

Drivers of government restrictions on humanitarian supply chains

An exploratory study

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Abstract

Purpose – Foreign governments do not always welcome international humanitarian organizations responding to a disaster in their country. Many governments even impose restrictions on humanitarian supply chains through import barriers, travel restrictions or excessive bureaucracy. The purpose of this paper is to analyze these restrictions and try to identify the government characteristics that best explain the tendency to impose such restrictions.

Design/methodology/approach – Through a multiple case study among four international humanitarian organizations the authors identify and analyze the restrictions imposed on humanitarian supply chains in 143 different programs. The authors compare the average number of restrictions per country with different governmental and socio-economic situational factors.

Findings – The authors find that state fragility, a combination of government ineffectiveness and illegitimacy, is the characteristic that best explains the tendency of a government to impose restrictions on humanitarian supply chains.

Practical implications – Knowing that fragile states tend to impose a high number of restrictions helps humanitarian organizations to prepare adequately before entering a country with a fragile government. The organization can, for example, anticipate possible concerns and establish trust with the government. Commercial companies starting to do business in such country can learn from this knowledge.

Originality/value – Multiple studies have mentioned the strong impact of governments on humanitarian supply chains, but no paper has yet analyzed this problem in detail. The paper is the first to identify the characteristics that explain the number of restrictions governments impose on humanitarian supply chains, and what humanitarian organizations can do to address them.

Keywords Humanitarian logistics, Customs clearance, Government restrictions

Paper type Case study

1. Introduction

When a large scale disaster hits an area, local communities cannot cope alone with the consequences of the catastrophe. In countries with enough financial resources and disaster management capabilities, the government takes over the disaster assistance through its emergency management organization (e.g. Federal Emergency Management Agency in the USA). When government resources are scarce, such emergency management organizations are inexistent or underfunded. In such case, the

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disaster response effort relies on international humanitarian organizations that bring their assistance to help affected communities. According to humanitarian principles, these organizations have to serve all affected people in the same way, without consideration of race, religion or political affiliation. In case of war, for example, humanitarian organizations are required to be neutral and cannot take a stance in the conflict. Some governments do not agree with these principles, and therefore do not appreciate the actions of humanitarian organizations. Allowing humanitarian organizations to operate in their country may also be seen as an implicit recognition of an ongoing crisis, which governments do not necessarily want.

These reasons explain why governments do not always welcome humanitarian organizations, even when they are not able to help their own population. As a result, some governments impose severe restrictions on the activities of these humanitarian organizations. Some countries impose import barriers that seriously affect humanitarian supply chains. Other governments even deny access to humanitarian organizations, as in Myanmar following Cyclone Nargis in 2008 (Seekins, 2009; Day *et al.*, 2012).

This paper intends to analyze the problem of governmental restrictions on humanitarian supply chains based on empirical evidence, and to find what characteristics of a country explain the tendency to impose such restrictions. Based on these insights, we discuss a number of implications for humanitarian organizations preparing to respond to a disaster. Through a case study among four humanitarian organizations we collect data from 18 countries. We identify and analyze governmental restrictions affecting humanitarian supply chains in these countries. We compare the number of restrictions in each country with the characteristics of the government. In particular, we aim to answer the following research questions:

RQ1. What is the relationship between characteristics of countries and the number of restrictions their governments impose on humanitarian supply chains?

RQ2. What are the implications of these findings for humanitarian organizations?

This paper is organized as follows. In Section 2, we provide an overview of the literature on government restrictions on humanitarian supply chains. In Section 3, we describe how we use our case study data to identify the number of restrictions found in each country. In Section 4, we describe the restrictions we found. In Section 5 we develop propositions that compare the number of restrictions with several governmental and socio-economic factors in each country. We discuss these findings in Section 6, and present a number of implications for research and practice in Section 7. We conclude the paper in Section 8.

2. Literature review

Natural or man-made disasters affect the local communities' ability to assist victims of the disaster. These communities therefore often rely on the external assistance provided by humanitarian organizations (Holguín-Veras *et al.*, 2012). This external assistance is generally welcomed by host governments, but some countries are reluctant and react by imposing restrictions on these organizations. In this section, we analyze what the literature says about the complex interaction between host governments and humanitarian organizations. We first identify ways host governments help humanitarian organizations in their efforts. Then we present examples of how governments restrict the activities of humanitarian supply chains.

We describe what the literature suggests as possible motivations for imposing such restrictions. Finally, we look into what the commercial supply chain literature says on these restrictions.

Host governments play an important and positive role in humanitarian supply chains. They may, for example, coordinate activities of humanitarian organizations (Tomasini and Van Wassenhove, 2003; Balcik *et al.*, 2010), support the humanitarian effort through the military forces (Kovács and Spens, 2007), or regulate NGOs in order to increase their professionalism (Abbey, 2008). Governments often facilitate the imports of disaster response supplies by declaring a state of emergency and temporarily lifting long customs clearance processes (Kunz and Gold, 2015). Similarly, governments can also regulate and limit the convergence of self-initiated, often unprofessional, organizations to the disaster affected area (Day *et al.*, 2012). Finally, governments have the power to limit the flow of unsolicited donations that strongly disturb humanitarian supply chains by creating unnecessary bottlenecks (Holguín-Veras *et al.*, 2012).

The assistance of humanitarian organizations is, however, not always welcomed by governments of affected countries. In such cases, governments impose restrictions on humanitarian organizations. The important impact of these restrictions has been recognized by several authors so far (e.g. Bratton, 1989; Long and Wood, 1995; Kovács and Spens, 2009, 2011; Seekins, 2009; Chang *et al.*, 2010; Day *et al.*, 2012; Kunz and Reiner, 2012; Kunz *et al.*, 2014; L'Hermitte *et al.*, 2014), but was never studied in depth. Governments sometimes refuse humanitarian aid, or ban humanitarian workers from entering the country (Seekins, 2009; Balcik *et al.*, 2010; Day *et al.*, 2012). Restrictions on humanitarian aid can also occur when there is no government and the area is controlled by rebels. The Al-Shabaab rebel group, which controlled a large part of the Somali territory during the 2011 famine, did, for example, not allow humanitarian organizations to access the populations and distribute food to the victims (Menkhaus, 2012; L'Hermitte *et al.*, 2014).

Corruption is another form of government restriction impacting humanitarian organizations. Corruption is endemic in some countries, and any individual, business or humanitarian organization is expected to bribe officials for government related authorizations it might need. Corruption diverts funding from populations in need to governmental officials, and has a negative influence on donors (Altay, 2008; Maxwell *et al.*, 2012). Humanitarian organizations do generally not pay any bribes. As a result they experience substantial delays and complications in getting the required authorizations from government entities. Unsurprisingly, corruption is an even more important problem in emergency situations, because humanitarian organizations operate under strong time pressure (Schultz and Søreide, 2008).

Host governments often apply restrictions on humanitarian supply chains. They do, for example, restrain imports of humanitarian supplies through tariff and non-tariff barriers. Such import barriers strongly affect the effectiveness and efficiency of humanitarian supply chains, either by limiting the organizations' ability to prepare for disasters in a country (Kovács and Spens, 2009; Richardson *et al.*, 2016), by creating delivery delays (Van Wassenhove, 2006; Kunz *et al.*, 2014) or by preventing humanitarian supplies from being delivered (Long and Wood, 1995). In most cases, these restrictions will require the organization to find creative ways to adapt to the restrictions (Bennett, 2003; Kunz and Gold, 2015). In some extreme cases, these restrictions may even force humanitarian organizations to leave a country (Kunz and Gold, 2015), or prevent them from delivering critically needed food supplies to disaster victims (Menkhaus, 2012; Merminod *et al.*, 2014).

Some restrictions on humanitarian supply chains are more difficult to identify, as they are not based on a specific regulation but are rather a consequence of extremely bureaucratic procedures. Even though humanitarian organizations usually benefit from duty-free imports of vehicles, they must, however, register them through a highly bureaucratic procedure which may take between three and six months (Pedraza-Martinez and Van Wassenhove, 2013).

There are also situations in which governments do not purposely restrict activities of humanitarian organizations, but are simply not willing to facilitate the humanitarian work by adapting their regulations (Akhtar *et al.*, 2012). For example, Chang *et al.* (2010) found that market regulation imposed by the Chinese Government on building supplies created disincentives for companies to engage in reconstruction activities after a disaster. Balcik *et al.* (2010) note that dysfunctional governments do not often play their coordinating role during disasters, which leads to an unclear definition of the roles of the different humanitarian organizations.

There are different motivations of host governments to impose restrictions on humanitarian organizations. Some governments or rebel groups use famine as a weapon against their population, and therefore try to control the distribution of food (Murray, 2005). Driven by fears of foreign influence, governments may prevent humanitarian organizations from accessing the affected areas (Long and Wood, 1995; Bennett, 2003; Seekins, 2009; Day *et al.*, 2012). Based on these fears, governments sometimes restrict the import of goods that are considered as threatening to the government (e.g. satellite phones, armored vehicles). Governments may also impose duties on humanitarian supplies to generate income, as humanitarian aid spending often represents a large source of revenue for these countries (Abuzeid, 2009). Some government restrictions are motivated by a legitimate willingness to protect the population (e.g. ban on imports of genetically modified maize during the 2002 hunger crisis in Southern Africa, see Bennett, 2003). The government may also want to protect its local producers by preventing humanitarian supplies from being imported (Kunz and Gold, 2015).

One could ask if the problem of government restrictions is specific to the humanitarian world, or if companies face similar issues when working in some developing countries. In order to answer this question, we have looked at the literature on commercial supply chains operating in emerging countries. Davarzani *et al.* (2015) evoke the high risks of supply chain disruptions caused by political and governmental risks. Similarly, Kamann and Van Nieulande (2010) mention supply chain risks related to political instability and unforeseen power shifts in emerging countries. They also point to the longer lead times observed when delivering to emerging countries due to administrative requirements imposed by the government on the import process. Mann (2012) recognizes customs duties and non-tariff barriers as impediments to efficient global supply chain management. Sanderson (2001) demonstrates that government regulations can strongly influence the power dynamic of a buyer-supplier relationships, and some governments use this tool to protect their own industries. This problem is particularly relevant for supply chains in emerging countries, as these governments are increasingly using such regulations to protect their industry (Wang *et al.*, 2011). The underdeveloped regulatory infrastructure and lack of central coordination in some emerging countries is another challenge for supply chain management. In some countries, for example, up to ten different government ministries may be involved in the establishment of standards (Roth *et al.*, 2008). This short overview demonstrates that commercial supply chains in emerging countries face similar challenges than humanitarian supply chains.

While several papers mention the problem of government restrictions imposed on humanitarian and commercial supply chains, to the best of our knowledge no study has yet investigated which characteristics of a government explain these restrictions. This is the gap we intend to fill with this paper, since this knowledge will help humanitarian organizations when preparing to respond to a disaster in a country. Understanding government restrictions before entering a country and preparing to address them can significantly decrease the disaster response time (Kunz *et al.*, 2014).

3. Methodology

3.1 Selection of methodology

The motivation for studying these research questions came from a previous research work with a humanitarian organization (Schodl *et al.*, 2010). The initial impressions from one organization were, however, by no way sufficient to develop useful insights, and we had to collect additional empirical data in order to confirm our initial findings. Given the lack of previous research focusing on this topic, we had to take an exploratory approach. Case study research is the most adequate methodology for such approach for multiple reasons. First, it allows identifying unexpected variables and relationships (Voss *et al.*, 2002). Second, the case study research methodology is particularly well fitted for analyzing highly complex subjects (Stuart *et al.*, 2002), such as the one of governmental restrictions which include several actors (governments, donors and humanitarian organizations) interacting in different activities (customs clearance, advocacy, fundraising, etc.). Third, given this high level of complexity and numerous interactions, this topic cannot be studied out of its context and therefore has to be investigated in its natural setting. Case study research methodology allows such in-context analysis (Yin, 2009), in opposition to axiomatic research, for example, where the problem under study has to be isolated and taken out of its context. Finally, case study research allows to develop theory through observation of actual practices (Meredith, 1998), which is particularly useful in an explorative phase where the relevant theory is not yet known.

Based on the reasons presented above, we found that case study research was the optimal method for our study, and therefore decided to conduct an exploratory multiple case study among four humanitarian organizations.

3.2 Sampling

The unit of analysis is a humanitarian organization, including its headquarters and all programs it runs worldwide. We chose our case organizations following a polar type theoretical sampling mechanism, where cases are selected not for statistical reasons but for their ability to fill different theoretical categories (Eisenhardt, 1989). We first identified six humanitarian organizations that are headquartered in Switzerland (in order to facilitate interviews at headquarters and because this country hosts multiple humanitarian organizations and UN agencies) and run a program in Chad, West Africa[1]. We then selected four among these six organizations because we wanted to conduct extensive interviews at their headquarters and in the field. For budget and time reasons we had to limit ourselves to the lowest acceptable number of case organizations, which is often considered to be four (Eisenhardt, 1989). This selection process was conducted independently by three research assistants who analyzed annual reports from the six organizations and selected the four that reported government restrictions most often. Basing our sampling decision on the occurrence of governmental restrictions ensures that the problem we wanted to study would be “transparently observable” (Eisenhardt, 1989).

All four organizations accepted to take part in our study and allowed us to interview their staff members. We present the key characteristics of the selected case organizations in Table I. Due to the sensitivity of the topic, we agreed to keep the name of the organizations confidential.

3.3 Data collection

We selected interviewees among different functions at the headquarters and the program level in Chad. We wanted to have several functions represented in our interviewees, and selected members from the senior leadership and middle management, with representatives from administration, operations and logistics departments. The list of interviewees and their function can be found in Table AI. In total, we conducted 22 interviews (five to six per organization) with an average length of 61 minutes. We followed a structured interview protocol (see Table AII). Combining interviews at the headquarters and one country, Chad, allowed us to collect information about governmental restrictions in potentially 143 programs (i.e. the sum of the programs conducted by each of the four case organizations, see first line of Table I). We asked the interviewees to describe the restrictions their organization encountered, as well as the countries in which they occurred. We included each country that was mentioned in our sample. Since not all countries imposed restrictions, we ended up with a sample of 18 countries that imposed restrictions on our case organizations. Two researchers took notes during the interviews, and transcribed their notes independently. They then combined their notes into a common interview transcript which we stored in a structured database. We used respondent validation and final proofreading of the interview transcripts by each organization, in order to ensure validity and reliability of the collected data.

3.4 Data analysis

Two researchers analyzed the interview transcripts independently in order to increase reliability, by coding the interview transcripts and identifying occurrences of the different governmental restrictions mentioned by interviewees in relation to particular countries. The structured interview protocol which guided our data collection allowed us to identify, in a systematic way, all governmental restrictions experienced by each organization in every country. We initially started with eight types of governmental restrictions we used in the interview protocol (see question 46 in Table AII). Based on the answers from the interviewees, we inductively refined the types into the five

	Org. A	Org. B	Org. C	Org. D
Number of programs (countries of activity) at time of study	3	80	20	40
Yearly budget, in million USD	2	> 500	150	150
Government funding	55%	92%	25%	35%
Private funding and other donations	45%	8%	75%	65%
Number of international staff worldwide	> 10	> 1,000	> 500	> 300
Number of national staff worldwide	> 10	> 5,000	> 3,000	> 1,000
Type of imported goods	Equipment	General supplies and equipment	Medical supplies and equipment	Medical supplies and equipment

Table I. Characteristics of the selected case organizations

categories listed in Table II: import barriers, access barriers, control of activities, corruption and bureaucracy. We categorized each restriction identified in the interview protocols into one of these types of restrictions. Due to the limited number of occurrences of each particular restriction in a given country, we combined them into a number of restrictions per country. We acknowledge that combining all forms of government restrictions into one number is a limitation of our method, because the restrictions do not necessarily have the same effect on humanitarian organizations.

Because each case organization is not active in every country, we calculated the average number of restrictions faced in every country. We summed up the total number of restrictions reported in each country by all organizations, and divided it by the number of organizations which reported issues in this country, as shown in Equation (1). This step allowed us to make data comparable across countries, independently from the number of organizations reporting restrictions for each country:

$$\text{Average number restrictions}_c = \frac{\text{Total number restrictions}_c}{\text{Number organizations}_c} \quad (1)$$

Once we found the average number of restrictions per country, we identified characteristics of the countries that could explain these restrictions. For this, we selected a number of governmental situational factors (state fragility, democracy, political freedom and corruption) and socio-economic situational factors (Ease of Doing Business, logistics performance) in a country. We describe the process and motivation for selecting these factors in Section 5.

While the number of case organizations (four) and interviews (22) is optimal for a case study research methodology, it is by no way sufficient to allow statistical generalization (Yin, 2009), or in other words, to infer conclusions from a sample to the whole population. We therefore preferred to apply analytical generalization, where empirical observations are used to generate theory as recommend by Yin (2009). This was possible due to the theoretical sampling mechanism we applied for selecting case organizations based on their theoretical contribution rather than for statistical reasons (Eisenhardt, 1989). However, such an approach does not allow for inductive inference, as one observation does not allow to generate a theory (Popper, 1959). For this reason, we selected the deductive method of testing propositions developed by Popper (1959), which tries to falsify propositions based on empirical evidence rather than verifying them, and only if the falsification is not possible, can the theory be said to be “corroborated by past experience” (Popper, 1959). Following this approach, we aimed to invalidate the relations between the level of restrictions imposed by governments on

Type of restrictions	Examples
Import barriers	Tariffs, delays at customs clearance, extreme complexity of clearance procedures, rules of origin, ban of importation on medicines and satellite communication equipment
Access barriers	Restriction of access of staff (visa) or organization
Control of activities	Extreme governmental control of NGO activities and movement
Corruption	Bribery requested for customs clearance of humanitarian supplies, imaginary taxes created
Bureaucracy	Numerous authorizations needed, complex administrative procedures (car registration, labor law, etc.)

Table II.
Types and examples
of governmental
restrictions imposed
on humanitarian
supply chains

humanitarian supply chains and each of the governmental and socio-economic situational factors in a country. Whenever we found a country contradicting this relation, we invalidated the relation. Only relations for which we did not find contradicting evidence were considered as corroborated by our empirical experience.

4. Results

Through our case study methodology, we identified 44 occurrences of governmental restrictions experienced by our case study organizations in 18 countries. Table II lists the types of government restrictions on humanitarian supply chains we identified in our sample, as well as some examples for each of them.

Table III shows the average number of restrictions experienced by our case organizations in each country (first column), together with different situational factors that could possibly explain the number of governmental restrictions on humanitarian organizations. We show these possible relationships in our theoretical framework in Figure 1. We categorize these factors into two groups, governmental and socio-economic situational factors (see Figure 1). This categorization is based on the framework developed by Kunz and Reiner (2012). We use different indexes to measure these situational factors in each country. The scores of these indexes are all publicly available from their publishers' websites (Marshall and Jagggers, 2002; Freedom House, 2010; The World Bank, 2010, 2012; Marshall and Cole, 2011; Transparency International, 2011). We describe these indexes and how we selected them in the next section.

Given the fact that these indexes are compiled and published by various institutions and following different rules, yearly indexes may cover the previous year, the current year or the upcoming year. In order to avoid biases due to varying time periods, we decided to use the most recent figures available for each index at the time when the

Country	Average number of restrictions	Polity State Fragility 2010	Governmental factors			Socio-economic factors	
			Polity Democracy Score 2010	Freedom House Status 2010	TI Corruption Perception 2011	WB Ease of Doing Business 2012	WB Logistics Performance Index 2010
Somalia	2	25	-	Not free	1	-	1.34
Sudan	2	24	-2	Not free	1.6	135	2.21
DRC	2	23	+5	Not free	2	178	2.68
Myanmar	2.3	22	-6	Not free	1.5	-	2.33
Chad	1.8	22	-2	Not free	2	183	2.49
Ethiopia	2	21	+1	Partly free	2.7	111	2.41
Liberia	2	18	+6	Not free	3.2	151	2.38
Cameroon	1.5	16	-4	Not free	2.5	161	2.55
Pakistan	1	15	+6	Partly free	2.5	105	2.53
India	1	13	+9	Free	3.1	132	3.12
Colombia	1	12	+7	Partly free	3.4	42	2.77
Tanzania	1	12	-1	Partly free	3	127	2.60
N. Korea	1	10	-9	Not free	1	-	-
Senegal	1	9	+7	Partly free	2.9	154	2.86
Israel	1	8	+10	Free	5.8	34	3.41
Georgia	1	8	+6	Partly free	4.1	16	2.61
Russia	1	7	+4	Not free	2.4	120	2.61
Bosnia	1	5	-	Partly free	3.2	125	2.66

Table III.
Average number of restrictions per country, governmental and socio-economic situational factors

data collection was conducted in Fall, 2011. We had to remove Libya from our sample due to the regime transition in 2011, and most of the available scores did not yet reflect these changes.

5. Analysis

In this section, we analyze the relationship between the average number of restrictions imposed on humanitarian organizations and different indexes characterizing a country. We group these indexes into two categories: governmental situational factors and socio-economic situational factors. These categories are discussed in the following subsections.

5.1 Governmental situational factors

We expect governmental situational factors in a country to have an impact on the number of restrictions imposed on humanitarian organizations. These situational factors include the type of regime, the efficiency of the government or the level of corruption (Kunz and Reiner, 2012). We assess the governmental situational factors with different indexes commonly used in political sciences for characterizing governments, the Polity Democracy Score and Polity State Fragility index (Marshall and Cole, 2011), as well as the Freedom House Status (Freedom House, 2010), which are considered as the best existing indexes of the political environment covering most countries of the world each year (Howard and Roessler, 2006). We use the Corruption Perception Index (CPI) to measure the level of corruption in a country (Transparency International, 2011). In the next paragraphs we discuss the selection of each index.

According to Attack (1999), cooperation with democratic states, which accept the autonomy and independence of NGOs, is generally easier than with authoritarian states. This relationship between the level of democracy and the restrictions imposed by governments was also mentioned by respondents of our case study: "If there is a democracy, you can use the public opinion as a lever to obtain what you need. If you cannot solve a problem with the government, there are civil societies which can help you. In a non-democratic country, this is impossible" (Head of Operational Logistics, Organization C). Based on this finding from development literature and our empirical evidence, we expect governments with a lower level of democracy to be more suspicious of humanitarian organizations, and to impose more restrictions than governments with a higher level of democracy. We develop *PI* to test if the level of

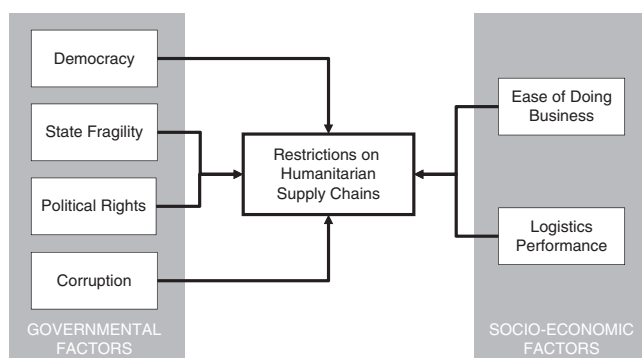


Figure 1.
Possible factors
explaining
government
restrictions on
humanitarian
supply chains

democracy in a country has an impact on the number of restrictions imposed by the government on humanitarian supply chains:

P1. The more democratic a government, the less restrictions it imposes on humanitarian supply chains.

We measure the democracy level of a government with the Polity Democracy Score, an index ranging from -10 (fully institutionalized autocracy) to +10 (fully institutionalized democracy) (Marshall and Cole, 2011). While we find evidence that autocratic (non-democratic) states such as Myanmar (-6 democracy level) tend to impose more restrictions on humanitarian supply chains (2.3 average number of restrictions), there are also countries which contradict these findings. North Korea is, for example, considered as strongly autocratic (-9 democracy level) but shows a relatively low average level of restrictions (one restriction). On the other hand, rather democratic governments such as Liberia (+6 democracy level) or the Democratic Republic of the Congo (+5 democracy level) impose high level of governmental restrictions on humanitarian supply chains (two restrictions). Due to these contradicting observations we reject this proposition.

We expect the fragility of a government to have an impact on the level of restrictions it imposes. This was also mentioned by a respondent, who believes that governments impose restrictions on humanitarian organizations because they want to “keep the control, as the country is politically not very stable” (Logistics Coordinator Chad, Organization C). Based on this, we develop *P2* to test if the fragility of the government in a country explains the number of restrictions it imposes on humanitarian supply chains:

P2. The more fragile a government, the more restrictions it will impose on humanitarian supply chains.

We test the fragility of a government with the Polity State Fragility index (Marshall and Cole, 2011). According to this index, which ranges from 0 (no fragility) to 25 (extreme fragility), state fragility is defined as a combination of state effectiveness and state legitimacy (Marshall and Cole, 2008). When comparing the Polity State Fragility scores for each country with the average number of restrictions (see Figure 2), we see that fragile states clearly impose more restrictions on humanitarian supply chains than states with lower fragility scores. The gray line in Figure 2 depicts this tendency. In order to test this proposition, we identify countries in the sample that diverge from this pattern. There is no country with a fragility score of over 20 with fewer than 1.8 restrictions. Also, no country with a fragility score equal to or lower than 15 imposes more than one restriction.

Based on the absence of contradictory evidence, we cannot reject this proposition. This allows us to conclude that in our sample of countries, fragile states (i.e. low effectiveness and legitimacy) tend to impose more restrictions on humanitarian supply chains than states which are less fragile. In other words, the more ineffective and illegitimate a government is, the more it tends to impose restrictions on humanitarian supply chains on its territory. All case organizations confirmed this high level of control and restrictions in fragile states (e.g. ban of import of satellite communication equipment, authorization required for internal travels and complex customs clearance procedures).

Next, we test if a government that does not give much rights and freedom to its citizens would impose more restrictions on humanitarian organizations. We develop *P3*, in which we compare the level of political rights and civil liberties in a country with the number of restrictions imposed on humanitarian organizations:

P3. The more political rights and civil liberties a government provides to its population, the less restriction it will impose on humanitarian supply chains.

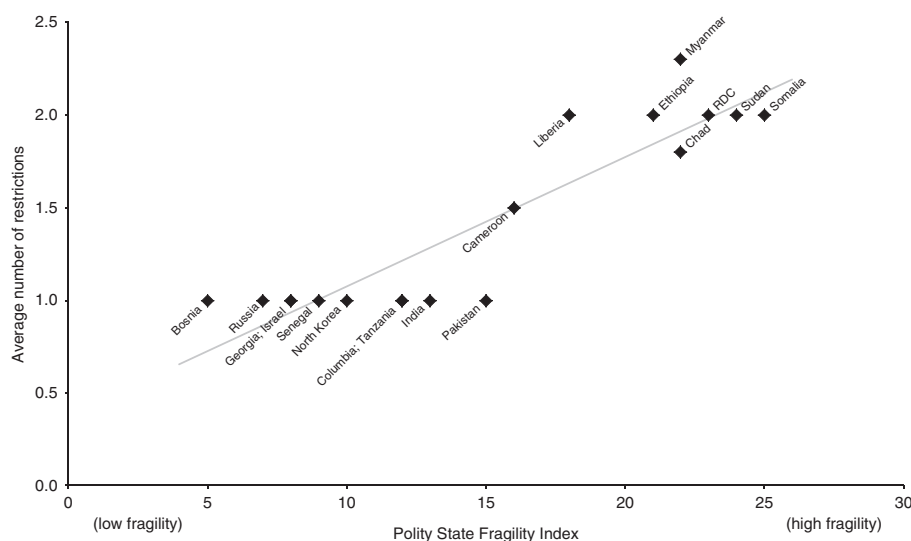


Figure 2.
Average number of
restrictions and
state fragility
indexes of countries

The Freedom House Status is an indication of the level of political rights and civil liberties citizens have in a country (Freedom House, 2010). It can be either not free, partly free or free. When testing the relationship based on our sample, we find that countries imposing a high level of restrictions on humanitarian supply chains are generally categorized as not free. However, the case of North Korea (not free, one restriction) and Ethiopia (partly free, two restrictions) contradict this pattern. Therefore we reject this proposition.

Several respondents mentioned a strong link between corruption in a country and the level of restrictions imposed on humanitarian supply chains: “sometimes customs invents taxes, which are in the end corruption” (Head of Operational Logistics, Organization C). The restrictions are not always directly imposed by the government, but by governmental employees who “are not well paid, and try to get additional revenue through corruption” (Logistics Manager Chad, Organization B). In order to test the suggestion that the level of corruption in a country explains the number of restrictions it imposes on humanitarian supply chains, we develop *P4*:

P4. The higher the level of corruption in a country, the more restrictions the government will impose on humanitarian supply chains.

We test this proposition with the Corruption Perception Index (CPI) developed by Transparency International (2011). This index describes the perceived corruption level in a country, ranging from 0 (country perceived as highly corrupt) to 10 (country perceived as very clean). While all countries imposing more than one restriction on humanitarian supply chains have a high level of perceived corruption (i.e. CPI between 1 and 3.2), there are also examples such as North Korea or Pakistan which contradict this relationship, as they are considered to be highly corrupt, but only impose one restriction on average. Based on this contradictory evidence, we reject this proposition.

5.2 Socio-economic situational factors

We expected the socio-economic environment in a country to have an impact on the level of restrictions imposed by governments on humanitarian supply chains.

In particular, we focus on the economic environment because some of the restrictions imposed on humanitarian supply chains also apply to businesses. Governments may, for example, impose restrictions because they want to “legitimately protect their population, for example by restricting the importation of GMO food” (Head of Sector Logistics, Central and Southern Africa, Organization B). Similarly, governments may impose restrictions on imports because they want to “protect their own industries or monopolies” (Logistics Director, Organization C). Such restrictions apply to humanitarian and commercial organizations alike, which indicates a possible link between the business regulatory environment in a country and the level of restrictions imposed on humanitarian supply chains. We develop *P5* to test this relationship:

P5. The more conducive the regulatory environment is to start and operate a local firm, the less restrictions the government will impose on humanitarian supply chains.

We evaluate the business regulatory environment in the different countries based on the Ease of Doing Business index published by The World Bank (2012). This index ranks 183 countries according to how favorable their regulatory environment is for starting and operating a business. We find some evidence that the business regulatory environment could explain the level of restrictions imposed on humanitarian supply chains, but there are countries which contradict this pattern. Ethiopia, for example, imposes two restrictions on humanitarian supply chains, but is ranked significantly better on the business regulatory environment (rank 111) than Senegal which imposes only one restriction (rank 154). If this proposition was always true, a country ranking high on the Ease of Doing Business index (i.e. difficult business regulatory environment) would always impose more restrictions than a country ranking low on the Ease of Doing Business index. Based on the contradicting pattern we identify for Senegal and Ethiopia, we reject this proposition.

As several restrictions imposed by governments on humanitarian organizations are related to the import process and transportation inside the country, a leading researcher in the field of humanitarian logistics who read an earlier version of this manuscript suggested that the level of restrictions imposed by a government on humanitarian supply chains may be related to the logistics performance prevailing in this country. This is confirmed by several respondents who mention low logistics performance in some countries due to the number and complexity of required import documents: “import procedures are usually very complex, as you really have to know where to find the specific documents” (Supply Chain Manager, Organization A). In Ethiopia, for example, “extremely high numbers of documents are requested for the import process” (Desk Officer Africa, Organization D). In order to test if the logistics performance in a country explains the level of restrictions imposed on humanitarian supply chains, we develop *P6*:

P6. The higher the logistics performance in a country, the less restrictions the government will impose on humanitarian supply chains.

We test this proposition with the Logistics Performance Index published by The World Bank (2010). This index rates 155 countries from 1 (worst performance) to 5 (best performance) based on different components such as customs clearance, timeliness, logistics competence (The World Bank, 2010). We find a relationship between the logistic performance in a country and the level of restrictions imposed on humanitarian supply chains. However, there are countries with similar levels of logistics performance

(e.g. Pakistan, Cameroon, Chad, all around 2.5) showing different levels of restrictions imposed on humanitarian organizations (e.g. 1, 1.5 and 1.8). We reject this proposition based on this reason.

6. Discussion

We have tried to identify which characteristics of a country explain the level of restrictions its government imposes on humanitarian supply chains. We tested a number of governmental situational factors, such as the level of democracy, the state fragility level, the political freedom level or the level of corruption. We also tested two socio-economic situational factors, the business regulatory environment and the logistics performance in a country.

While all characteristics we tested showed some links with the level of restrictions imposed on humanitarian supply chains in different countries, we also found contradicting examples for many of them. Following the approach suggested by Popper (1959), and because our relatively small sample size would not be sufficient to generate statistical inference, we invalidated all relationships for which we found contradicting examples. The invalidation of propositions based on single examples is a very strict approach, and we do not pretend that it is the correct method in every situation. We opted for this conservative and cautious approach in order to guard against possible criticism regarding the limited sample size (18 countries), and to increase the validity of our findings.

The only relationship we could not invalidate based on our sample was the link between the number of restrictions and state fragility, a combination of the effectiveness and legitimacy of a government. This means that the more ineffective and illegitimate a government is, the more it tends to impose restrictions on humanitarian supply chains. This behavior can be explained by the fact that such governments face a higher risk of being overthrown, resulting in fears that autonomous international organizations will challenge their political control (Coston, 1998). As a consequence, fragile governments impose stronger controls on the activities of humanitarian organizations. This is confirmed by Bratton (1989) who found that a government with a low political legitimacy tends to be less permissive toward the voluntary sector. According to this author, such governments often control humanitarian organizations through multiple tools (registration of NGOs, customs clearance and security clearance) and different government units.

In order to understand the reasons why a fragile government would impose more restrictions on humanitarian supply chains, we went back to the interview transcripts. We identified several instances of government restrictions that confirm this link. A frequent restriction encountered is related to the import of communication equipment: "Satellite phones are banned in several countries. The government fears that we communicate information about what is going on in the country to the rest of the world. This is certainly the motivation of governments to set restrictions on communication equipment" (Head of Operational Logistics, Organization C). Another respondent confirmed this: "In Ethiopia, there is an interdiction to import satellite phones and satellite internet equipment. Radio equipment is highly regulated" (Africa Desk Officer, Organization D). The restrictions on communication equipment can be explained by the government's fears that information is shared publicly, which is typical for fragile governments. Indeed, a government with low legitimacy risks to be overthrown if the public learns about the government's inefficiencies. This risk is lower for a highly legitimate and efficient government, hence the lower restrictions on humanitarian organizations.

Our interviews confirm that fragile governments have a desire to control what happens in the country: “The government [Chad, high State Fragility Index] wants to control who enters and works in the country” (Logistics Assistant Chad, Organization B). One respondent mentioned that the government imposes restrictions because it wants to “keep the control, as the country is politically not very stable” (Logistics Coordinator Chad, Organization C). Another respondent said that restrictions are imposed based on a “political motivation, because the government fears to lose control over a part of the territory or a population” (Head of Supply, Organization C). In some cases, there is “paranoia of the government towards NGOs. There is a willingness to control activities” (Africa Desk Officer, Organization D). Controlling activities of non-governmental entities allows fragile governments to identify potential challengers to its power.

The five other propositions we tested were invalidated. Based on the methodological approach we selected, it is not possible to draw reliable conclusions about these propositions. Indeed, invalidating a proposition based on contradicting examples does not guarantee that this proposition is always false. There is, however, an interesting finding about the invalidated propositions. Several of the contradicting examples are from one country, North Korea. With the highest scores on several indexes, one would expect this country to impose a high number of restrictions on humanitarian supply chains. However, our data indicates that it imposes only one restriction on average. This may be explained by the fact that this autocratic government has such a strong control over its population that it does not feel threatened by humanitarian organizations. Further research could investigate the reasons explaining the comparatively low level of restrictions imposed by this country.

7. Implications

7.1 *Implications for research*

Our paper has a number of implications for research. First, it develops propositions that can be further tested through other research methods. The propositions we invalidated based on contradicting examples could be tested with empirical data from a survey in order to verify if a statistical generalization would lead to the same result. Second, our finding that the government fragility explains the level of restrictions in a country could be further tested through a survey on a larger sample of countries. Third, the fact that state fragility has an impact on the level of restrictions imposed on humanitarian organizations is useful for other studies that compare programs of humanitarian organizations with characteristics of the host government. This finding can also be useful for researchers analyzing commercial supply chains in developing countries.

7.2 *Implications for practice*

Our paper provides multiple managerial implications for humanitarian organizations. Knowing that fragile states tend to impose more restrictions on humanitarian supply chains helps humanitarian organizations to better prepare before entering a new country. They can anticipate the fears of the local government and take proactive steps to address them.

The state fragility index is composed of two components, government legitimacy and government efficiency. A closer look at these components allows us to derive interesting implications of our research. A fragile government feels threatened by humanitarian organizations which might question its legitimacy. A humanitarian organization entering a country with a lack of government legitimacy has to clarify the

objective of its work, namely, to help beneficiaries and not to take a position against the government. It should meet with key stakeholders at the government level, and present its activities and objectives. This will defuse possible doubts of the government about the political neutrality of the organization and its intended objectives of working in the country. The organization has also to be extremely careful when dealing with institutions or people from the opposition, since the government could feel threatened by this. The humanitarian organization also needs to be careful not to publicly criticize the government. Finally, a humanitarian organization working in such countries should not engage in advocacy activities, which could reinforce the fears of the government. This is obviously not to say that advocacy activities are wrong, but a humanitarian organization involved in operational activities (e.g. providing supplies to beneficiaries) might be extremely restrained if it engages in advocacy activities as well.

The low efficiency of the government is another component of the state fragility index. A humanitarian organization helping the population of a country with a fragile government might be seen as a source of competition by the inefficient government. The humanitarian organization should therefore be careful in how it presents its work, and avoid criticism about the inaction or poor efficiency of the government. Demonstrating a desire to complement the government's efforts, working in collaboration with the government, training government workers are ways to get the work done while working with the government.

In addition to the implications discussed above, our findings also lead to a number of operational implications for the humanitarian logistician. When facing a fragile government, we suggest that the logistician tries to implement pre-clearance procedures, in which the customs clearance process is handled before the physical delivery of the goods. Doing so gives the government confidence about the organization's openness and willingness to respect the government's procedures. Procuring relief supplies locally when possible is another way for a humanitarian organization to demonstrate its willingness to work with and contribute to the country's economy. Finally, partnering with a well-regarded local organization for in-country logistics will also address possible fears of the government.

Our results show that five of the six propositions could not be validated. It is impossible to develop implications on the five propositions that we refuted, because a lack of validation does not necessarily mean that the tested relation is always wrong. We can, for example, not safely state that the level of corruption is not linked with the level of government restrictions on humanitarian supply chains. It often is, but there are exceptions.

Our findings also have implications for commercial supply chain management, for example, for companies starting to do business in a new country. In addition to the usual measures of the business regulatory environment (e.g. the World Bank's Ease of Doing Business), companies should also consider the fragility of the government as an important criteria. When entering a country with a fragile government, the company can expect to face a number of restrictions, and has to work proactively with the government in demonstrating its neutrality and willingness to help.

8. Conclusion

The influence of governmental restrictions on humanitarian supply chains has been mentioned by several authors so far, but was never analyzed specifically in academic literature, despite its practical relevance. This paper intends to fill this gap. In particular, we identified the characteristics of governments which explain the level of

restrictions imposed on humanitarian supply chains. In order to do so, we tested several governmental situational factors and socio-economic situational factors of countries. While each of the indexes we tested explained the level of restrictions to some extent, we found countries contradicting this relationship for all but one index. We found that state fragility, a combination of government ineffectiveness and illegitimacy, is the only characteristic which explains the level of restrictions imposed on humanitarian supply chains in each of the 18 countries in our sample. Based on this finding, we can state that the more fragile a government is, the more restrictions it will impose on humanitarian organizations. Not a single country deviated from this pattern in our sample. This proposition is therefore “corroborated by past experience” (Popper, 1959).

This paper has a number of limitations. First, the small sample size limits the generalizability of our findings. We overcome this limitation by using a method borrowed from qualitative research, namely, the falsification of propositions instead of statistical generalization. Second, while the transformation of qualitative data (examples of restrictions mentioned by respondents during interviews) into quantitative data (average number of restrictions per country) is supported by literature (e.g. Patton, 2002), it involves a loss of depth of data. Doing so, we consider each type of restriction having the same importance, which is not necessarily the case. Also, collecting data through a structured interview protocol does not guarantee that all restrictions occurring in each program have been mentioned, as respondents are biased toward the experiences which had the highest impact on them. We reduced this bias by interviewing at least five staff members in each organization, and by requesting respondent validation at different steps of the research process. Moreover, when collecting data on complex issues such as government restrictions, there is always a high degree of respondent subjectivity involved. Finally, because we did only ask interviewees to mention countries in which they encountered restrictions, we did not consider countries with no mention of restrictions in our analysis. Further research could overcome this limitation by asking specifically about the number of restrictions encountered in each of a set of countries, through a survey, for example. This would allow including also countries without restrictions in the sample.

Note

1. The decision to focus on Chad came from the need to compare the four organizations in the same country (for another paper using this case study data).

References

- Abbey, E.M. (2008), “Constructive regulation of non-government organizations”, *The Quarterly Review of Economics and Finance*, Vol. 48 No. 2, pp. 370-376.
- Abuzeid, F. (2009), “Foreign aid and the ‘big push’ theory: lessons from Sub-Saharan Africa”, *Stanford Journal of International Relations*, Vol. 11 No. 1, pp. 16-23.
- Akhtar, P., Marr, N.E. and Garnevskaja, E.V. (2012), “Coordination in humanitarian relief chains: chain coordinators”, *Journal of Humanitarian Logistics and Supply Chain Management*, Vol. 2 No. 1, pp. 85-103.
- Altay, N. (2008), “Issues in disaster relief logistics”, in Gad-el-Hak, M. (Ed.), *Large-Scale Disasters: Prediction, Control and Mitigation*, Cambridge University Press, Cambridge, pp. 120-146.

- Atack, I. (1999), "Four criteria of development NGO legitimacy", *World Development*, Vol. 27 No. 5, pp. 855-864.
- Balcik, B., Beamon, B.M., Krejci, C.C., Muramatsu, K.M. and Ramirez, M. (2010), "Coordination in humanitarian relief chains: practices, challenges and opportunities", *International Journal of Production Economics*, Vol. 126 No. 1, pp. 22-34.
- Bennett, J. (2003), "Food aid logistics and the Southern Africa emergency", *Forced Migration Review*, Vol. 18 No. 5, pp. 28-31.
- Bratton, M. (1989), "The politics of government-NGO relations in Africa", *World Development*, Vol. 17 No. 4, pp. 569-587.
- Chang, Y., Wilkinson, S., Seville, E. and Potangaroa, R. (2010), "Resourcing for a resilient post-disaster reconstruction environment", *International Journal of Disaster Resilience in the Built Environment*, Vol. 1 No. 1, pp. 65-83.
- Coston, J.M. (1998), "A model and typology of government-NGO relationships", *Nonprofit and Voluntary Sector Quarterly*, Vol. 27 No. 3, pp. 358-382.
- Davarzani, H., Farahani, R.Z. and Rahmandad, H. (2015), "Understanding econo-political risks: impact of sanctions on an automotive supply chain", *International Journal of Operations & Production Management*, Vol. 35 No. 11, pp. 1567-1591.
- Day, J.M., Melnyk, S.A., Larson, P.D., Davis, E.W. and Whybark, D.C. (2012), "Humanitarian and disaster relief supply chains: a matter of life and death", *Journal of Supply Chain Management*, Vol. 48 No. 2, pp. 21-36.
- Eisenhardt, K.M. (1989), "Building theories from case study research", *Academy of Management Review*, Vol. 14 No. 4, pp. 532-550.
- Freedom House (2010), *Freedom in the World 2010*, Freedom House, Washington, DC, available at: www.freedomhouse.org/template.cfm?page=363&year=2011
- Holguín-Veras, J., Jaller, M., Van Wassenhove, L.N., Pérez, N. and Wachtendorf, T. (2012), "On the unique features of post-disaster humanitarian logistics", *Journal of Operations Management*, Vol. 30 Nos 7-8, pp. 494-506.
- Howard, M.M. and Roessler, P.G. (2006), "Liberalizing electoral outcomes in competitive authoritarian regimes", *American Journal of Political Science*, Vol. 50 No. 2, pp. 365-381.
- Kamann, D.-J. and Van Nieulande, V. (2010), "A four-filter method for outsourcing to low-cost countries", *Journal of Supply Chain Management*, Vol. 46 No. 2, pp. 64-79.
- Kovács, G. and Spens, K.M. (2007), "Humanitarian logistics in disaster relief operations", *International Journal of Physical Distribution & Logistics Management*, Vol. 37 No. 2, pp. 99-114.
- Kovács, G. and Spens, K.M. (2009), "Identifying challenges in humanitarian logistics", *International Journal of Physical Distribution & Logistics Management*, Vol. 39 No. 6, pp. 506-528.
- Kovács, G. and Spens, K.M. (2011), "Trends and developments in humanitarian logistics – a gap analysis", *International Journal of Physical Distribution & Logistics Management*, Vol. 41 No. 1, pp. 32-45.
- Kunz, N. and Gold, S. (2015), "Sustainable humanitarian supply chain management – exploring new theory", *International Journal of Logistics Research and Applications*, pp. 1-20, available at: <http://dx.doi.org/10.1080/13675567.2015.1103845>
- Kunz, N. and Reiner, G. (2012), "A meta-analysis of humanitarian logistics research", *Journal of Humanitarian Logistics and Supply Chain Management*, Vol. 2 No. 2, pp. 116-147.
- Kunz, N., Reiner, G. and Gold, S. (2014), "Investing in disaster management capabilities versus pre-positioning inventory: a new approach to disaster preparedness", *International Journal of Production Economics*, Vol. 157, November, pp. 261-272, available at: www.sciencedirect.com/science/article/pii/S0925527313004611

- L'Hermitte, C., Tatham, P. and Bowles, M. (2014), "Classifying logistics-relevant disasters: conceptual model and empirical illustration", *Journal of Humanitarian Logistics and Supply Chain Management*, Vol. 4 No. 2, pp. 155-178.
- Long, D.C. and Wood, D.F. (1995), "The logistics of famine relief", *Journal of Business Logistics*, Vol. 16 No. 1, pp. 213-229.
- Mann, C.L. (2012), "Supply chain logistics, trade facilitation and international trade: a macroeconomic policy view", *Journal of Supply Chain Management*, Vol. 48 No. 3, pp. 7-14.
- Marshall, M. and Cole, B. (2008), "Global report on conflict, governance and state fragility 2008", *Foreign Policy Bulletin*, Vol. 18 No. 1, pp. 3-21.
- Marshall, M. and Cole, B. (2011), "Global report 2011", Conflict, Governance and State Fragility, Polity IV Project, Center for Systemic Peace, Vienna and VA, available at: www.systemicpeace.org/vlibrary/GlobalReport2011.pdf
- Marshall, M. and Jagers, K. (2002), *Polity IV Project: Political Regime Characteristics and Transitions*, Center for Global Policy, George Mason University, Arlington, VA, available at: www.systemicpeace.org/polity/polity4.htm
- Maxwell, D., Bailey, S., Harvey, P., Walker, P., Sharbatke-Church, C. and Savage, K. (2012), "Preventing corruption in humanitarian assistance: perceptions, gaps and challenges", *Disasters*, Vol. 36 No. 1, pp. 140-160.
- Menkhaus, K. (2012), "No access: critical bottlenecks in the 2011 Somali famine", *Global Food Security*, Vol. 1 No. 1, pp. 29-35.
- Meredith, J. (1998), "Building operations management theory through case and field research", *Journal of Operations Management*, Vol. 16 No. 4, pp. 441-454.
- Merminod, N., Nollet, J. and Pache, G. (2014), "Streamlining humanitarian and peacekeeping supply chains: anticipation capability for higher responsiveness", *Society and Business Review*, Vol. 9 No. 1, pp. 4-22.
- Murray, S. (2005), "How to deliver on the promises", *Financial Times*, January 7, p. 9.
- Patton, M.Q. (2002), *Qualitative Research and Evaluation Methods*, Sage, Thousand Oaks, CA.
- Pedraza-Martinez, A.J. and Van Wassenhove, L.N. (2013), "Vehicle replacement in the international committee of the red cross", *Production and Operations Management*, Vol. 22 No. 2, pp. 365-376.
- Popper, K. (1959), *The Logic of Scientific Discovery*, Hutchinson, Tübingen.
- Richardson, D.A., de Leeuw, S. and Dullaert, W. (2016), "Factors affecting global inventory prepositioning locations in humanitarian operations – a Delphi study", *Journal of Business Logistics*, Vol. 37 No. 1, pp. 59-74.
- Roth, A.V., Tsay, A.A., Pullman, M.E. and Gray, J.V. (2008), "Unraveling the food supply chain: strategic insights from China and the 2007 recalls", *Journal of Supply Chain Management*, Vol. 44 No. 1, pp. 22-39.
- Sanderson, J. (2001), "The impact of regulation on buyer and supplier power", *Journal of Supply Chain Management*, Vol. 37 No. 2, pp. 16-21.
- Schodl, R., Kunz, N., Reiner, G. and Santos, G.G. (2010), "Improving business processes with rapid modeling: the case of Digger", in Reiner, G. (Ed.), *Rapid Modelling and Quick Response*, Springer, London, pp. 77-87.
- Schultz, J. and Søreide, T. (2008), "Corruption in emergency procurement", *Disasters*, Vol. 32 No. 4, pp. 516-536.
- Seekins, D.M. (2009), "State, society and natural disaster: cyclone Nargis in Myanmar (Burma)", *Asian Journal of Social Science*, Vol. 37 No. 5, pp. 717-737.

- Stuart, I., McCutcheon, D., Handfield, R., McLachlin, R. and Samson, D. (2002), "Effective case research in operations management: a process perspective", *Journal of Operations Management*, Vol. 20 No. 5, pp. 419-433.
- The World Bank (2010), *Logistics Performance Index*, The World Bank, Washington, DC, available at: www1.worldbank.org/PREM/LPI/tradesurvey/modelb.asp
- The World Bank (2012), *Doing Business Database*, The World Bank, Washington, DC.
- Tomasini, R.M. and Van Wassenhove, L.N. (2003), *Coordinating Disaster Logistics After El Salvador's Earthquakes Using SUMAS's Humanitarian Supply Management System*, INSEAD, Fontainebleau, available at: www.fritzinstitute.org/PDFs/Case-Studies/OT18Z2-CDL_ElSalvador.pdf
- Transparency International (2011), "Corruption perception index", available at: www.transparency.org/cpi2011 (accessed March 26, 2013).
- Van Wassenhove, L.N. (2006), "Blackett memorial lecture humanitarian aid logistics: supply chain management in high gear", *Journal of the Operational Research Society*, Vol. 57 No. 5, pp. 475-489.
- Voss, C., Tsikriktsis, N. and Frohlich, M. (2002), "Case research in operations management", *International Journal of Operations and Production Management*, Vol. 22 No. 2, pp. 195-219.
- Wang, Y., Gilland, W. and Tomlin, B. (2011), "Regulatory trade risk and supply chain strategy", *Production and Operations Management*, Vol. 20 No. 4, pp. 522-540.
- Yin, R.K. (2009), *Case Study Research: Design and Methods*, Sage, Thousand Oaks, CA.

Appendix 1

Organization	Position	Level
A	Administrative director	HQ
A	CEO	HQ
A	Institutional advisor	HQ
A	Supply chain manager	HQ
A	Program manager	Field
A	Technical field manager	Field
B	Head of sector logistics, Central and Southern Africa	HQ
B	Head of sector logistics, East and Central Asia	HQ
B	Logistics assistant import-export	Field
B	Deputy head of delegation	Field
B	Logistics manager	Field
C	Coordinator procurement unit	HQ
C	Head of operational logistics	HQ
C	Head of supply	HQ
C	Logistics director	HQ
C	Logistics coordinator	Field
C	Finance coordinator	Field
D	Africa desk officer	HQ
D	Head of logistics services	HQ
D	General coordinator	Field
D	Logistician	Field
D	Logistics assistant	Field

Note: Adapted from Kunz and Gold (2015)

Table AI.
List of interviews

General questions

- 1 Code
- 2 Start time
- 3 What is your position in the organization?
- 4 What responsibilities are involved in this position?
- 5 Since when are you in this position?
- 6 Since when are you working for this organization?
- A8 a. When was your organization founded?
- A10 a. Can you shortly describe the activities of your NGO?
- A11 a. In which phase of disaster do you usually operate? [*Preparation/Response/Recovery*]
- A12 a. In which context of operation is your organization operating in general? [*Disaster relief/Development aid*]
- A13 a. In what type of disasters is your organization operating in general? [*Natural disaster/Man-made disaster*]
- A14 a. What is the size of you NGO, in terms of yearly budget and staff (national+international worldwide)
- B7 b. Country of operation
- B8 b. Operation ongoing in this country since
- B9 b. Name of your project
- B10 b. Can you shortly describe the activities of your project?
- B11 b. In which phase of disaster does your current operation work? [*Preparation/Response/Recovery*]
- B12 b. In which context of operation is your current operation working? [*Disaster relief/Development aid*]
- B13 b. In what type of disasters is your current operation working? [*Natural disaster/Man-made disaster*]
- B14 b. What is the size of you operation, in terms of yearly budget and staff? (national +international worldwide)

Donations

- A15/B15 What are the sources of funding of your (a) organization/(b) operation? Which type of donors do you have? What is the approximate percentage for each type of donor?
- 16 Do you have any partnerships with donors, which guarantee you a safe and constant funding for your long-term activities? If yes, who are these?
- A17/B17 What is the yearly amount of donations received by (a) your organization/(b) your operation?

Performance

- A18 a. How would you define the performance of your NGO (i.e. explain what it is for you to be performing well as organization)? How can it be measured?
- A19 a. How would you rate the performance of your NGO on average over all programs, in comparison with best in class organization?
- A20 a. Can you tell us which organizations you consider as best in class?
- B18 b. How would you define the performance of your operation (i.e. explain what it is for you to be performing well as an organization in an operation)? Can it be measured?
- B19 b. How would you rate the performance of your current operation, in comparison with best in class operations (either from your own organization or others)?
- B20 b. Can you tell us which operation/organization you consider as best in class?
- 27 What part of your performance is due to controlled reasons (e.g. processes, management, structure) and what percent is rather uncontrolled (e.g. good staff, opportunities, context, etc.)?

Table AII.
Structured interview
protocol

(continued)

NGO/resources

A21/B21 In your opinion, how would you rate [1-5] the number of resources you have in your (a) organization/(b) operation in terms of:

- Finances
- Staff
- IT equipment
- Vehicles
- Buildings/physical infrastructure
- Other resources with strong impact?

A22/B22 In general, do you feel that you have less, same level, or more resources than most other NGOs in (a) your field/(b) this country?

A23/B23 In your opinion, how would you rate [1-6] the quality of the resources you have in your (a) organization/(b) operation in terms of:

- Staff
- IT equipment
- Vehicles
- Buildings/physical infrastructure
- Other resources with strong impact?

A24/B24 In general, do you feel that you have lower quality, same quality or better quality of resources than most other NGOs in (a) your field/(b) this country?

NGO/logistics processes

28 Does your NGO use formal logistical processes, and if yes, which one?

29 Are these processes documented?

30 Are these processes regularly updated?

31 Are these processes designed at the HQ level or the program level?

32 How would you rate the number of your logistic processes? [1 (*insufficient*), 3 (*adequate*), 5 (*too many*)]

33 How would you rate the quality of your logistics processes? [1 (*inadequate*), 2 (*basic*), 3 (*acceptable*), 4 (*satisfactory*), 5 (*adequate*)]

Beneficiaries

34 Do you personally know the needs of the beneficiaries of your operation(s)? If yes, what are these needs?

35 How does your organization usually assess the needs of the beneficiaries?

Fit NGO↔beneficiaries

36 To which degree do you think does your NGO meet the needs of the beneficiaries?

[1 (*poorly*), 2 (*basically*), 3 (*acceptable*), 4 (*satisfactory*), 5 (*adequate*)]

Why?

Governmental factors

A40/B40 How many people per operation are in contact with the local government (a) on average/(b) in your operation

41 What are the exact functions of these people?

42 Are you personally in contact with local government(s)? If yes, in what kind of situations?

43 What are the most difficult aspects in your personal contacts with governments?

44 How many times per week/month does a staff of your organization meet with people of the government?

45 How strong do the following governmental influences affect your operations? [1 (*no impact at all*), 2 (*weakly*), 3 (*medium*), 4 (*strongly*), 5 (*very strong impact*)]

Can you explain why?

- Import barriers

(continued)

Table AII.

	Corruption
	Bureaucracy
	Control of your activities
	Taxation
	Visa issues
	Labor law
	Other legal requirements
46	How would you evaluate the effect of each of these governmental influences on your NGO, the beneficiaries, the government? [N: Negative/X: Neutral/P: Positive]:
	Import barriers
	Corruption
	Bureaucracy
	Control of your activities
	Taxation
	Visa issues
	Labor law
	Other legal requirements
47	Do you see other governmental influences which have a NEGATIVE impact on your ability to satisfy the needs of the beneficiaries?
	If yes, which one? How do they limit your organization's ability to conduct your operations and to answer to the beneficiaries' needs?
48	Do you see other governmental influences which have a POSITIVE impact on your operations, and thus increase your ability to meet the beneficiaries' needs?
	If yes, which one? How do they increase your organization's ability to conduct your operations?
	<i>Import barriers</i>
49	Did you ever experience any entrance barriers/import barriers in your current program(s)? [yes – no] (a) In which countries?
	ban for NGO to enter country
	ban for staff to enter country
	customs tariffs
	complex customs clearance procedures
	administrative barriers such as special document requirements
	interdiction to import specific equipment
	others, please describe and give country
50	What do you think is the motivation of the government to impose import barriers?
51	Did your organization find ways to by-pass import barriers, and if yes, how?
52	Does your NGO have any policy or processes which define how to deal with these problems?
53	Is there a particular staff in your program(s) which is in charge of dealing with the import procedures?
54	If yes, what is his/her title? What are his/her tasks? What type of employee is he/she (national/international? Level in hierarchy?)
56	Do you feel that commercial logistics providers face fewer troubles to import material in the country than NGOs? If yes, why?
	<i>Impact of import barriers</i>
59	How would you rate the impact of import barriers on your operations
	Effectiveness: conducting the operation [1 (no impact at all), 2 (weak), 3 (moderate), 4 (strong), 5 (very strong impact)]
	Efficiency: cost [1 (no impact at all), 2 (weak), 3 (moderate), 4 (strong), 5 (very strong impact)]
	Can you estimate the additional cost of import barriers to your organization? In % of budget or CHF
	Delays [1 (no impact at all), 2 (weak), 3 (moderate), 4 (strong), 5 (very strong impact)]

Table AII.

(continued)

-
- Can you estimate the time you lost in your operation, due to import barriers? In month compared to a setting with no import procedure at all (i.e. time between equipment physically present at border until available for use in-country)
- 60 Do import barrier affect the ability of your organization to fulfill needs of the beneficiaries? If yes, how?
- 61 What are the best ways your organization found to reduce the impact of import barriers on your operations?
- 62 In your opinion, do import barriers have a POSITIVE impact on one or more of the following? [*yes – no*] If yes, why?
- On your operation
 - On the country's economy
 - On the government
 - On particular staff of government
 - On other stakeholders?
- 63 Does the ban of re-exporting equipment influence the choices of your organization during the project setup? (purchase, etc.)
If yes, in which way?

Economic and social environment

- 64 For which services/procurement does your NGO work with local companies?
- 65 What are the benefits/problems of working with local companies?

Other situational factors

- 66 How strong do these factors affect your operations: [*1 (no impact at all), 2 (weak), 3 (moderate), 4 (strong), 5 (very strong impact)*]:
- Economic and social environment
 - Government
 - Infrastructure
 - Disaster and environmental
- 67 Are there additional situational factors which have not yet been discussed, and which have a significant impact on your ability to meet the beneficiaries' needs? If yes, which are these and how do they affect your operations? [*1 (no impact at all), 2 (weak), 3 (moderate), 4 (strong), 5 (very strong impact)*]

Notes: a, refers to questions asked only at headquarters; b, refers to questions asked only at the project/program level in Chad

Table AII.

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