

Procurement consolidation in humanitarian supply chains: A case study

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PROCUREMENT CONSOLIDATION IN HUMANITARIAN SUPPLY CHAINS: A CASE STUDY

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The aim of this article is to explore how capabilities are shared among humanitarian organizations through the consolidation of materials during global procurement activities. Global procurement for goods is simplified by the relationships on the ground with other humanitarian partners which allows for a better understanding of the needs and a better fit with the programme objectives. This activity leads the organization studied to consolidate the procurement needs of many organizations worldwide ensuring reduced costs and goods of high quality for its partners with the help of the technical and market knowledge available for procurement activities.

Keywords: public procurement, humanitarian supply chains

Biography:

Alain Vaillancourt has a background in operations management having completed his studies at HEC Montreal with a Bachelor's and Master's Degree in Operations and Production Management. Following his work on an ERP implementation project at UdeM, Alain started working on short term projects in Haiti in June 2011 as a medical warehouse manager with Haiti Communiterie as well as an assistant for a micro-finance project with Phoenix Vision for a period of 3 months. He joined Ti Kay Haiti, an organization supporting the tuberculosis clinic of the Port-au-Prince general hospital, in September 2011 volunteering as the Director of Logistics until June 2012. Currently located in Helsinki, he started a PhD in supply chain management and corporate geography at the Hanken School of Economics where he is also researcher at the HUMLOG Institute.

INTRODUCTION

Procurement activities play an important, even strategic, role in many organizations with consolidation of material sources often used to manage their procurement activities in a globalized world. This management often includes consolidation of suppliers through supplier relationship programs (Lanier Jr., et al., 2010) or through group purchasing where organisations join forces to consolidate their procurement (Rolfstam, 2012). Consolidation of supplier base and consolidation of procurement activities are worth considering in the public sector (Thai, 2009) but laws ensuring transparency and accountability of governments often require open competitive bids adjudicated to the lowest cost supplier (Tadelis, 2012). This approach is taken in public procurement on an international level for major organizations such as the United Nations it hinders consolidation. In recent years, there have been writings studying and analyzing public procurement approaches with sometimes a look at humanitarian organizations. This article focuses on the use of procurement consolidation and its finding on this phenomenon adds both to the humanitarian topic as well as to procurement literature. The addition of the specific context of the organization to standard procurement activities that take into account its legal mandate as well as its humanitarian operations has led to interesting findings in relation to management of procurement activities. These constraints are not normally found in the general literature related to procurement management and consolidation is not discussed in depth in humanitarian literature.

PROCUREMENT CONSOLIDATION

There are many options for organizations that wish to rationalize their procurement activities and obtain savings. One way is through procurement consolidation. This activity has been identified as one of the major 1990's trends in procurement (Trent & Monczka, 1998). To consolidate activities in procurement, there are two strategies found in the literature: 1) the regrouping and reduction of suppliers to reduce the amount of sources for materials (Song, et al., 2014); and 2) the centralization of internal activities for procurement (Smart, 2010). Programs that reduce the number of suppliers create a bigger volume of sale in exchange of better prices, better quality of service through improved delivery capacity, improved service capacity and more efficient order processing (Song, et al., 2014). Internal centralization changes procurement process to reduce the internal transaction costs of procurement management (Smart, 2010). Procurement activities are then used to facilitate consolidation; the most common tools that are used are supplier relationship programs (Cox, et al., 2005; Choi & Krause, 2006) electronic procurement (Smart, 2010; Croom & Brandon-Jones, 2009) and group purchasing (Rolfstam, 2012; Huff-Rousselle, 2012) (figure 1).

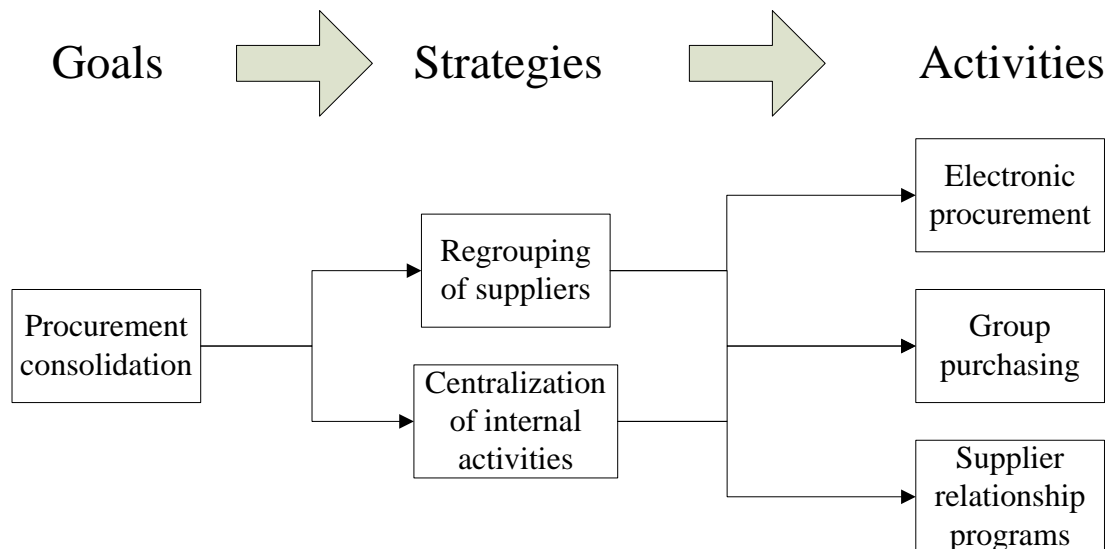


Figure 1: Classification of procurement consolidation activities inside organizations

Supplier relationship programs

The first activity is the consolidation of material through supplier relationship programs; it aims to reduce the number of suppliers and thus increase the volume of purchases from each supplier. A few special suppliers can be identified by an organization and help achieve the goals of consolidating incoming materials procured from suppliers. Preferred suppliers relationship are identified as being a relatively common type of supplier interaction often revolving around the development of long-term sourcing strategies (Cox, et al., 2005) to help support the organization's objectives such as responsiveness which can be improved through supplier relationship programs as the procuring organization can communicate more clearly its needs (Choi & Krause, 2006). This allows both organizations to benefit through the reinforcements of interactions and know-how of each other's operations (Ulag & Eggert, 2006). Sometimes supplier relationship programs can also play a crucial role in the development of new products for their clients (De Toni, et al., 1994). Furthermore, the use of supplier relationship programs have also been identified as a way of reducing procurement risks (Snider & Walkner, 2009) and of obtaining volume leverages from fewer suppliers (Pollitt, 1998; Croom, 2000). In the context of public procurement, it is important to note the need for transparency and accountability with requirements of competitive bidding (Tadelis, 2012) that might preclude the use of supplier partnerships (Snider & Walkner, 2009). However, certain practices might mitigate the impact of this need when procurement conditions are put into place such as past performance, grandfather clauses in contracts and benchmarking (Onderstal & Felsö, 2009).

E-Procurement

The second activity used to support strategies that push towards consolidation activities indirectly targets materials via E-procurement. This change in the procurement process and centralization of the activities was facilitated through the development of new information technology tools such as ERPs and the Internet. These technologies allow for improved information and analysis of procurement activities (Croom, 2000). E-procurement encompasses activities that integrate and streamline procurement processes using information technology to obtain various benefits (Vaidya, et al., 2006; Luigi & Kim, 2010). Such benefits can increase consolidation as E-procurement helps to reduce the number of suppliers through analysis of procurement data (Smart, 2010; Croom & Brandon-Jones, 2009). Consolidation can also occur through ensuring that internal procurement policies and

processes are respected and ensure ease of access to contracted suppliers via E-procurement tools (Smart, 2010; Croom & Brandon-Jones, 2009). E-procurement also leads to lower internal transaction, price reductions and the development of better relationship with the suppliers (Essig & Arnold, 2001; De Boer, et al., 2002; Holland, 1995; Croom, 2000). These benefits are applicable in both business activities and public procurement (Luigi & Kim, 2010).

Governments are not only interested in reduction of costs through E-procurement but also by the availability of better information which helps meet legal requirements and improve transparency, quality of services and compliance (Leipold, et al., 2009). However, the implementation of E-procurement does have drawbacks ; they include the cost of implementation, the difficulty in procuring technically complicated items (Doherty, et al., 2013), the difficulties in managing the integration with the suppliers, resistance to change and lack of uptake by users as well as poor support from top management (Vaidya, et al., 2006). Other drawbacks that are present for E-procurement in the context of public procurement are the legal requirements or strategic priorities of public organization that want to promote a specific market activity. Indeed, for the UN, E-procurement goes against some of its principles as suppliers in developing countries are not able to cross the digital divide and participate into e-supplier schemes easily (Sakane, 2009; Walker & Harland, 2008). Not only would this practice preclude suppliers in developing countries from bidding for contracts but local procurement can support sustainability and allows shortened lead times to respond to needs if the markets have the capacity and proper quality of materials.

Group Purchasing

The third activity that enables consolidation and indirectly targets materials through an improvement of the procurement process consists of handing over the process to an entity outside of the organization, usually group purchasing (also known as cooperative purchasing and consortium procurement). These groups manage the process of procurement for multiple but similar organizations with the goal of increasing their market share to obtain leverage with respect to suppliers (Rolfstam, 2012; Huff-Rousselle, 2012). This strategy is often used by different public and private organizations to help reduce their procurement costs or gain other benefits such as better service levels (Schotanus, et al., 2010). Group purchasing for materials in the context of supply chains is often discussed for the purpose of healthcare procurement (Nollet & Beaulieu, 2005; Stefan & Santiago, 1989). Public sector organizations are more prone to such regrouping than private for-profit organizations. This difference stems from the lack of competition between the organizations procuring from the same market segments and thus the lack of risk of transferring strategic information to competitors (Nollet & Beaulieu, 2005). Nollet and Beaulieu identify an exhaustive list of advantages (price reduction, transaction cost reduction, knowledgeable personnel, savings, increased negotiating power and communication about common preoccupations) and drawbacks (price focus instead of quality, potential for oligopolistic behaviors and the costs to maintain cohesion) resulting from joining group purchasing (Nollet & Beaulieu, 2005) (Nollet & Beaulieu, 2005). The evolution of group purchasing activities can also be affected by certain factors such as the extent of the benefits received, the nature of the benefits, the size of the groups, the potential conflicts in between members, the structure of the group, supplier resistance and anti-trust issues (Hendrick, 1997; Doucette, 1997; Nollet & Beaulieu, 2003). There are other important factors to take into account when managing group purchasing activities to see them succeed which are: the lack of enforcement of participation, cooperation, commitment and internal support, the allocation of gains and costs and communication between the group members (Schotanus, et al., 2010). Group purchasing arrangements centralize the internal procurement process by having a single external source

for procurement by the organization and they are effective tools to support a strategy of rationalization of supplier sources.

Procurement in the humanitarian context

Humanitarian organizations operate in a specific context that affects their supply chains. These supply chains incorporate flows of materials and information that span the world as they must be suited not only for supporting development but also be flexible enough to react to disasters. The different types of disasters make planning very difficult as location, timing and intensity of disasters are unknown until they occur (Balcik, et al., 2010). Additionally to these disasters and development activities, humanitarian organizations might be called upon to respond in the context of wars or conflicts. Procurement in the humanitarian context is a subject which has been developed in the recent literature with articles focusing on mostly quantitative models. These models can be stochastic, mixed-integer or holistic and usually focus on ways to improve competitive bidding and auctions for humanitarian organizations (Ertem, et al., 2010; Falasca & Zobel, 2011; Trestrail, et al., 2009; Bagchi, et al., 2011). Another focus of research in humanitarian procurement is the implications of procurement practices on ethical practices in line with their organizational goals (Walker & Harland, 2008; Wild & Zhou, 2011). Procurement activities are also described when discussing overall humanitarian activities (Blecken, 2010). However, there are some issues that might prevent cooperation such as competition for funding or the different mandates of the organizations (Pazirandeh & Herlin, 2014). There are instances of group purchasing which can be organized through warehouses and distribution centers which offers the potential to save on cost and improve quality of supplies (Schulz & Blecken, 2010).

RESEARCH METHOD

The overall research approach for this study is an exploratory case study (Yin, 2003; Seuring, 2008). In this context an approach of theory elaboration is taken where the case study has a focus on the contextualized logic of a theory (Ketokivi & Choi, 2014). For this specific case study the general concept of dynamic capabilities, with its resources and organizational processes that support the core competencies of organizations to deliver performing products and services, offers a frame to understand the way the organization studied manages its materials (Teece, et al., 1997). Dynamic capabilities arise from resources and competencies and allow organizations to adapt to their environment. The data collection for this case study took place during a three week research visit from the 4th of November to the 22nd of November 2013 at UNICEF Supply Division Headquarters in Copenhagen. UNICEF operates a variety of programs for child survival and development, in the context of development, disasters and conflicts. The UNICEF Supply Division procured products and service worth upwards of \$2.84 billion in 2013 (UNICEF Supply Division, 2014). UNICEF also offers procurement services to more than 100 countries and procures over \$1.36 billion through these services (UNICEF Supply Division, 2014).

The data of this case study reflect the internal point of view of the employees that manage material flows at the headquarters although some of them regularly do field visits. The data sources for this research take into account the activities to manage procurement and supplier relations as well as some of the activities done for the procurement services. All procurement services even though they are initiated in the field are managed through the supply headquarters. For these general procurement activities, the unit of analysis of the case study helps set the context of the supply chain and determines the limits of the case (Koulikoff-Souviron & Harrison, 2005; Bak, 2005). A single case study is used with one unit of observation centered on specific material groups: education, medicine and water sanitation and hygiene (WASH). These different materials cover a broad range of potential responses in

both disasters and development contexts and exhibit differences in the procurement requirements. The procurement activities for these materials are managed by teams of technical specialists in specific field and designated contract managers.

The main approach for data gathering was interviews using broad open-ended questions with different interviewees until data was saturated. In addition to the interviews, publicly available external and internal material of the organization on procurement was retrieved to help in the comparison of differing information from multiple sources. The interviews dealt with the types of commodities for which the procurement activities were done (table 1) as well as an overview of the procurement activities and the specific procurement services activities. The interviews were transcribed and provided to the interviewees for them to review and revise if needed.

Table 1 List of Interviews, UNICEF supply headquarters, November 2013

Material area	Title	Procurement related activities
All materials: Interviewee A, B C, D and E	Planning Specialist	Demand planning and determining reorder points
	Warehouse Assistant – Supervisor	Internal procurement client for replenishment
	Country Focal Point	Internal procurement client for shipping
	Knowledge Management Specialist	Management of coordination of procurement services with local government
	Procurement Services Specialist	Management of procurement service requests at headquarters
Medical supplies and equipment: Interviewee F, G, H and I	Emergency Coordinator	Internal procurement client for emergency responses
	Technical Officer, Health Technology Centre	Evaluation of suppliers and management of materials standards
	Technical Specialist, Essential Medicines	Evaluation of suppliers and management of materials standards
	Contracts Officer, Medicines & Nutrition Center	Evaluation of suppliers and management of supplier performance
Education: Interviewee J and K	Contracts manager, Contracting center	Evaluation of suppliers and management of supplier performance
	Technical Specialist, Education, Water Sanitation and Education Center	Evaluation of suppliers and management of materials standards
Water and sanitation: Interviewee L and M	Contracts Manager, Water, Sanitation and Education Centre	Evaluation of suppliers and management of supplier performance
	Technical specialist, Water,	Evaluation of suppliers and

	Sanitation and Education Centre	management of materials standards
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The data were evaluated with template analysis, a method that allows organizing important amount of qualitative data and can be used for a wide range of studies (Waring & Wainwright, 2008). It was put forward by King and Crabtree and Miller (Crabtree & Miller, 1999; King, 1998); this study follows King's approach in which pre-defined codes as well as some codes that came from the exploration of the data were used to help understand the relationships in the data. The pre-defined codes were centered on the type of material group or product as well as the context of humanitarian activities involved (preparedness, response, and development/reconstruction) while the open coding categories centered on competences, resources, problems and performance. The pre-defined categories were used in a hierarchical manner while open coding was done in parallel. These different coding approaches create a better understanding of the organization of the data and help build a structured account in the findings (King, 2004). Finally all the data from each interviewee was coded together and the findings present a review of the results of this coding with some examples of verbatim quotes representative of the opinion of the interviewees.

FINDINGS

One way an organization consolidates its procurement is through supplier relationship programs that are defined by its specific legal and material requirements. The organization needs to cope with a lot of uncertainty relating to its regular field of activity of development and disasters response. Suppliers are managed through long term agreements (LTA) for a standard item; this approach allows a reduction in the number of suppliers. In this time frame, the LTA has fixed prices and fixed terms which focus on a minimum order quantity from the supplier. The LTAs are also negotiated on the volume of estimated purchases which allows the organization to obtain some reduction of cost as it aggregates the demand for materials from around 100 different countries. LTAs for globally procured standard materials are done with the idea of procuring standard items in large quantities to be consolidated into warehouses of the organization to be then redistributed through kits or normal shipments.

The LTA does not make procurement by the organization mandatory but instead serves as a commitment to work with two to three different suppliers to ensure availability of the stock and performance. Transparency and cost in public procurement requirements entails tender cycle and bidding rounds to ensure the lowest costs from the suppliers. LTAs are developed in a way to act as a tradeoff between the need for lengthy bidding and tender processes in public procurement activities and the need for timeliness in the humanitarian context. With the LTAs, public tendering is not required for each purchase made which saves time and the number of suppliers is low; this allows consolidating the volume of material to lower the price, reduce the number of interactions and thus reduce transactions costs and put more pressure on the supplier for timeliness while following public procurement procedure and ensuring transparency. The LTAs allow a possible change of supplier partnerships over time as the markets and needs of the organization evolve. Another important issue for procurement is the quality of the material which must meet high levels of standards. Quality is ensured before the establishment of the LTA, samples are sent and tested for both the product and the packaging by technical specialists according to the required specifications.

The benefit is that you streamline the procurement, if we didn't have the LTAs then every time we had some request in order to go buy our rules and regulations because we are dealing

with public procurement, we have to always document how we spend the donors money, once you have done your tender clauses and you have an LTA in place then you can feed as many orders into that LTA that you want and you will know that due process has been followed.

-UNICEF respondent I

To define the appropriate LTAs for its needs, the organization relies on two major resources: internal knowledge and partnerships with other organizations (figure 2). There are four types of knowledge: technical knowledge of the goods and materials, market knowledge of the available suppliers, knowledge of the public procurement process and knowledge of the requirements from the field. The different resources of the organization create organizational routines and competences to develop and manage LTA's that are relevant and which offer benefits for cost, quality, timeliness and transparency. To obtain more information from the field, the organization carries out monitoring and evaluation research and discusses the use of the goods and materials with their partners. The organization's presence through offices in each country where it operates creates local knowledge and offers better understanding of the context and of the process with their partners allowing knowledgeable staff to manage information transfers between parties. From these partnerships and internal organizational knowledge, it is possible to create the appropriate standards for the goods to be procured through an LTA. Partners are also involved in exchanging global market knowledge with the organization. For example, in the case of medical goods and supplies, suppliers must first be approved by the WHO before they can even apply to be considered for an LTA. This creates a combination of technical knowledge required to define the items in the LTA and partnerships in between organization. This knowledge and partnerships help monitor the impact in the field and help in understanding the material and supplier market. Moreover, these two resources improve the organization's competencies when establishing LTAs that are relevant for their partners through procurement services and standard programme activities (figure 2).

M&E [Monitoring and Evaluation] mission for health and education kits. So the protocol that they go with to see the teachers and the end users and we have these so called points discussion and interview questions and then eventually what is going to happen they are going to hold a workshop here [...] to see what changes need to be done.

-UNICEF respondent J

You should see the WHO as a normative guidance provider, they are the ones who guide us in many ways [...] WHO has an essential medicine list which is updated every second year and it contains drugs to give the best possible cost benefits and treatment profiles of drugs.

-UNICEF respondent H

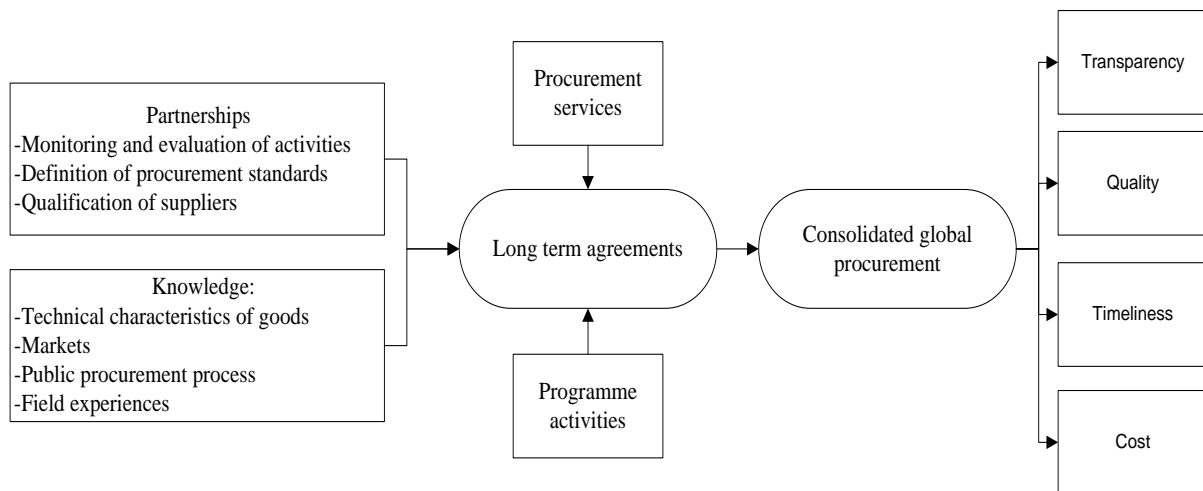


Figure 2: Resources required for the competence of consolidated global procurement and its performance benefits

The data from this case study also show that there are some differences in procurement according to disaster response phases and development activities. These activities are reflected in the procurement strategy that focuses on high quality, low cost and timeliness from their suppliers. In the context of an emergency, the organization is mandated to react in 72 hours. To achieve these delays for events with an unknown demand, it pre-positions and keeps in safety stock at various central warehouses, pre-defined levels of emergency goods and assembles premade kits. The kits are designed and assembled by staff with practical, technical and market knowledge as well as stored in a highly automated centralized warehouse. These activities are done in advance to respond to specific needs and are composed of standard items that are procured as part of regular procurement activities by the organization. As the organization is head of the WASH cluster, it needs to be able to support WASH needs in emergencies and has included this in its LTAs which include safety stock at the supplier as well as the procurement of ready-made hygiene kits. The kits help ensure timeliness for emergencies to help alleviate medical, educational and WASH disruptions. Standard kits are sometimes directly procured but the procurement process follows the same process of tenders and LTAs since the material in kits is often the same as stand-alone standard materials. The impact of disasters is thus seen in the disaster preparedness phase through additional procurement for safety stocks which can cover the requirement of timeliness in response. The LTAs are also helpful in an emergency context to replenish stocks of materials as the tender process is already done.

Suppliers that are in different geographical locations, so you are closer to the destination, helps you in respond faster [in emergencies, the knowledge of...] what challenge usually you have, usually helps you in creating contingency plans, and contingency stocks that are pre-positioned in different geographical locations to help respond faster.

-UNICEF respondent M

Another interesting finding from the data was that the organization partakes in a strategy of group purchasing and gains additional leverage from suppliers by consolidating the needs of multiple partners. The organization consolidates procurement with group purchasing activities through two means. First, through procurement services which are open to government, NGOs and other UN agencies; in this case the partners will arrange their own funding source. And second, through its internal programme activities where the organization finds funding and distributes material across multiple partners. In the case of procurement services, the organization actively organizes procurement for its partners worth \$1.36 billion

in 2014 (UNICEF Supply Division, 2014); the main type of material procured is vaccines which represents 75% of the total value and for which the consolidation activities and the preeminent role of UNICEF in that market is well documented. Indeed, articles mostly from medical journals looking at development issues identify the role of the organization which vaccinates around 40 to 50% of the children around the world as a shaper of the vaccine market (Huff-Rousselle, 2012). The knowledge and partnership which help define relevant LTAs attract other organizations or governments that seek these competences but don't necessarily have them.

It's [an order] not necessarily coming from UNICEF, it could be coming from a partner so it could be coming from a ministry of health, for example, in that country[...] Procurement Services [...] allows other organizations to use UNICEF as a procurement entity. So in that sense anyone can buy through us really, any Ministry of Health any other UN agency and they frequently do.

-UNICEF respondent A

In the case of internal programme activities, the partners, unless requesting non-standard materials, will receive goods procured through the LTAs and which are usually standard for the whole organization. The organization acts as a consolidator of the demand for its implementing partners and regroups the demand of multiple organizations across approximately 100 countries. By managing this demand in a centralized manner, the organization achieves its goals through the support of partners that work with beneficiaries but also derives multiple performance benefits by aggregating the demand of partners through LTAs. These benefits are then passed on to the beneficiaries through the work of their partners. Implementing partners benefit from the organization's centralized procurement (figure 2). UNICEF also gains the benefit of working with their partners and develops a knowledge base inside countries which helps the organization acquire knowledge and create LTA's which are the most relevant for its partners.

The presence on the ground helps to create country knowledge, logistics knowledge, quality management and transparency of the process. Country Offices have an ongoing direct working relationships with the partner governments as well as with other partners in the programme countries.

-UNICEF Respondent E

DISCUSSION AND CONCLUSION

This study addresses a unique case in the context of intergovernmental organizations and NGOs that operate in development or disaster response activities. The findings have both implications for theory elaboration in relations to dynamic capabilities as well as in relation to purchasing consolidation in global humanitarian chains. Dynamic capabilities have been developed with the idea of competition and rent seeking as the underlying goals of organizations (Teece, et al., 1997). However, non-profit organizations still need to build their competencies to achieve their social goals. This study demonstrates that the broad concepts of dynamic capability can offer theoretical support in humanitarian logistics where theory is scarce. This study also points to the role of competency sharing and alignment in between non-profit organizations with similar social goals when interacting inside a supply chain. Indeed, supply chain actors would theoretically align the competencies to extract the highest amount of value. However, for non-profit organizations no rent seeking activities is done when exchanging materials; this allows some organizations in an upstream position to develop capacities that respond to the goals of every actor that follows them. As the scope

and goals of the upstream organizations widen, it will need to reconfigure its competences according to these goals and how they change over time thus requiring dynamic capabilities.

When it comes to the specific phenomenon of purchasing consolidation this study offers some additional insights to research on group purchasing. Indeed, the study presents a unique case in which an organization acts as a group purchaser for many other organizations either attracting other organizations through its competence in global procurement and the performance it brings or by supporting partners through local offices. This differs from other group purchasing activities where organizations come together to create a new entity (Rolfstam, 2012; Huff-Rousselle, 2012; Nollet & Beaulieu, 2003). In this case, the organization already existed and its procurement competence allows it to align its group purchasing services with its organizational goal (Figure 3).

The ability to choose its support partners or simply attract organizations that have similar goals points differs from the standard configuration discussed in the literature. This different configuration of group purchasing activities is supported by specific competences and underlying resources that offer to partners the opportunity to obtain performance levels they might not be able to obtain through their own purchasing activities. This study also contributes by adding more depth on the research related to the practice of purchasing consolidation through supplier relationship programs. Indeed, the study highlights the underlying tradeoff between flexibility and accountability when dealing with suppliers relationships. Supplier relationship and their inherent reduction in number of suppliers (Cox, et al., 2005; Choi & Krause, 2006) often come as an opposite of the bidding process found in public procurement practices. Through the different resources and competencies an organization can attenuate this tradeoff through relevant partnerships activities and knowledge which support decisions to create the right supplier purchasing relationships.

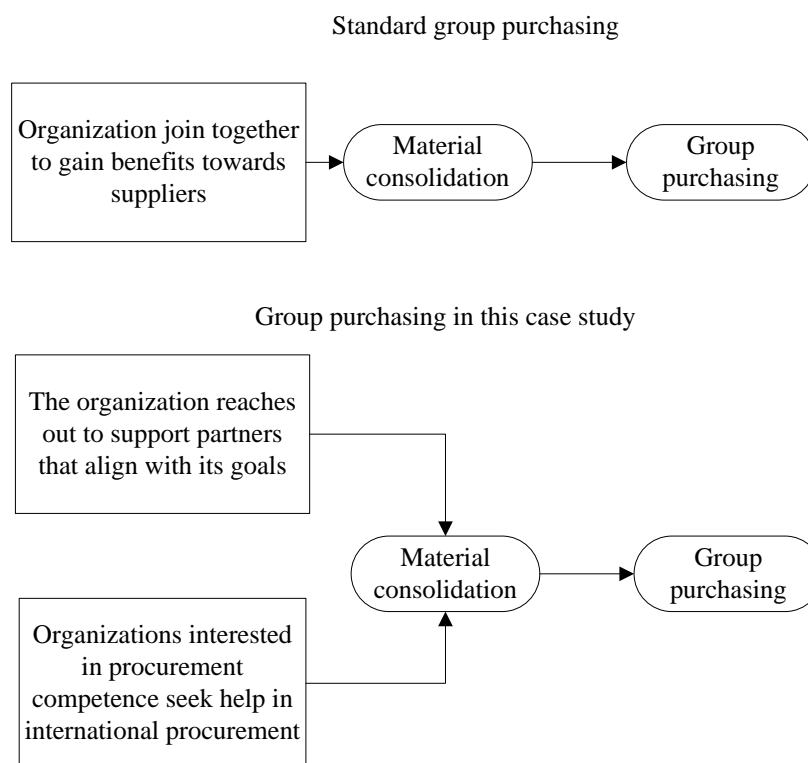


Figure 3 Procurement group activities and material consolidation

The topic of material consolidation is not well developed in the context of humanitarian logistics. This study explored the role of procurement consolidation in the context of intergovernmental humanitarian organizations through a case study at the supply headquarters of a large organization that works in this field. The aim of the study was to understand and explore through which process and activities do intergovernmental humanitarian organizations consolidate their procurement needs. Through theory elaboration, the study shows that dynamic capabilities are a relevant frame of reference even in a non-profit setting. The study also demonstrates that competencies can be shared and aligned on common goals between different members of a non-profit supply chain through consolidation procurement activities. This however leaves the question of how organizations that depend on the dynamic capabilities and competencies of another can build their own capacity to achieve their goals, thus skipping a step in the supply chain and improving performance further. The findings in relation to dynamic capabilities enhance the understanding of the role of competencies for procurement and leads to two propositions to evaluate in further research:

Proposition 1: Consolidation procurement competencies can be shared by multiple organizations through links in their supply chains in order to improve all non-profit actors' processes.

Proposition 2: Consolidation procurement competencies require an increase in knowledge and relationships to improve dynamic capabilities as organizational goals widen.

The upstream organization that manages procurement activities will thus need to manage it for profit supplier in a way that supports its own goals and the other organizations it partners with. When it comes to downstream organizations that directly address the needs of populations that receive materials, they can align with an organization upstream with shared goals and benefit from that organization's competencies and at the same time influence the requirements for dynamic capabilities through the elaboration of specific needs. Thus in the context of intergovernmental organizations and NGOs linked by a not for profit supply chains, competencies and dynamic capabilities can be shared and align themselves on similar goals.

When it comes to procurement consolidation, it is important for intergovernmental humanitarian organizations that deliver directly to partners to offer procurement competencies and performance for both partners that receive the goods and funders that require transparency and cost efficiency. The study shows that supplier relationship programs allow balancing the requirements of public procurement while offering some flexibility in the sourcing of their standard material. The study also highlighted the role of the knowledge base used in the centralized procurement activities and the importance of interactions with in-country activities to access the knowledge developed at this level. These procurement activities offer the organization strategic competence to achieve its objectives and act as a broker to consolidate the procurement needs of multiple partners which share similar goal. These findings related to procurement consolidation by intergovernmental humanitarian organizations lead to two other proposition to evaluate at later research.

Proposition 3: Intergovernmental humanitarian organizations can manage procurement consolidation and develop it in order to attract and support partners that adhere to its goals.

Proposition 4: Supplier relationship programs in intergovernmental humanitarian organization require in-depth knowledge and partnerships to mitigate the tradeoffs between flexibility and accountability.

This study is limited by the scope of the data which has been focused on the activities at the supply headquarters of the organization. As the organization manages most of its global

procurement activities there, this gave the author very good access to key staff members but further research is required with respect to local procurement activities to evaluate the extent of procurement activities inside a country. The findings suggest an interesting approach for other intergovernmental humanitarian organizations which might seek to create flexible procurement arrangements while respecting the requirements of public procurement.

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