation phase is something tricky. Do you really want to go and do it for the partner? Where do we draw the line between recommendation and implementation?” [LC6]

This decision usually does not depend on logistics consultants themselves, but results from the interaction with various stakeholders, such as senior management and donors. As these consulting organizations operating in the humanitarian sector a relatively recent, they may still be in the process of fully defining their scope and range of action.

6.4.2. EXPECTED DECISION-MAKING SUPPORT

Conducted interviews offered additional insights for the definition of a set of KPIs for logistics consultants. In their perspective, KPIs should serve two main purposes. On the one hand, they support internal decisions for managing the available resources; based on the current performance, they provide a baseline that can be used for continuous improvement through an adequate strategy. On the other hand, they should provide a rationale for donations, showing how funding is spent and what impact has been achieved.

Consultants highlighted four main areas of interest for performance measurement, namely human resources, financial, projects, and business development.

The *human resources* dimension refers to the headcount in the various offices and each person’s productivity. As the offering of these organizations is based on knowledge,

the staff is a relevant component of the value delivered to partners. Also, senior management expects the organization to employ the right pool of people.

The *financial* dimension deals with how donations are spent. These consulting organizations do not earn profits through their services. Thus, traditional measures such as EBIT or ROI cannot be applied. However, assessing how finances are distributed among different costs categories can provide useful insights to understand which areas may require additional resources. Spending can also be estimated in terms of time devoted to different work streams. Both human resources and finances can be interpreted as inputs to the activities that consultants perform.

Projects should be assessed in terms of activities (such as completion and timeliness of phases) and, if possible, impact on the partners. As already explained, this objective constitutes the most challenging aspect of performance measurement. At the same time, the impact dimension is crucial to demonstrate the value of delivered services.

Business development refers to how many partners, projects, and countries characterize the consulting services. This dimension is relevant to show to what extent the organization is growing and establishing its position in the market.

6.4.3. PERFORMANCE MEASUREMENT CHALLENGES

Interviewees acknowledged that measuring the impact of consulting services is important in order to provide a rationale for funding and understand which areas may need further corrective actions. However, it was noted that the measurement of logistics performance improvement that follows a consulting intervention presents challenges. In particular, these include: data availability, distorting impact of external factors, and strategic intent.

6.4.3.1. DATA AVAILABILITY

Logistics consultants often struggle in measuring the impact of their recommendations due to limited data availability. According to interviewed staff, this challenge is caused by various factors. Firstly, data may be considered sensitive by the humanitarian organization, and disclosure could be an issue for them. Although relevant IHOs' financial figures are generally published in their yearly reports, more specific information about operational efficiency may be misread by donors and other stakeholders, putting the organization at risk of negative exposure.

"Measuring them may be problematic because some of these may be sensitive ... Clients tend not to have some of their 'inefficiencies' data to be exposed to a risk of them reaching the donors." [LC4]

Secondly, when consultants are not actively involved in the implementation of recommendations, they have little visibility over the evolution of the system. In relation to this, barriers arise when the partner does not want consultants to measure the impact

themselves, because they are evaluating performance through other dimensions (for example, the volume of procurement rather than lead-time reduction). This consideration highlights potential incompatibilities between the measurements of the two parties.

“One of the most difficult challenges is to prove that we achieved something concrete like 40% of lead-time in three months time. This happens for various reasons. Firstly, I find a lot of hesitation from partners to commit to that kind of change measured by KPIs ... Secondly, it is very hard with the resources on our teams to measure impact in such as systematic way.” [LC4]

Data access is also hampered by the lack of an integrated IT system that allows to systematically collect and organize logistics information. Several organizations have not digitalized information flows yet. Data is sometimes still collected and transferred on paper and, when available on digital supports (e.g. Excel spreadsheets), issues such as inaccurate or incomplete data and incongruent naming conventions may arise. Inherently, it may be challenging to retrieve baseline information to assess which improvements have been achieved after a certain consulting intervention.

“We know how many bednets we distributed, how many babies we fed ... But how much of a drop in malaria or in malnutrition is dependent on data which is like pulling teeth. We have to coach people to measure the baseline before they begin and the same variable after the intervention.” (Parris, 2017)

6.4.3.2. DISTORTING EFFECTS OF EXTERNAL FACTORS

Interviewees noted that performance measurement needs to take into account the potential distorting effect of external factors. For example, an unexpected disaster may divert resources and attention from on-going consulting projects, leading to a poorer performance against the established objectives. Also, as the implementation of structural recommendations may take long periods of time, it happens that other contributing factors that are external to the specific projects play a role in achieving the final result. In other words, it may be difficult to isolate the extent to which the implementation of consulting recommendations leads to a logistics performance improvement within the IHO. The TNT-WFP partnership provides an example of this, as the evaluation team was struggling to estimate whether optimization savings actually derived from the consulting intervention. Kleinman (2017) argues that causality in the development sector is too complex to allow a precise measurement of impact. Therefore, practitioners should be satisfied with a limited knowledge of the ultimate effect of their interventions.

6.4.3.3. STRATEGIC INTENT

KPIs should be aligned with the strategic intent of the consulting organization (Davidson, 2006). Interviews and the review of reports highlighted that, at the moment, consultants operating in the humanitarian sector mostly focus on the delivery of high-quality recommendations and tools to their partners, without an active involvement in their implementation. At the same time, implementation of consulting solutions is a necessary

condition to achieve performance improvement through consulting services. Therefore, in order to measure impact, recommendations must be implemented.

As already explained in the section related to performance management challenges, consultants generally have a limited mandate for change management within their partners and, at the same time, they face resource constraints for the deployment of projects. Although consultants can decide the extent to which they are able to support the operationalization of solutions, the responsibility for implementation primarily belongs to IHOs.

Given this situation and the current practices adopted by consulting organizations in the humanitarian space, there are three main options that can be taken at the strategic level.

1. Completely delegate the implementation phase to IHOs and measure the achieved impact through proxies.
2. Delegate the implementation phase to IHOs, and return for a project review to measure the achieved impact with a time lag (e.g. six months later the delivery of solutions). It is important to note that, in this scenario, implementation is still completely delegated to IHOs. The difference, with respect to option 1, is that consultants could perform a direct assessment of changes occurred after their interventions.
3. Be directly involved in the implementation phase and deploy consultants fully dedicated to it. Concurrently, collect data to have a direct measurement of impact.

It is important to consider that each strategy entails different levels of investment for the development of the necessary organizational structure and capabilities. A deeper analysis of the costs and changes associated with each alternative is beyond the scope of this thesis. However, it can be claimed that, at the moment, the capabilities and portfolio of humanitarian consultants are more aligned with the first option, with increasing barriers and uncertainty levels when moving to options 2-3. Barriers mainly derive from: (i) the lack of funding that is necessary to invest in new staff and systems that are required for implementation support; (ii) the limited mandate granted by IHOs to external consultants. Uncertainty derives from the fact that deployed investments may not lead to the competencies and organizational structure that are needed to support auditing or direct implementation. Figure 19 illustrates the strategic options of consulting organizations with respect to implementation support and the consequences in terms of performance measurement. Following these arguments and the current focus of consulting organizations in the humanitarian sector, the KPIs for the evaluation of impact will consist of proxies.

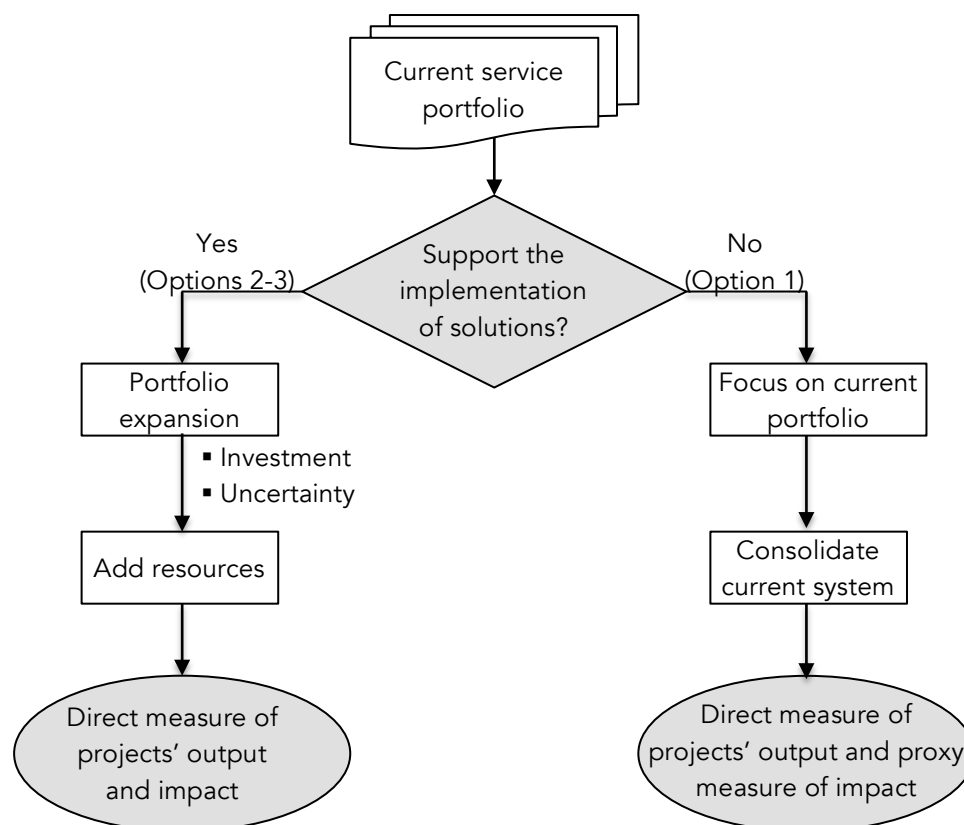


Figure 19. Effect of strategic intent on consulting organizations' performance measurement.

Source: own elaboration

6.4.4. KPIS SET

KPIs have been drafted taking into account the findings presented in the previous sections. The condition of alignment with the organizational strategy is particularly important. KPIs can only be developed after the definition of a strategic intent and, for this reason, the thesis assumes that the considered consulting organizations will focus on their current product portfolio, rather than expand to a systematic support of implementation. KPIs balance the trade-offs mentioned earlier: quantitative vs. qualitative, financial vs. non-financial, and forward vs. backward looking. Another important criterion that was considered is the potential access to the required data.

The indicators have been clustered around the four areas presented in section 6.3.2, namely human resources, financial, projects, and business development. These are the key decisional dimensions that emerged during the interviews. Presented KPIs are relevant both for reporting to the organizational Board and managing operations at regional/global level. The first two groups are more related to the concept of efficiency. On the other hand, the over-arching goals of logistics consultants are: (i) the *improvement of performance* of the client through the delivery of *high-quality* services and, especially for smaller organizations, (ii) the *growth* of business. Thus, strategic objectives are closer to the last two groups. However, the inclusion of efficiency-related indicators is necessary, because operations depend on the limited available resources. These are subject to an increasing scrutiny by

donors, who hold consultants accountable about how money is allocated and spent. Table 9 shows the list of developed KPIs and their description.

Category/Indicator	Description
<i>Human Resources</i>	
Headcount per region/country*	Number of staff members working in each regional or country office*
Staff retention rate	$\frac{\text{Staff in period X} - \text{Staff turnover in period (X-1)}}{\text{Staff in period X}}$
Time per activity	Time devoted by staff for different activities (e.g. projects, business acquisition, administration, outreach/events)
<i>Financial</i>	
Costs per activity	Financial input for performed activities (internal cost controlling)
Estimated value of projects **	Estimated external commercial value of comparable projects
<i>Projects</i>	
# projects per tool	Number of projects based on existing and/or new tools
% projects on time (or on budget) **	Percentage of projects completed within the forecasted constraints (project quality)
Signoff of deliverables by senior management **	Close-out project signing of final deliverables by senior management of partner organization
Customer satisfaction **	Structured rating of partner satisfaction after project completion. This should include estimates about the potential savings in terms of time and costs that can be achieved.
Partner commitment **	Evaluation of partner's deployment of resources
Impact map check (if applicable) **	Completion/delivery of items listed in the second column (outputs) of the relevant conceptual framework for impact creation
<i>Business development</i>	
% renewed/expanded projects **	Percentage of projects renewed (same charter) or expanded (new charter) with existing partners
# (new) partners	Number of (new) organizations/institutions setting up projects with the consulting organization
# (new) countries	Number of (new) countries in which the consulting organization operates
# attended international events	Number of international conferences, networking events, seminars, etc. in which the consulting organization participated
# new tools developed	Number of new products/services developed by the staff

* Each indicator can be assessed at aggregate level and/or on a regional/national basis.

** Indicators that can be used as proxy impact measurements.

Table 9. KPI prototypes. Source: own elaboration

6.4.4.1. PROXY INDICATORS FOR IMPACT

The list of proposed KPIs includes indicators that can be used as proxies for the impact of logistics consulting (marked with the symbol **). As already mentioned,

consulting organizations currently do not engage in implementation support in a systematic way. Therefore, a direct measurement of performance improvement through conventional logistics KPIs is not feasible. Proxy indicators indirectly show the value that partners extract from consulting services, providing a rationale for activities.

Percentage of projects on time (or on budget). This is a basic indicator of project quality, which shows how activities have been planned and performed in a way that allowed to reach the established objectives within the existing constraints.

Estimated value of projects. Although it is not possible to define the value of pro-bono services through market capitalization or direct pricing, the price of comparable commercial consultancies can be a good proxy. This is not directly related to the concept of impact as defined for this thesis (improvement of logistics performance within IHOs). However, it can be a powerful tool to highlight the value of delivered outputs in financial terms and compare it with the inputs provided by donors.

Signoff of deliverables by senior management. The importance of top-level commitment for deploying the resources required for implementation cannot be stressed enough. Ideally, senior management should be involved throughout the consultancy, in order to drive improvements and facilitate operations. However, the signoff of deliverables (which should include a clear action plan) can be treated as an indicator of agreement about what needs to be done, as well as a validation of the intervention.

Customer satisfaction. A customer satisfaction survey can potentially provide qualitative data about the performance improvement resulting from consultancies. Unstructured feedbacks may consist of general impressions about consultants, which have little utility for evaluating impact. Thus, questionnaires should also ask partners to estimate (or measure, if possible) the expected logistics impact, for example in terms of costs or time savings. This can be complemented with a qualitative description of how processes and systems have changed after the implementation of recommendations. Also, customer satisfaction provides an indication of sustainability of the business.

Partner commitment. Interview findings show how humanitarian organizations struggle with a lack of (professional) staff and, more in general, a limited amount of available resources. Consultancies are often “squeezed” within existing schedules. On top of this, logistics is not seen as a core function, and it is difficult to obtain funding for process improvement projects. This is evidence of the fact that, when IHOs are willing to deploy limited resources, such as knowledgeable staffs that participate actively in the project, they consider consultancies as value-added activities. Thus, it can be argued that, when commitment is evident, the partner will proceed with the implementation of solutions to improve its logistics processes and extract some return from the investment made. Measuring the extent to which the partner contributes time and human resources in a quantitative way may be challenging. However, a qualitative assessment of the proactive

participation of partners' staff, as well as the deployment of a knowledgeable project leader, can provide valuable insights about this dimension.

Impact map check. As already explained, the conceptual framework for impact creation presented in section 6.3 disaggregates the content of consultancy services to show how they generate a sustainable impact within IHOs. Consultancy services generally stop with the delivery of results, whose content is presented in the second column of the map. The model then shows how, conditionally to the implementation of solutions, results propagate into logistics performance improvement. Therefore, an assessment of the extent to which items in the second column have been completed can provide a proxy for impact within IHOs.

Renewed/Expanded projects. The percentage of renewed or expanded projects indicates the number of interventions that were repeated with the same charter or extended through new charters for related projects. This indicator is proposed as a proxy for impact because the extension of projects shows that partners were able to obtain some benefit from previous interventions. Again, IHOs suffer from lack of resources, and it can be argued that they are willing to use them for additional collaborations only if previous ones sorted positive effects.

6.5. VALIDATION OF RESULTS

In accordance with the AR approach, feedback sessions were organized during the research process, in order to obtain inputs from participants about the intermediate results. The last section of this chapter presents the considerations that emerged in relation to the thesis outputs, when presented to experts. As already explained, an empirical validation of results was not possible, due to the limitations of this thesis. The implementation of proposed tools is conditional to strategic decisions that need to be made by the involved logistics organizations. These require a timeframe that is much longer than the time available for the project. Although an empirical validation of the tools is suggested for future research, a first assessment of the results' applicability took place, as detailed in the following.

6.5.1. CONCEPTUAL FRAMEWORK

The conceptual framework for procurement consultancy was presented to two managers from HELP Logistics during a workshop held in Zurich. According to them, the model provides a useful tool that can serve three main purposes:

- *Internal management of projects.* The framework can be used internally to visualize which tools can be deployed to solve the logistics challenges that emerge during projects. Also, a continuous update of the contents generates learning material to

train new consultants and share knowledge among members of the organization (for example across regions).

- *Business development.* The framework breaks down projects into activities and causal relationships, increasing the visibility over the chain of events that result from consultancies. Therefore, the model can support consultants to show partners what is the value of their interventions and which logistics performance improvements can be achieved. It was noted that, at the beginning of projects, humanitarian managers only focus on the tools to be deployed (first level), with rough expectations about efficiency or effectiveness improvements (fourth level). The framework fills the gap between these two extremes, facilitating mutual understanding on what needs to be done and which resources should be deployed to achieve the targets.
- *Accountability to donors.* As already mentioned, the conceptual frameworks can be used as proxies for impact. When a direct measurement of impact is not possible, these maps constitute valid surrogates to inform donors about the achievements resulting from consulting projects. The first two levels constitute the part of the system that is still controllable by consultants – i.e. the output of projects. They are measurable and consultants can directly report on them. On the other hand, the last three levels are conditional to the implementation of recommendations by IHOs. Although a direct measurement of performance improvement may not be possible, outlining the causal relationships that link outputs to outcomes is a powerful proxy for it.

Given these considerations, HELP Logistics was interested in using the model and replicate it for other tools. It provides a construct that can be used for the generation of additional data in the future. The discussion confirmed that contents include a sufficient level of detail and that having distinct frameworks for different tools increases their applicability in the business.

6.5.2. KPIS PROTOTYPES

The proposed KPIs could not be empirically tested with real data from consulting organizations due to time constraints of this thesis. Indeed, the collection of information for a real-case assessment of the indicators is possible only after a definitive set has been confirmed. HELP Logistics will take the prototypes as an input for the development of an internal measurement system. The idea is that various consulting organizations can draw from the proposed list the sub-set of KPIs that best fits their needs and strategic intent. The time component should also be taken into account, assessing the evolution of indicators with the required frequency.

Concerning the proxy measurement approach for the evaluation of consulting impact, an authoritative validation came from Prof. Luk Van Wassenhove³, who pioneered the field of humanitarian logistics. When asked about how consulting organizations could measure impact without being there to do the implementation, he answered:

*"You cannot. This is one of the most difficult things to do. **You can only measure proxies**, such as what initiatives have been taken. You can measure reputation ... This is a field in which you have to believe what the outcomes will be and take risks. Proxies can also be about measuring and controlling the quality of the projects. If you have quality controls such as ISO standards, and you certify that procedures are good, then you can argue that outcomes will be good too. It makes sense to have proxies and stories. You can use soft indicators. Tape one or two-minute videos to show what has been done". (L. Van Wassenhove, personal communication, June 22, 2017)*

These considerations corroborate the concept that proxies are a valid alternative when a direct measurement of performance improvement is not possible. The statement highlights how the quality of procedures employed for consulting interventions can be used as an indirect proof of impact. The proposed proxy KPIs are in line with this argument, as they show different facets of project quality. These range from a basic assessment of on-time and on-budget completion of interventions, to higher-level considerations such as customer satisfaction, partner commitment, and renewal of projects. The best practices presented in the previous chapter offer insights on how to increase project quality. Also, the statement suggests the adoption of "soft" indicators such as organizational reputation or story-telling as proxies.

³ Luk Van Wassenhove is a Professor of Technology and Operations Management at INSEAD. There, he also holds the Henry Ford Chair of Manufacturing and leads the Humanitarian Research Group.



Logistics consulting provides a valuable tool to solve existing criticalities in humanitarian supply chains. Given the potential for performance improvement of IHOs' logistics processes, various organizations offer pro-bono support in terms of logistics expertise, rather than assets or direct funding. However, consulting organizations struggle with the creation and measurement of impact through their services. One of the main reasons is that their mandate is often limited to the delivery of recommendations, without a direct control over the implementation of solutions.

This situation emerged at HELP Logistics as well, providing a rationale for this research. In order to tackle this problem, the objective of this research was **to analyse and measure the impact of consulting services on the logistics performance of humanitarian organizations**. This was achieved by answering the following main question:

How can logistics consultants improve the performance management and measurement of their services to have an impact on humanitarian logistics?

It was found that consulting organizations need to acknowledge the existing challenges that reduce the impact of their services. Consulting performance can be improved through the adoption of best practices, both at the project and strategic levels. A key prerequisite for effective management and measurement is the clear definition of the strategic intent and scope of the organization. The main outputs of this research were a conceptual framework and a set of KPIs. These support consulting organizations to unpack the "black box" of logistics consulting and assess the impact of services on the logistics processes of humanitarian organizations.

Section 7.1 will provide answers for the sub-questions in order to reach the presented research objective. Then, section 7.2 will elaborate on the practical and scientific contributions of this research. Finally, section 7.3 will reflect on the limitations of this thesis and provide guidelines for implementation of results and for future research.

7.1. RECAP OF RESEARCH QUESTIONS

The main question was disaggregated into six research questions to reach the research objective in a more structured way. These sub-questions were mapped in the

research framework (see section 3.3.2) that was elaborated starting from the AR approach proposed by B. L. Berg (2004a).

RQ1: What is currently known about performance management and measurement for logistics consulting in the humanitarian sector?

The literature review showed that there is a theoretical gap with respect to performance management and measurement of logistics consulting in the humanitarian sector. Therefore, the thesis investigated the fields of performance evaluation in the consulting sector and the humanitarian sector, as the research topic lies in their intersection. It was found that, in both areas, performance is usually managed focusing on the section of the system spanning from inputs to outputs, while outcomes and final impacts tend to be overlooked. The literature on performance measurement in the humanitarian sector shows that there is no dominant standard yet. The review resulted in a model linking logistics consultants, IHOs and final beneficiaries. It proposes an evaluation of their performance along the dimensions of efficiency (outputs per input) and effectiveness (the extent to which outcomes or impacts have been achieved).

Due to the novelty of this research, specific insights could only be obtained from secondary sources made available from the involved organizations. Findings show that logistics consulting organizations operating in the humanitarian sector face a situation that is similar to the one outlined above. HELP Logistics developed a structured performance management system characterized by a clear sequence of phases: initiation, planning, analysis, design, implementation, and closure. However, findings showed that while a direct control can be exerted up to the design stage of projects, implementation can only be influenced indirectly, conditionally to IHOs' willingness to involve consultants. This leads to the fact that most consultants limit their interventions to the delivery of recommendations, without a direct involvement in the implementation phase.

It was found that performance measurement should be embedded in the performance management system of consulting organizations. The main reason for performance measurement is the evaluation of the impact of the provided services on the IHOs' logistics performance. Currently, this is challenging for all the considered consulting organizations. When a measurement system for delivered projects is in place, this is mostly limited to the activity or output level.

RQ2: What services do logistics consultants in the humanitarian sector currently offer?

An analysis of the portfolio of logistics consultants – with a particular focus on HELP Logistics – showed that these organizations divide their offering, to different extents, between consulting services and training. As explained in chapter 2, the scope of this thesis focuses on logistics consultancy, intended as those interventions that aim to the improvement of IHOs' logistics performance, by modifying existing processes and systems.

In this perspective, training sessions are relevant because they often integrate consulting interventions by filling emerged knowledge gaps; this facilitates the deployment of consulting projects. It was found that these organizations developed standardized tools, which can be consistently applied over time. This also helps to clarify the existing portfolio to potential partners. Customization still plays an important role to fit the specific needs of clients.

Consultancies either aim to the assessment or the optimization of current practices and systems. Optimization relates to the concepts of efficiency and effectiveness mentioned above. Projects are structured along one or more supply chain phases (procurement, warehousing and inventory, distribution). Particular relevance is attributed to procurement projects, as IHOs spend most of their budget on the purchase of the items they require for their own programs. Also, interventions can be declined to the specific supply chain requirements, as in the case of medical supply chain consultancies. The analysis of delivered services was corroborated with three real examples of past consultancies carried out by different organizations.

RQ3: Which performance management challenges do logistics consultants face?

Answering to this question allowed to show the performance management barriers that logistics consultants face when engaging with IHOs. The performed content analysis led to the identification of four main challenges:

- Poor problem definition and articulation. During the initiation phase, IHOs struggle with the articulation of what needs to improve. This can be caused, for example, by a low awareness of available services or the lack of improvement objectives concerning logistics processes.
- Lack of commitment. This element stems from factors such as the lack of support from senior management, organizational fragmentation, and low trust towards consultants.
- Cultural divergence. As IHOs are not commercial-driven organizations, their strategic intent differs from traditional businesses, going beyond the concept of profitability. This often leads to a low push for continuous improvement.
- Resources constraints. It was the category that interviewees cited the most. This highlighted the fact that both parties operate with an amount of staff and funding that is often considered insufficient. To this respect, donors sometimes fail to capture the value of process improvement within IHOs and prefer to fund humanitarian projects on the delivery side.

Each category was linked to related root challenges. These factors may emerge in different combinations and magnitude depending on the specific project or partner, as illustrated in the proposed examples. They concur for the decrease of the impact of

logistics consulting services. In other words, when these challenges arise, it is more difficult for consultants to positively affect the logistics performance of IHOs.

RQ4: Which best practices can logistics consultants adopt to improve the effectiveness of their services?

This question was answered by looking at previous consultancy projects and using insights emerged during interviews. Best practices have been clustered into five main categories, visualized in Figure 13 (p. 64). Three categories pertain to individual projects:

- Scope management (planning phase). This includes the identification of needs, decomposition of interventions into manageable units and definition of a project charter.
- Characteristics of deliverables (design phase). In order to facilitate the implementation of consultancies results, the outputs of projects should comply with the characteristics of transparency, clarity, relevance, and applicability.
- Implementation support (implementation phase). Best practices belonging to this category are conditional to the strategy adopted by consulting organizations. In general, implementation can be supported through mixed project teams and the buy-in of the plan from senior management and donors.

The other two categories facilitate an effective impact on a wider level, not specific for single projects:

- Knowledge management. Knowledge represents the key asset in the value proposition of logistics consultants. Best practices related to its management include the definition of standardized tools and the establishment of systems for sharing expertise about consulting projects. Also, it was found that the creation of an ecosystem of experts from various sectors is a valuable strategy to facilitate consulting.
- Partners management. This category, which is linked to the previous one, highlights the importance of establishing long-term relationships, rather than one-time collaborations. This approach increases trust and transparency between parties.

RQ5: Which consulting framework and performance measurement metrics can be used to assess the impact of logistics consulting in the humanitarian sector?

The design section of this thesis allowed to answer this question. Pre-design considerations such as the definition of performance and the value of consulting services in the humanitarian sector were taken into account. This led to the development of a conceptual framework for impact creation that is structured into five subsequent levels: portfolio tools (activities), results of projects (outputs), effect on IHOs' activities (1st-level outcomes), aggregate effect on IHO's logistics performance (2nd-level outcomes), and impact on IHOs' humanitarian programs. The stages, which resemble the logframe layers,

are used to show the causal relationships linking the three stakeholders defined in the project scope. The proposed framework is a content-based model that focuses on sub-sets of logistics services provided by consulting organizations. A generic approach was discarded to increase the applicability of the tool and generate real visibility over the cause-effect relationships between items.

The design phase also included a set of KPIs for logistics consulting in the humanitarian sector. Several conditions were reviewed, including conditions for effective KPIs, expected decision-making support, and existing performance measurement challenges. Following the considerations on strategic intent mentioned in the previous section, it was suggested to adopt proxies for assessing the impact of consulting services. It was found that there is little visibility over the actual results of projects, because the mandate of consultants usually finishes before the implementation phase. This does not allow to assess consulting impact through conventional logistics KPIs. The fact that results cannot be measured directly does not imply that there is no impact creation. Instead, the use of proxies guarantees the quality of consulting, as well as the value of outputs. If the process quality is in control, outcomes can be reached without a direct supervision of the implementation phase. The proposed KPIs were divided into four main categories: human resources, financial, projects, and business development. These areas address the main concerns of consultants in terms of performance measurement. The discussion pointed out which prototypes could be used as proxies for impact, explaining why they are considered fit for this purpose.

RQ6: To what extent is the developed consulting framework applicable by logistics consultants?

This question was addressed validating the research outputs with the opinion of experts. In particular, two managers from HELP Logistics reviewed the consulting framework. They highlighted that the tool could serve three main purposes: internal management of projects, business development, and accountability to donors. KPIs were developed in line with the organizational strategy of considered consultants. Interested organizations can draw a subset from the proposed list to meet their specific needs. After that, an empirical validation on real projects is recommended.

7.2. RESEARCH CONTRIBUTION

This section illustrates the contributions that this research offered on two levels. Firstly, findings contribute practically to the performance management and measurement of consulting organizations. Provided recommendations can be adopted to extract value from this research. Secondly, the research provides new insights and results for the body of knowledge about the treated topic.

7.2.1. PRACTICAL CONTRIBUTION AND MANAGERIAL IMPLICATIONS

The main driver to initiate this thesis emerged from the challenges that logistics consultants in the humanitarian sector were facing in managing and measuring their performance. Given the practical nature of the problem, the research provides several contributions for interested practitioners. This is in line with the chosen research approach (AR), which aims to study an organizational problem and improve it through the involvement of those who need to solve it. Although HELP Logistics was the main partner for this work, findings can be applied by other consulting organizations operating in the same sector.

Firstly, this research shows that consulting organizations need to clarify their strategic intent in order to effectively manage and measure their service portfolio. HELP Logistics bases its value proposition on a high-quality portfolio that was standardized and validated over time. It was found that the main strategic decision faced by these organizations is whether or not they should support directly the implementation of consulting solutions. Section 6.4.3.3 outlines the strategic options of consulting organizations, showing which implications they have in terms of performance measurement. Based on the available information in terms of resources and capabilities, it was recommended to focus on the current portfolio, rather expanding towards systematic implementation support. Following this path, the research highlights that it is reasonable to assess the impact of interventions through proxy measurements. Striving for direct measures cannot lead to satisfactory results if the organization does not have the necessary visibility over the operationalization of solutions within IHOs. This can only happen by committing to implementation support or auditing projects with a time lag. In general terms, this thesis confirms the fact that organizations need to clearly define their strategic goals and capabilities before engaging in the development of performance measurement systems.

Inherently to the previous point, the research proposes a set of KPIs that logistics consultants operating in the humanitarian sector can adopt. The list helps organizations like HELP Logistics to move from an unstructured measurement system, to a consistent dashboard of metrics. Furthermore, developed prototypes can improve the accountability of these organizations to donors and senior managers, while improving the internal management of resources. Once the organizational strategy has been defined in its details, it is suggested to select a sub-set of KPIs from the proposed ones, taking in consideration the needs of both the central management and the regional offices. Organizations could organize workshop sessions to foster collaborative discussion and outline a first list of metrics to be implemented. This should be followed by a data collection phase (when available it is possible to utilize data from previous projects) and an evaluation of the information that can be extracted through the selected KPIs.

The conceptual framework presented in section 6.3 provides a practical tool that consultants from HELP Logistics validated in the last phase of the research. The two

proposed maps integrate the information material about available services. In particular, they illustrate how consultants are able to generate impact through different work streams, creating visibility over the contents of projects. Up until now, HELP Logistics did not possess a causal road map linking the portfolio tools to the final impact on IHO's programs. This tool also facilitates the engagement with new partners, because it reduces the uncertainty over the outcomes and impact of proposed consulting projects and helps to identify the resources that should be deployed by each party.

Finally, the best practices proposed in section 5.6 represent managerial recommendations that logistics consultants can adopt to create an effective impact of their consulting services. They are not repeated here in detail to avoid redundancy; Figure 13 (p. 64) serves as a map from which consulting organizations can draw key recommendations to increase the impact of their services. At project level, it was found that emphasis should be placed in the planning and design phases, especially when implementation support cannot be offered. Key project steps should be up to sufficient quality standards. Outputs should be generated through consensus, in order to facilitate the autonomous operationalization of improvements. Furthermore, particular attention should be placed on the retainment and development of knowledge (both about partners and previous interventions) and the establishment of long-term, iterative relationships based on trust, transparency, and mutual commitment. The humanitarian sector is characterized by a networking trend that is pushing more organizations to engage in constructive relationships with each other. Consultants should be active participants of these systems, facilitating the exchange of knowledge and expertise among IHOs, academic institutions, and private companies.

7.2.2. SCIENTIFIC CONTRIBUTION

The main scientific contribution of this exploratory research is that it represents a first step to fill the literature gap about logistics consulting in the humanitarian sector. The literature review (chapter 4) highlighted the fact that previous research about performance management and measurement in the humanitarian sector took humanitarian organizations as primary unit of analysis. Instead, this thesis focused on logistics consulting organizations. Although previous scholars addressed the topic of performance management for consulting organizations (see Winum, Nielsen & Bradford (2002) and Phillips, Trotter & Phillips (2015)) and humanitarian organizations (Abidi et al. (2014) provide a recent review on the topic, to cite one), no study has been conducted at the intersection of these two fields. The starting point of this thesis has been the improvement potential for IHOs' logistics processes and the assumption that logistics consulting could address this need.

This research constitutes a starting point for investigating this area. It contributes to the field of performance management in the humanitarian sector, proposing a new framework that can be used to map consulting services. The model goes beyond the focus on outputs and establishes causal relationships involving the dimensions of outcome and

impact. It provides a template that integrates insights from the LFA (see Crawford & Bryce (2003)) to performance evaluation for consulting services in the humanitarian sector. Interested organizations can use the provided building blocks for their own needs.

Moreover, the derived list of challenges (section 5.5) and best practices (section 5.6) contribute to the field of project management. Consulting organizations can look at these elements for the development of their portfolio and project management strategy, especially when engaging in partnerships with humanitarian organizations. The research presents examples of consultancy projects that contribute to the body of case studies about partnerships with private organizations in the humanitarian sector, such as the ones developed by Samii & Van Wassenhove (2004), Gatignon & Van Wassenhove (2009), and Stumpf et al. (2016). They illustrate consulting interventions in a structured way, presenting different possible scenarios.

7.3. MOVING FORWARD

The last section of the chapter outlines recommendations for the implementation of research outputs, reflects on the limitations faced by this thesis, and proposes suggestions for future research.

7.3.1. RECOMMENDATIONS FOR IMPLEMENTATION

The implementation of the research outputs is outside the scope of the project. In order to facilitate this process, some recommendations are provided below.

7.3.1.1. CONCEPTUAL FRAMEWORK IMPLEMENTATION

1. Divide the service portfolio into categories that include projects with similar contents (e.g. procurement projects).
2. Organize workshops/group sessions with consultants involved in past consultancy projects. These meetings should be facilitated by a manager who is already familiar with the conceptual framework.
 - For each project category, prototype an impact model (this can be done in small groups). Information material for this task should include the template conceptual framework, previous consultancy reports, project charters, project guidelines, and consultants' personal expertise.
 - Double-check prototype models, for example through short presentations to obtain feedback and peer-review.
 - If possible, it can be useful to include managers from partner IHOs in this process.
3. Formalize/consolidate each prototype model, sharing it with all the regional offices for the internal management of projects. Short commentary can be added where useful to explain the established cause-effect relationships.

4. If necessary, adapt the models for additional purposes. This may include information material for (new) partners, reports for donors to show impact creation, and training material for new staff.
5. When a new consultancy project is rolled out, apply the relevant model to define objectives (levels 3-5), tools to be deployed (level 1), and activities to be performed/supervised (level 2).
6. After the completion of a project, if new insights emerge, update/review the applied model.

All in all, the adoption and replication of the proposed conceptual framework requires little resources, but can lead to significant organizational benefits, as outlined in the validation section of the thesis (6.5.1). The prototyping of these models constitutes a useful way to archive the existing organizational knowledge into a repository that can be continuously updated.

7.3.1.2. KEY PERFORMANCE INDICATORS IMPLEMENTATION

1. Define a clear organizational strategy. In the context of logistics consulting in the humanitarian sector, the main trade-off that emerged is whether or not to expand towards the implementation of recommendations. Estimating the costs, required resources and returns on investments for different strategic options can support this choice.
2. Define a set of KPI prototypes that is aligned with the organizational strategy. Other key elements that should be taken into account include the expected decision-making support (which questions needs to be answered and who you are reporting to through the KPIs) and the availability of data for measurements.

The findings of this thesis provide direct help for steps 1 and 2. Interested managers can draw from the proposed classification and set of KPIs. If the consulting organization decides to focus on the delivery of services without participating to implementation in a systematic way, the impact of projects is still accounted for through the listed proxies.

3. Support the systematic collection of data. This aspect, which emerged as a key challenge for consultants operating in the humanitarian space, is essential to feed the KPI system with the necessary information. Tools such as structured project data sheets should be carefully designed and employed before and after each project. It is important to remember that the IHO staff may not be prone to or self-sufficient in the data collection process; supervision and training may be required to effectively perform this task. Gathered data can then be condensed into a common database that synthesizes the information based on the chosen KPIs.
4. If meaningful, establish targets/threshold to be reached yearly (or after the suitable period) for the each KPI. This process can be facilitated by benchmarking the results of other consulting organization operating in the humanitarian sector.

5. Run a first implementation of the KPI prototypes to evaluate their applicability and usefulness in explaining to what extent the organizational goals have been achieved.
6. Update/review the selected KPIs.

7.3.1.3. DOS AND DON'TS

This research showed clear differences between the commercial and humanitarian sectors. Humanitarian consultants may need to adopt a different consulting approach compared to the one used in traditional businesses. Therefore, it is found useful to provide some general guidelines for logistics consultants who are willing to collaborate with humanitarian organizations (see Table 10). These “dos and don’ts” were validated with a master graduate who recently participated to a consulting project for an IHO.

Do	Don't
<ul style="list-style-type: none"> ▪ Complement consulting services with trainings to fill logistics knowledge gaps. ▪ Understand who your audience is (and what resources they have) and adjust the content and complexity of your deliverables accordingly. ▪ At the beginning, clearly define the scope, objective and phases of the consulting intervention through a project charter. ▪ Be flexible and reactive to possible adjustments to be made during the project. ▪ Foster commitment and engagement of the IHO staff and management through active participation. 	<ul style="list-style-type: none"> ▪ Assume that IHOs can deploy all the resources (staff, assets) that are needed. ▪ Assume that the IHO knows which are the issues to be solved and what needs to be done. ▪ Directly apply commercial models and solutions without adapting them to the IHO's situation and needs. ▪ Try to make radical changes all at once; instead, adopt an incremental approach through subsequent projects. ▪ Expect the project to progress fast; be patient and ensure to keep the wheel spinning.

Table 10. Dos and don'ts for consultants. Source: own elaboration

7.3.2. LIMITATIONS AND REFLECTION

Chapter 3 presented AR as the research approach that was adopted for this thesis. This choice derived from the fact that the researcher was part of a primary process to provide decision support to the management of consulting organizations operating in the humanitarian sector. AR facilitates action – in this case in the form of performance management and measurement – while generating scientific knowledge (Coughlan & Coughlan, 2002). The positive reaction to results obtained from interested consultants during the validation phase endorsed the adoption of this approach. Results are applicable thanks to the participatory and iterative nature of the research process, presented in detail in section 3.3.2.

In retrospective, it could be argued that a higher degree of involvement into a real consultancy project would have benefitted the research process. Although preliminary discussions, interviews, and review of secondary sources allowed to have an overall understanding of how humanitarian consultancies work, a direct experience would have provided additional insights. As already mentioned, active participation of the researcher in

the process under study is a key element of AR. Both the researcher and practitioners own the issue at hand (Coughlan & Coughlan, 2002), with the former having the role of facilitator for the inquiry of the problem and the development of solutions. Table 1 (p. 18) pointed out the history of meetings that occurred during each stage of the research. AR proved to be a valuable methodology to reach an interesting problem definition and jointly develop and validate applicable research outputs. On the other hand, this approach could have been applied to a larger extent during the data analysis phase. In fact, the analysis of documents and interviews was carried out independently by the researcher. This choice was due to the fact that practitioners could devote a limited amount of time for meetings and interviews. Therefore, AR was applied by alternating individual processing of information with model development and feedback sessions, during which partial results were discussed and improved. All in all, the AR approach led to satisfactory outcomes. It allowed proposing solutions for the performance management of logistics consultants in a way that encourages concrete changes, while advancing the scientific knowledge on the topic.

Additional limitations and reflections are identified for the main project steps. The first one refers to the data collection phase of the project. With respect to the desk research, a lot of documents and articles were reviewed. In retrospect, it could be argued that not all of them contributed to the purposes of this thesis. However, the scanning of diverse sources was essential to narrow down the scope of the research and arrive at a definitive research problem. Moreover, this extensive review contributed to gain background information about the humanitarian sector. Semi-structured interviews were identified as the primary mean for the collection of data, in accordance with the exploratory nature of the project. Although conducted interviewees allowed to collect a wide range of insights, the project could have benefitted from a larger sample size. Each of the two target groups – consulting organizations and IHOs – can vary in terms of size and organizational structure. These differences imply gaps in terms of available resources and ability to affect the existing logistics processes. Moreover, some interviewees were positioned at different organizational levels. While this element allowed to gain a comprehensive overview of processes and requirements, it could also influence the perception and importance attributed to the contents of discussions. A wider sample could have helped to overcome these limitations. Given the limited time available to conduct this project, it was decided to prioritize the diversity of insights that could be gained to have an overall picture of the system. Arranging, conducting and transcribing interviews are time consuming processes. Therefore, being able to process 12 interviews is considered a satisfactory result. It is important to point out that, on top of this amount, additional interviews were conducted to obtain background information or specify missing details. Although it would have been possible to reach out more practitioners in the last weeks of the thesis project, it was decided to focus on the design and validation phases, elaborating on the analysis of available interviews.

The second limitation refers the design phase. Ideally, it would have been desirable to replicate the conceptual framework for more tools. Repeating the exercise for other products could have led to additional insights. The choice of focusing on procurement projects and pharmaceutical supply chain assessments stems from the fact that these are the most relevant services within the portfolio of the considered organizations. Moreover, the consulting managers who validated the research output agreed about the granularity of results and endorsed the choice of creating different maps. Indeed, the main trade-off encountered in the design phase was the level of detail to be adopted. Opting for a comprehensive framework allows to condense results into a unique model, but reduces the applicability and significance of what is presented. On the other hand, too many details would make the model overly complicated and dispersive. If deemed necessary, additional interviews should be conducted to obtain a higher precision in cause-effect relationships outlined in the frameworks. The designed model provides a solid structure that can be replicated to corroborate results through an iterative approach.

Thirdly, the validation phase would have benefitted from an implementation of results followed by an empirical evaluation. Applying the findings in a real organizational environment allows to fine-tune details and gather empirical data to assess the applicability of tools. As already mentioned, this was not possible due to time restrictions. Instead, section 6.5 presented the validation of outputs with experts. This assessment was qualitative and conducted during a workshop in the form of discussion. The process could be improved by introducing more specific criteria for the validation of results, to be measured quantitatively. This would sustain the qualitative feedback with more precise data that can be used for further improvement.

7.3.3. FUTURE RESEARCH

Given the exploratory nature of this study, future research can take the presented findings as a base for more structured investigations. Inherently to the last point of the previous section, researchers could conduct a study to validate the proposed conceptual framework and KPIs on real cases of logistics consultancy. It is suggested to collaborate with one or more consulting organizations for the implementation of the presented models, in order to obtain direct results about their applicability and verify whether adjustments are required. In particular, more research is needed to assess to what extent the proposed proxies represent accurate indicators for the positive impact of consultancy projects on the logistics performance of IHOs.

Secondly, it would be interesting to investigate the relationships between the best practices and challenges presented in chapter 5. Taking the listed items as a departure point, further research can explore which best practices should be adopted in order to solve specific performance management challenges. In general, findings would benefit from a larger sample of interviewees, as well as the control of additional factors such as

interviewee role or size of the organization. This study would result in more precise recommendations that logistics consultants can adopt to solve the issues they face.

Thirdly, it would be valuable to investigate with a higher level of detail the strategic options of consulting organizations and the required investments. Section 6.4.3 presented different strategic paths that can be followed with respect to the provision of implementation support. Research could evaluate the costs and risks that each option entails. This would also include the specification of skills, processes, and structures that should be developed. A scenario analysis can provide an overview of how the organizational system would evolve depending on which strategic decision is adopted.

Finally, future research can consider the application of the Q methodology to identify the main stakeholders and map their interests and perceptions. As already explained, this study took logistics consultants as the primary unit of analysis, but humanitarian supply chains involve multiple actors. An analysis of their viewpoint with respect to the overall system can generate insights to foster greater collaboration in the sector.



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APPENDICES

APPENDIX A — LIST OF INTERVIEWEES

Code	Role	Organization type
LC1	Head of Global Programs	Small consulting organization for humanitarian logistics
LC2	Managing Director	Small consulting organization for humanitarian logistics
LC3	Founder	Small consulting organization for humanitarian logistics
LC4	Regional Director	Small consulting organization for humanitarian logistics
LC5	Regional Representative	Small consulting organization for humanitarian services
LC6	Regional Director	Small consulting organization for humanitarian logistics
LC7	Global Manager Logistics Support	Large logistics company
LC8	Regional Manager	Large consulting organization for humanitarian services
HM1	Country Director	International NGO
HM2	Operations Manager	International NGO
HM3	Regional Director	International NGO
HM4	Logistics Director	International NGO

LC: Logistics Consultant

HM: Humanitarian Manager

APPENDIX B1 – EXAMPLE OF BUSINESS-ORIENTED INTERVIEW SCHEME

Purpose of the study

To analyse and evaluate the impact of consulting services on the logistics performance of humanitarian organizations.

Objective of the interview

To collect information about the perspective of logistics consultants on the objective. In particular, the goal is to understand the activities, best practices, outputs and expected impacts related to organization's service portfolio.

General remarks

- Address confidentiality
- Ask permission for recording
- Ask if there is any question before starting

PART 1: BACKGROUND INFORMATION

- What are your job title and responsibilities?
- What is the strategic objective/mission of your organization?

PART 2: CONSULTING SERVICES

- Why, in your opinion, IHOs ask the intervention of consulting organizations?
- What are the main logistics challenges that they face?
- Which services/products do you offer to IHOs?
 - Could you please provide examples of logistics consultancy projects?
 - Could you please elaborate on the involved phases/steps?
- Do you have a standard project management methodology?
- What are the main challenges faced by your organization when working with IHOs?
- What are the main constraints that your organization needs to take into account when providing its services?
- In your opinion, which improvements could be made to facilitate an effective impact of logistics consulting services?

PART 3: PERFORMANCE MEASUREMENT

- How would you define the concept of *performance* for logistics consulting services?
- How would you describe the impact (i.e. sustainable outcome at the end of the project) achieved through the services you deliver?
- In your opinion, how aligned are the objectives of your organization and the IHOs you work with?
- How do you currently measure your performance?
- Which kind of decision making support do you expect from KPIs?
- How do you collect the data that you use to measure performance?
- How would you describe the difference between a successful and unsuccessful consulting logistics project from HELP AG?

- The practical objective of this research is to develop an assessment tool for evaluating your consulting (logistics) services to IHOs. In your opinion, which design criteria should be taken into account to make this tool implementable?

CONCLUSION

- Would you like to provide any additional information about what we discussed?
- Ask if it is possible to send back interview notes to receive feedback and additional comments.

APPENDIX B2 – EXAMPLE OF PROJECT-ORIENTED INTERVIEW SCHEME

Purpose of the study

To analyse and evaluate the impact of consulting services on the logistics performance of humanitarian organizations.

Objective of the interview

To collect information about the consulting project X.

General remarks

- Address confidentiality
- Ask permission for recording
- Ask if there is any question before starting

PROJECT QUESTIONS

- In the context of project X, which were the initial situation and rationale for consulting?
- Could you please describe the project and its contents/phases?
- Which challenges emerged during the project?
- Which inputs did the two parties (logistics consultants and humanitarian staff) provide for the success of the project?
- Could you name some of the recommendations and output that were provided?
- Was an implementation plan provided?
- Did you measure the results of the project? If so, how?
- How did logistics performance improve after the consulting intervention?
- Looking back, what could have been done better?

CONCLUSION

- Would you like to provide any additional information about what we discussed?
- Ask if it is possible to send back interview notes to receive feedback and additional comments.

APPENDIX C – CODING RESULTS

Category	Code	Example	# References	# Sources (n=12)
Consulting projects				
<i>Type</i>	Training	"We provide trainings that are embedded in consulting services"	10	7
	Consultancy without implementation	"At the moment, the consulting process stops with recommendations, without joining the implementation phase"	18	9
	Consultancy with implementation	"We created an implementation package and rolled it out in a couple of countries"	6	3
<i>Rationale</i>	High quality of service portfolio	"There is strong demand because of the high quality of what we deliver"	5	3
	Validate or improve existing practices	"We request interventions to assess what we are doing"	13	8
	Transfer logistics knowledge	"The call us to fill logistics knowledge gaps"	6	5
Performance management challenges				
<i>Poor problem definition and articulation</i>	Low awareness/visibility of available consulting services	"IHOs have difficulties in articulating the problem based on our portfolio"	4	3
	Logistics not considered a core function	"The major challenge is in terms of putting logistics at the right place of the organization"	8	5
	Lack of precise change objectives	"Humanitarian organizations often don't know what they don't know"	5	3
<i>Lack of commitment</i>	Absence of knowledgeable project leader	"The reason is the lack of a strong champion in the partner organization"	3	2
	Low senior management /donors' support	"Top senior management may not be supportive enough"	5	3
	Organizational fragmentation	"Some organizations are so fragmented that the optimization in one unit is not adopted in others"	4	2
	Low trust towards consultants	"The IHO would not quickly accept and believe what is presented"	4	2
<i>Cultural divergence</i>	Low push for continuous improvement	"They do not see the value in change and do not see the point for improvement"	7	4
	Conflicting personal motives	"IHO's staff may be driven by interests that are not in line with the overall project objectives"	2	2
	Organizational inertia	"It is virtually impossible to change the culture of an organization like that"	6	4
<i>Resources constraints</i>	Diversion to unexpected emergencies	"Ongoing emergencies keep IHOs busy"	6	4
	Lack of funding for implementation	"We often deal with limited financial resources for this type of projects"	11	8
	Lack of staff dedicated to implementation	"We need more staff capacity because these organizations do not have the people to do the work"	15	9
	Solutions beyond organizational mandate	"Some recommendations may involve actions that are beyond our scope"	3	2
	Limited consulting mandate	"There is a space between our report and the implementation ... we have not direct control over it"	6	4

Category	Code	Example	# References	# Sources (n=12)
Performance management best practices				
<i>Scope management</i>	Identification of needs and processes	"There has been a lot of discussion to identify the needs and plan the consultancy; I think this is a key requirement"	8	5
	Use of project charter	"The project charter facilitates concrete projects with a clear beginning and end, budget, scope"	5	3
	Intervention break-down	"Think big, start small"	6	4
	Specific mission of intervention	"We pull out projects with a very definite and limited target"	7	4
<i>Characteristics of deliverables</i>	Transparency	"We included collected data to support the recommendations"	4	2
	Clarity	"The plan has to be clear and relatively short"	4	2
	Relevance	"Work on items that are urgent and important"	2	1
	Applicability	"You need to create a package that is fully understandable and can be replicated"	4	3
<i>Implementation support</i>	Organizational strategy definition	"We need to decide, are we implementers or are we consultants?"	5	4
	Use of mixed project teams	"The inclusion of IHO members in the team facilitated the implementation phase"	3	2
	Senior management/donors buy-in	"You need to get the buy-in from the senior management, so they show commitment and support, then make the changes accordingly"	9	5
<i>Knowledge management</i>	Standardized tools	"Products are standardized so we can consistently explain what we are delivering"	7	4
	Accumulation of experience	"Having the same consultant follow the same organization could help him develop a deeper understanding of the IHO"	6	3
	Regional presence of consultants	"This expertise can be cultivated only if consulting organizations decide to move locally"	5	3
<i>Partners management</i>	Long-term relationships	"Since this consulting arrived after two successful trainings, there was trust and a good relationship"	6	3
	Relational transparency	"We look for transparency from both sides"	5	2
	Ecosystem of experts	"Trust was built through collaboration among various parties"	4	2
Performance measurement				
<i>Definition</i>	No measurement system	"There is no real performance measurement tool in place now"	2	2
	Activity (output)	"We normally measure activity ..."	13	10
	Impact (cited as relevant)	"... while it is very hard to measure impact ... It becomes too complicated"	12	8
	Impact (measured)	"Also when we were not involved in the implementation part, impact measurement was possible"	2	2
	Business development	"We also keep track of business development"	6	3
<i>Performance measurement challenges</i>	Lack of data and IT systems	"Some NGOs don't have the right information systems to collect the data we need"	8	6
	External factors	"That is difficult to measure because there are other factors, which are outside the scope of our project"	10	6
	Strategic intent	"Our decisions over performance measurement depend on the strategic path we choose"	7	4