



JÖNKÖPING UNIVERSITY

DiVA 

Institutional repository of
Jönköping University

<http://www.publ.hj.se/diva>

This is an author produced version of a paper published in *Journal of Humanitarian Logistics and Supply Chain Management*. This paper has been peer-reviewed but does not include the final publisher proof-corrections or journal pagination.

Citation for the published paper:

Jensen, L-M. (2012). Humanitarian cluster leads: lessons from 4PLs. *Journal of Humanitarian Logistics and Supply Chain Management*, 2(2), 148-160

DOI: <http://dx.doi.org/10.1108/20426741211260732>

Access to the published version may require subscription.
Published with permission from: Emerald

1 Introduction

In recent years there have been several efforts to improve the overall structure and effectiveness of humanitarian aid (Steets et al., 2010). Indeed “coordination is the Holy Grail of disaster response” (Boin et al., 2010, p.4.). One important component of these efforts is the “humanitarian cluster system¹” grouping together organizations in areas such as water and sanitation, camp management, and logistics. The purpose of this reorganization has been to deal with a set of coordination issues including overlapping provision of relief and unclear responsibility for at risk populations. Each humanitarian cluster has been assigned a global cluster lead. The set of responsibilities for the cluster lead has been clearly listed, but the ways in which those responsibilities should be handled are less obvious. That is, given the constraints inherent in the humanitarian system, how is the global cluster lead intended to fulfill its responsibilities in a setting with many independent organizations that often object to being directed?

This paper suggests that the concept of a fourth-party logistics provider (4PL) can usefully be employed for a discussion of how the Logistics Cluster lead in particular can balance the need for coordination with the need to achieve buy-in from the various organizations involved in humanitarian relief.

The purpose of the paper is to deal with the question: “How can we apply lessons from 4PL providers to the cluster leads’ challenges in the humanitarian system?” To answer this question the article starts with a description of the humanitarian cluster system itself, and then to ties this to a review of the literature on 4PL.

2 Method

Since this paper asks what relevance the 4PL literature has to the cluster system it is important to explore both. The 4PL literature is covered in the theoretical framework consisting of previous lessons and a brief discussion of different 4PL concepts. This section (section 4) comprises the theoretical underpinnings of the paper. The empirical section consists of a case study of the development of the cluster system and has a twofold purpose. One is to provide the reader with a brief description of the cluster system and more specifically the Logistics Cluster as a background. This reflects the top-down way in which the system was originally defined, with a set of guidance documents to outline the system overall. This part of the empirical description is largely based on official documentation and should be considered a brief summary of the main aspects of the cluster system. The second purpose of the

¹ Sometimes referred to as the “UN cluster system,” this is not the label preferred by the clusters themselves. Here we employ either the “humanitarian cluster system” or simply the “cluster system.”

empirical section is to improve this picture by including actual experiences in the field, showing some aspects of how the cluster system has worked in practice.

The cluster system is in rapid transition due to recent implementation and feedback from initial deployment, so that any experiences and opinions regarding it are necessarily a product of the specific time of the experience and the time of the interviews itself. This places us squarely in a context of discovery where rich information is required (Glaser and Strauss, 1967), meaning that in depth case studies are particularly appropriate for uncovering the basic experiences and mechanisms in the case (Stake, 2000). Matching between theory and empirical part is part of this exploration process and can be related to an abductive approach (Dubois and Gadde, 2002, Gyöngyi and Spens, 2005). This leads to a process of “systematic combining” drawing together theory and data for new insights, and indeed to understand new aspects of the problem itself (Dubois and Gadde, 2002). Such a process matches the approach here well.

The primary data for this article is based on an extensive case study of coordination mechanisms in humanitarian logistics covering specifically the UNJLC (United Nations Joint Logistics Centre) and the Logistics Cluster. A total of thirty seven semi-structured interviews were carried out with members of the UNJLC, Logistics Cluster, NGOs and other actors in the humanitarian system. The focus was on uncovering the workings and coordination mechanisms of the cluster system, and the opinions of those involved. The initial interviews were more focused on a familiarization with the setting. Increasingly an interview guide was employed, but with an emphasis on allowing interview subjects to express their opinions on the system and to help focus on main questions to deal with. This contributed both to the problem definition stage (Van de Ven, 2007) as well as in obtaining “active data” (Dubois and Gadde, 2002).

The trustworthiness criteria from Lincoln & Guba (1985) were employed as the main guideline in this research, since coordination and its implementation are essentially organizational issues to be negotiated between a large number of individuals. The relevance of these criteria to logistics research has been discussed elsewhere (Halldorsson and Aastrup, 2003). The majority of the interviews were recorded and transcribed verbatim by the author to create a research log. Those interviews which were not recorded were typed up soon after completion based on handwritten notes, with additional notes based on the author’s experiences. All interview logs were sent to the original interviewee for confirmation and completion subsequently. In a few cases the subjects asked to exclude certain parts of the interview. The case description in this paper was reviewed by a senior Logistics Cluster officer for final comments and adjustments. Since the purpose here is a matching between a particular literature and the cluster concept, truth claims will be based on showing relevance rather than any generalization in terms of how the clusters themselves are perceived. The number of actual interviews is high for this sector, but does not imply knowledge about the population of aid workers.

The selection of material from the case relevant to the current article was carried out in two ways. First, certain themes and main findings had been recurring during the interviews and these have been included on a general basis with reference to specifics where relevant. Secondly, the main goals of the cluster system as well as relevant 4PL components (see section 3) were listed and the thirteen most recent fully transcribed interviews were then reviewed to see where specific quotes or statements addressed these, creating a table of quotes or statements. The simple Excel table was manually generated. The most important of these quotes or statements have been included in the empirical material as an illustration of opinions and experiences. Note that all quotes are referenced by the title of the interviewee at the time of the interview.

3 The Humanitarian Cluster Concept

The humanitarian cluster concept in humanitarian response is a result of the Humanitarian Review carried out as a consequence in part of coordination issues arising during the Indian Ocean Tsunami and Darfur crises in 2004-2005, see (Adinolfi et al., 2005). Among the key areas to be addressed were predictable leadership at the global and local level, strategic field level coordination and prioritization, and sufficient global capacity to meet current and future emergencies (OCHA, 2007). Clusters have been defined for only those areas where coordination issues were seen as significant. Examples of issues are the lack of a global vision, different approaches by NGOs and the UN system, lack of agreement on how to use limited resources, insufficient common knowledge of stockpiles and overloading the humanitarian coordinator (Adinolfi et al., 2005).

The basic cluster structure consists of eleven clusters. Nine clusters are programmatic in nature and two are service provision clusters (logistics and emergency telecommunications)². For each cluster a global cluster lead is defined with the responsibility for overall leadership of the cluster. The exact responsibilities of the cluster leads have been further defined. Here we use an official definition of the main aims or goals of the cluster system³:

- Facilitate the coordination between the cluster members
- Encourage joint working
- Ensure that responses are in line with existing guidelines and standards
- Collate and share information
- Identify gaps in the response
- Stand in as the “provider of last resort” when there are no other options (IASC, 2006)

² Agriculture, Camp coordination/management, Early recovery, Education, Emergency Shelter, Health, Nutrition, Protection, Water Sanitation Hygiene, Emergency Telecommunications and Logistics.

³ The definitions are currently being reviewed and may be changed.

When the cluster system is mobilized for an intervention on the initiative of the humanitarian coordinator or emergency coordinator in a country, a local cluster lead is mobilized. The empirical examples employed here are from the Logistics Cluster since this is naturally closest to the 4PL literature. They are structured according to the 6 goals above. Note that there are elements of the Logistics Cluster that are not fully captured within these points, for example advocacy with local governments and principles of partnership.

3.1 Facilitate the coordination between the cluster members

The Logistics Cluster lead facilitates the coordination between the cluster members in several ways. A global cell with NGO participation is responsible for development projects. The aim is for the global cell to include 5 WFP personnel and 4 others from either UNICEF, ECHO, NGOs or other actors as appropriate (Director of Logistics, WFP). A second main coordination platform is on-site meetings in all the relief operations where the cluster is mobilized. These are a direct way of gathering and disseminating information, as well as discussions and decisions relevant to the cluster. Meetings are optional but often well attended, with as many as 100 different agencies and NGOs attending some of the cluster meetings in Haiti for example (Logistics Officer, Logistics Cluster). This can create practical problems in itself. "...not every topic that is discussed in the meeting is of interest for everybody. So there is a split on the thematic..." (WFP Logistics Officer No 2). Follow up discussions with NGOs and others that deal with specific issues is one way of reducing the load of having many participants at the meetings.

3.2 Encourage joint working

Joint working is encouraged partially through the presence at the global cell, but also through cluster meetings. These are not just a communication channel from the cluster lead to the participants but also between these participants. However, it is clearly much harder to control the degree to which participating NGOs and other organisations cooperate beyond the cluster. The role of the cluster lead is important in creating such cooperation: "the role of (the cluster lead) – it's really being inclusive, having each and every partner or potential partner of the clusters having a voice." (Field Support Specialist, UNICEF). Joint working can then be seen as an extension of this opportunity of participants to have a voice rather than a result of a direct cluster lead decision. "...a strong tenet again of the cluster approach is...partnership, partnership spreading across the UN family and the NGO/humanitarian world as well." (Head of Logistics Cluster). It seems then that there is awareness that joint working is desirable and essential for the cluster system to operate well.

3.3 Ensure that responses are in line with existing guidelines and standards

Several approaches are employed to ensure that responses are in line with existing guidelines and standards. A large number of documents and reports have been published both regarding the cluster system overall and the Logistics Cluster (Steets et al., 2010). There is also some understanding that there is a need for standardization: "...when it comes to working with the cluster if we would all be submitting our information in different formats it would be impossible for the small cluster team to process the information...I don't think there is even a discussion of whether we should or shouldn't use the formats." (Global Logistics Manager, NGO). For logistics, a full logistics operations guide has been developed based on the logistics documentation of 28 NGOs as a "good practice" piece available to anyone. However, much of the time participants do not have the time to fully use these kinds of documents (WFP Logistics Officer No 1). The cluster lead carries out logistics response team (LRT) training sessions in order to give familiarity with the concept in a simulated setting at Brindisi. To some extent this is because going through the guidance notes in themselves is not enough for a full understanding of the concept (WFP Logistics Officer No 3). This also creates a level of familiarity and trust between the logistics personnel actually participating in the trainings because they are likely to meet in future emergencies. "...we know who we are and what we're supposed to do, let's just do it." (WFP Logistics Officer No 2).

3.4 Collate and share information

Collating and sharing information is largely carried out through the log cluster website, with frequent updates in terms of meeting minutes, developments in cluster operations and important logistics updates such as flight timetables from UNHAS and road status. Specific projects are also carried out to benefit all users of the website. For example the customs information guide was a project to develop an easily accessible database of customs requirements in different likely hotspots for relief operations, allowing NGOs and others to quickly access this once an intervention started rather than having to find it themselves (Project Responsible, Customs Information Guide). Another example is training of NGO personnel to report back logistics information such as road status and availability of bridges through a GPS tool, enabling the cluster map group to put this on logistics maps to be published on the website (Head of GIS Unit, Sudan). NGOs report contributing to this "...my teams that work in some specific areas of South Sudan for example are providing regularly road access information back to the cluster." (Global Logistics Manager, NGO) This sharing is also reflected in how cluster leads deal with participants: "Everybody who is a recognized NGO when we are in an operation – by OCHA, is automatically our client." (Director of Logistics, WFP)

3.5 Identify gaps in the response

Identification of gaps in the response seems to be partially a consequence of keeping informed and the ongoing operations of WFP in most relief sectors. "...one key word or sentence is the Logistics Cluster is the backbone of the logistics operation, it's really gap-filling. ...it became now natural and it's expected that the Logistics Cluster would step in and try to fill that gap." (Field Support Specialist, UNICEF) That is, WFP overall is large and may be doing food transport to an area even as it

holds the responsibility as cluster lead for logistics, which does not deal with food distribution. This makes it easier to spot and bring up possible gaps in the response. Furthermore, the meetings are another arena where other organisations who experience gaps on the ground are able to contribute by raising areas they see as problematic. The identification of gaps should not be discussed without mentioning the concept of operations (Conops) created at the start of an emergency, which includes feedback from the logistics assessment team. This short document "...is really a write up (of) 3-4 pages where we look at the gaps." (Director of Logistics, WFP). In this sense there is an attempt to identify the most important gaps at the start rather than having to deal with them as they appear.

3.6 Provider of last resort

Finally, standing in as the provider of last resort is in some sense a complicated topic. Mutual agreement between cluster participants is a necessary part of the cluster concept, but the point at which this becomes identifying and filling a gap is not always obvious, especially if the gaps are well identified and dealt with at the start of an operation. However, the interviews suggested that there were a number of situations where the cluster lead had taken on tasks no other organisations were willing to do, which indicates that the provider of last resort clause was invoked. One example is the system of warehouses and trucks set up during the Gaza crisis and offered to NGOs. "This was in my opinion a last resort for lots of NGOs. It was like piggybacking into our system." (WFP Logistics Officer No 2). It is important to emphasize that such a responsibility is a new concept. "The whole emphasis on accountability came about through the cluster approach, something that previously did not exist in the sector approach." (Head of Logistics Cluster).⁴

4 Fourth-party logistics

The term "4PL" was first coined by Accenture and defined accordingly:

*A supply chain integrator that assembles and manages the resources, capabilities, and technology of its own organization with those of complementary service providers to deliver a comprehensive supply chain solution.*⁵

Initially 4PL was a trademark but it has increasingly become a recognized term in business literature as well. The original definition of 4PL covered 4 key elements: Architect/integrator, Control room, Supply Chain Infomediary and Resource Provider.

⁴ The definition of the provider of last resort is also under review as part of the larger review of the humanitarian reform.

⁵

http://www.scmo.net/index.php?option=com_content&task=view&id=381&Itemid=25

The ability to be an **architect or integrator** is core to the description of a 4PL in the literature, and means having the competence to carry out supply chain design as well as the supporting skills within project management and customer management to enable the supply chain to work at an overall level. It can be based on either a strong competence within supply chain design, but also on being in an independent position making it easier to make overall arrangements that are beneficial for the supply chain in question. This makes the 4PL less vulnerable to allegations of favoring the use of its own resources – at least where it does not have heavy 3PL-style assets (Win, 2008).

The **control room** places the 4PL as a decision maker with a focus on managing operations from day to day rather than necessarily carrying out transport and warehousing. The management of multiple 3PLs comes under this heading. In fact, the concept of a hub, at least when it is meant in operational terms is entirely relevant to this category (Jensen, 2009). Using the concept of a hub enables us to see more in detail some of the more structural effects of using a 4PL. Several aspects can be identified, including the reduction of the number of business ties or ongoing communication, the handling of risk and the more general concept of an intermediary (Jensen, 2009, Sundquist, 2011).

Acting as a **supply chain infomediary** means to “create electronic links between the supply chain members.” (Fulconis et al., 2006, p.73). That is, the 4PL not only takes on the intermediation role between different providers and users of their services, but also provides specialized infrastructure to make the day to day running of the system easier and more efficient. This shows the value of specialist knowledge possessed by the 4PL, even where it is not focused primarily on the typical 3PL tasks such as transport, handling and warehousing.

Specialist knowledge refers to the issue that some firms focus on certain skills and capabilities in order to carry out these more efficiently. This efficiency can be based on experience, particular investments in technology or people, or a combination of the two. These arguments can be found again in core competence literature or the resource-based view (Barney, 1991, Prahalad and Hamel, 1990), and is different from the scale argument in that the specialist carries out activities better even at the same scale as other firms.

The ability to be a **resource provider** is one of the elements of 4PLs that have changed somewhat since the original formulation, in that it is increasingly seen as an advantage if the 4PL itself does not have extensive physical resources within for example transportation and warehousing (Win, 2008). The use of physical resources may require different competencies than those normally held by a 4PL. Furthermore, it can create a bias in the selection of physically based services. The argument goes that it is better to be “asset neutral” and simply to be good at buying the services of other firms such as 3PLs which can then focus on making the best possible use of physical resources (Persson and Virum, 2001). For those tasks the 4PL carries out, the arguments are essentially tied to scale and specialization. Advantages of scale are a common theme in business, production and distribution (Chandler, 1990). This basic four-pronged definition of a 4PL does not however fully reflect the development of the industry over time, and more recent definitions can be used to improve upon the understanding of a 4PL.

Fulconis et al. (2006) pursue the concept of the 4PL as primarily performing important intermediary tasks in the supply chain. They argue that the basic purpose of a 4PL is to carry out certain types of intermediation "...intermediation is an economic process that consists of finding, among all the different products and services, the one that best meets customers needs" (Fulconis et al., 2006, p.72). This is a perspective where the 4PL connects buyers and providers of services, matching them and organizing the overall supply chain. However, Fulconis et al. argue that over time 4PLs have increasingly moved from carrying out this intermediation role to also carrying out info-mediation, effectively becoming a central hub in the information flow of the supply chain.

The original 4 elements of a 4PL definition can be reduced to 3 by considering the development of the 4PL concept over time. The integrator and control room elements of the original definition can both be mapped to a general level related to managing relationships, designing the overall supply chain and ensuring that standards and compatibility exist. A 4PL may not be able to influence all of these components, for example standards may already exist and not be easily changed, but this overall responsibility for the flow of goods and influence on the supply chain is an important component. The infomediary element can be related to information management and information flow, where the 4PL often has some of its specific investments in terms of competence and IT systems. Finally, the resource provision is no longer really considered to be one of the 4PL elements, but this still needs discussing and some authors still maintain its relevance (Mukhopadhyay, 2006). Table 1 below shows the mapping. These 3 elements of a 4PL definition with resource provision as a borderline element will be used in the rest of this paper.

Original definition	New element
Integrator	Relationship management, supply chain design and overall standards
Control Room	
Infomediary	Information management and flow
Resource provider	Resource provider

Table 1: Mapping the definition

5 Analysis

In general terms we can say that we have six main aims or goals which the cluster system and cluster lead should pursue (see section 3), and we have three (simplified from four) main elements of 4PL where the literature can inform us on how to deal with the aims of the cluster system. In this section we take each of these six main aims of the cluster system, discuss how they fit with the 4PL literature, and more importantly what lessons from 4PL are relevant to the cluster system. The discussion is structured according to the 6 aims of the cluster system, but since the first two are grouped together, this gives us 5 sections for discussion.

5.1 Facilitate the coordination between the cluster members and encourage joint working

Coordination and facilitating joint working are merged here since these issues are often discussed as one point in the 4PL literature – i.e. in this literature coordinating participants of the supply chain and encouraging others to work together is part of the same task. The cluster lead is meant to “make the system work” and ensure an overall successful response. This should happen through focusing on coordination of other actors, although the cluster lead itself can be a full participant in the relief operation. The most important role of the cluster lead in coordination is in getting other actors to cooperate in their activities since most activities in any relief setting will be carried out by international and local NGOs and authorities.

In a commercial setting the 4PL is able to negotiate contracts on behalf of a paying client, and often there are many potential 3PLs vying for these contracts, so that selection and maintenance of a “population” of suppliers is part of its activities. For the cluster leads, it is more a case that they have to deal with those organizations that are or choose to be present during a relief operation. However, effective organization, access to funding through the cluster system and the fact that the cluster system is more dependent on good and effective rather than complete participation means that there are in practice many parallels. Even so the degree of participation in itself is an important measure for the cluster leads.

The limited control over the participants really leads to a greater emphasis on the relationship management function of the cluster lead. Indeed extant research shows that this is likely to have positive effects (McLachlin and Larson, 2011). This is critical in the cluster system since the lead cannot normally force participation, and many participants are skeptical of “being coordinated.” However these limitations place the cluster leads much closer to 4PLs than might be expected. Indeed 4PLs too have to convince others to join their system and adhere to the required standards. It is by no means certain that 3PLs or other providers are willing to do this, even though the incentive of the business that the 4PL can bring is strong. Relationship management is important, and not only vis-à-vis subcontractors, but also customers and authorities. The situation where the cluster leads have to work as careful facilitators rather than as a form of channel captain is in this sense quite normal. Some authors have however pointed out that the cluster lead concept in itself can easily lead to an authoritarian approach (Tatham and Houghton, 2011).

5.2 Ensure responses are in line with existing guidelines and standards

Ensuring that responses are in line with guidelines and standards is about running and to a certain extent planning the supply chain, since many of the standards and guidelines for the cluster system had to be developed specifically for this purpose. This is relevant to logistics and supply chain issues, since this is an area with limited

standards in the humanitarian community. In this sense the need to communicate how the cluster is meant to operate as well as logistics and information standards matches the 4PL experience. This is one of the areas where the Logistics Cluster has been most successful. A lesson from the literature is that economies of scale and scope can be achieved by an organization acting as an intermediary by finding compromises between the standards of different actors (Jensen, 2009).

5.3 Collate and share information

Collating and sharing information fits very much with the infomediary role of a 4PL with the important corollary that participating organisations may decide to varying degrees to share information. That is, much of the important information for the humanitarian supply chain depends on the goodwill and willingness of participants to share. For example, sending GPS data on road infrastructure observed during an NGOs own operations can be very useful but cannot be required of the NGO. This can be related to specialist knowledge in that the cluster lead develops competence in information management.

The concept of specialist knowledge requires some additional clarification in terms of the cluster concept. Within humanitarian response in general, it is reasonable to assume that it is the NGOs, agencies and local governments that are the experts and possess specialist knowledge within their own fields. The exception to this is that some general standards through for example the Sphere project⁶ are better handled across a number of organizations. Furthermore and especially for smaller NGOs it is likely that the field of expertise is limited so there are a number of associated skills where the NGO is not specialized and could use outside help.

5.4 Identify gaps in the response

Identifying gaps in the humanitarian response might not seem to be directly related to the usual tasks associated with 4PL thus limiting the lessons from this literature. However, this is very closely related to two of the main tasks of a 4PL. In terms of making the system work this can be defined in terms of a user or customer, and the gap in provision is then an area where service can be improved. Since the 4PL is partially tasked with finding improvements it is very much parallel to the cluster lead which should find the gaps in provision and also see where such provision can be improved. Secondly, the infomediary element of the 4PL places it in exactly the right place to find gaps in humanitarian aid provision in the first place. The lesson from the 4PL literature here is mainly that carrying out the other tasks associated with a 4PL – relationship maintenance, supply chain design and information management is also the best way of being well placed to identify the gaps in the first place. To the extent that the cluster leads “pull back” to let other organisations carry out the operational tasks, they should not pull back too far and stay involved to an extensive degree.

⁶ See <http://www.sphereproject.org/>

5.5 Provider of last resort

The provider of last resort in essence means that the cluster lead is obligated to try to fill gaps in the provision of humanitarian aid. This is certainly contrary to the recent concept of a 4PL where it is exactly the lack of assets which gives the 4PL its legitimacy in choosing the best solution for the customer. In this sense we might expect that there is nothing to learn from the 4PL literature in this regard. However, there are some important lessons.

There are some types of services and investments relevant to 4PLs – for example they are seen to invest in IT-systems and general competence. These are certainly resources in most relevant conceptions (Barney, 1991, Jahre et al., 2006). Likewise the cluster leads can invest in certain limited resources – for example running a website, analysis and gathering data on customs. Some of these tasks can actually be construed as being a provider of last resort. However, it is quite clear that this is not the core of the concept, and that it speaks primarily to direct provision of services to recipients, or facilitating this.

In a commercial setting, we do however see that large transport firms or freight forwarders have specific 3PL businesses, and some have 4PL or consulting businesses as well, all under the same roof. This is more in line with the cluster leads, which are large relief organisations in their own right, with large transport operations (for example WFP). This may be a much more relevant way of thinking about the cluster lead in most settings. Not as an “almost” 4PL, but as a large organization carrying out many operational tasks, and with elements of 4PL tasks on top of this. These elements should then be kept somewhat separate from the rest of the tasks carried out in order to maintain the impartiality and overview that is required to fulfill the responsibilities of the cluster lead overall.

Overall it seems clear that the matching between the 4PL and cluster elements are quite specific. The first three cluster goals, dealing with coordination, joint working, and guidelines and standards can obtain lessons from the relationship management, design and standards elements of the 4PL literature. The fourth cluster goal on collating and sharing information can be matched with literature on 4PLs and information management. The fifth cluster goal on identifying gaps is about both relationship management and design, as well as information management. The sixth cluster goal which is a central tenet of the approach matches the resource provision part of the 4PL concept, which is today largely seen as outside the task of a regular 4PL.

6 Discussion

The 4PL concept provides a partial and useful match in terms of what the Logistics Cluster lead does. For some tasks the cluster leads do not have the control that a 4PL should have, that is the degree of control of the flow of goods and ability to select and make contractual arrangements on behalf of a single customer (indeed the cluster itself is not a legal entity and does not enter into contracts). On the other hand cluster leads in general have many tasks beyond that of a 4PL – they often have substantial resources on the ground, and responsibility for funding appeals and the humanitarian space. The argument in this article is however that there are considerable lessons to

be learnt from parts of the 4PL literature and in the ways that 4PLs conduct their business.

We see that the core tasks carried out by the cluster lead can be related to different elements of 4PLs, and this lets us use the experiences from the 4PL literature. Indeed we see that thinking about cluster leads in terms of 4PL tasks shows us that they are well suited to some parts of their task – for example identifying gaps is much easier once the cluster lead carries out other tasks such as information. This should not be seen as a panacea for the cluster leads but as a contribution to thinking about how they should operate. The emphasis is on information, the overall supply chain understanding and design, and relationship management. We finally see that some of the tasks that the cluster leads already carry out, such as training of personnel to understand the cluster system fits perfectly with the lessons from the 4PL literature.

Furthermore, the success of the cluster system in large part depends on whether NGOs and local governments participate. Whether they choose to do so will depend in part on the manner in which cluster leads conduct their business. A cluster lead which considers itself the “owner” of a cluster with NGOs and others simply as suppliers is unlikely to be successful. This is both because many actors in the humanitarian system have strong organizational identities and do not like to be “directed,” but also because it does not reflect the reality on the ground. The cluster lead clearly does not have the authority to consider itself a traditional “channel captain” who is able to tell others what to do. This is why a concept such as a 4PL provider may be better suited.

The 4PL concept is typically tied to logistics and supply chains and deals with very specific tasks carried out in specialized supply chains where other specialized actors carry out many of the operational tasks. The limitations of the concept are much clearer if we consider the other cluster leads which typically have logistics issues to solve but focus on entirely different activities as their main responsibility. In this sense drawing lessons from the 4PL literature may be as far as the 4PL – Logistics Cluster lead comparison can usefully be employed. We need other concepts for the cluster leads in general. Furthermore, the cluster lead is only one albeit important actor in humanitarian relief. In this sense a greater and more important question long-term is what are the normal roles in a humanitarian supply chain and a relief operation. A good description and analysis of this would allow actors and decision makers a better basis for understanding how the system overall works. In this sense we might argue that the humanitarian supply chain needs more clearly defined roles even as commercial supply chains become less clearly defined in terms of the division of labour.

Finally, using the 4PL concept alludes to the importance of “intermediary” as a concept. That is, many of the advantages or benefits of using a 4PL are tied to the firm operating as a kind of intermediary between buyers and providers and being allowed to organize a part of the supply chain itself. There is an extensive literature on the concept of an intermediary, and it may be fruitful to pursue this as further research (Alderson, 1954, Howells, 2006, Morris and Morris, 2002).

Bibliography

- Adinolfi, C., Bassiouni, D. S., Lauritzsen, H. F. & Williams, H. R. 2005. Humanitarian Response Review. Office for the Coordination of Humanitarian Affairs.
- Alderson, W. 1954. Factors Governing the Development of Marketing Channels. *In: CLEWETT, R. (ed.) Marketing Channels for Manufactured Products*. Homewood, Illinois: Richard D. Irwin.
- Barney, J. B. 1991. Firm Resources and Sustained Competitive Advantage. *Academy of Management Review*, 17, 99-120.
- Boin, A., Kelle, P. & Whybark, D. C. 2010. Editorial: Resilient supply chains for extreme situations: Outlining a new field of study. *International Journal of Production Economics*, 126, 1-6.
- Chandler, A. D. 1990. *Scale and Scope: The Dynamics of Industrial Capitalism*, London England, The Belknap Press of Harvard University Press.
- Dubois, A. & Gadde, L.-E. 2002. Systematic Combining: An Abductive Approach to Case Research. *Journal of Business Research*, 55, 553-560.
- Fulconis, F., Saglietto, L. & Paché, G. 2006. Exploring New Competences in the Logistics Industry: The Intermediation Role of 4PL. *Supply Chain Forum*, 7, 68-77.
- Glaser, B. G. & Strauss, A. L. 1967. *The Discovery of Grounded Theory*, New York, Aldine De Gruyter.
- Gyöngyi, K. & Spens, K. M. 2005. Abductive reasoning in logistics research. *International Journal of Physical Distribution & Logistics Management*, 35, 132-144.
- Halldorsson, A. & Aastrup, J. 2003. Quality criteria for qualitative inquiries in logistics. *European Journal of Operational Research*, 144, 321-332.
- Howells, J. 2006. Intermediation and the Role of Intermediaries in Innovation. *Research Policy*, 35, 715-728.
- IASC 2006. Guidance note on using the cluster concept to strengthen humanitarian response. IASC (Inter-agency Standing Committee).
- Jahre, M., Gadde, L.-E., Håkansson, H., Harrison, D. & Persson, G. 2006. *Resourcing in Business Logistics: The art of systematic combining*, Copenhagen, Liber & Copenhagen Business School Press.
- Jahre, M. & Jensen, L.-M. 2010. Coordination in humanitarian logistics through clusters. *International Journal of Physical Distribution and Logistics Management*, 40, 657-674.
- Jensen, L.-M. 2009. *The Role of Intermediaries in Changing Distribution Contexts: A Study of Car Distribution*. PhD, BI Norwegian School of Management.
- Lincoln, Y. S. & Guba, E. G. 1985. *Naturalistic Inquiry*, Newbury Park, Sage Publications.
- McLachlin, R. & Larson, P. D. 2011. Building humanitarian supply chain relationships: lessons from leading practitioners. *Journal of Humanitarian Logistics and Supply Chain Management*, 1, 32-49.

- Morris, L. J. & Morris, J. S. 2002. The changing role of middlemen in the distribution of personal computers. *Journal of Retailing and Consumer Services*, 9, 97-105.
- Mukhopadhyay, S. K. 2006. The role of 4PL as the reverse logistics integrator: Optimal pricing and return policies. *International Journal of Physical Distribution and Logistics Management*, 36, 716-729.
- OCHA 2007. Appeal for Building Global Humanitarian Response Capacity. Office for the Coordination of Humanitarian Affairs.
- Persson, G. & Virum, H. 2001. Growth Strategies for Logistics Service Providers: A Case Study. *International Journal of Logistics Management*, 12, 53-64.
- Prahalad, C. K. & Hamel, G. 1990. The Core Competence of the Corporation. *Harvard Business Review*, 68, 79-91.
- Stake, R. E. 2000. Case Studies. In: DENZIN, N. K. & LINCOLN, Y. S. (eds.) *Handbook of Qualitative Research*. London: Sage Publications.
- Steets, J., Grünewald, F., Binder, A., Geoffroy, V. D., Kauffmann, D., Krüger, S., Meier, C. & Sokpoh, B. 2010. Cluster Approach Evaluation 2 Synthesis Report. Global Public Policy Institute.
- Sundquist, V. 2011. *Intermediation in Business Networks: A Case Study in the Textile and Clothing Industry*. Licentiate of Engineering, Chalmers University of Technology.
- Tatham, P. & Houghton, L. 2011. The wicked problem of humanitarian logistics and disaster relief aid. *Journal of Humanitarian Logistics and Supply Chain Management*, 1, 15-31.
- Van De Ven, A. H. 2007. *Engaged Scholarship: A Guide for Organizational and Social Research*, New York, Oxford University Press Inc.
- Win, A. 2008. The value a 4PL provider can contribute to an organisation. *International Journal of Physical Distribution and Logistics Management*, 38, 674-684.