

REVIEW OF IMPROVING PERFORMANCE IN HUMANITARIAN LOGISTICS

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Abstract

Each relief and development operation is reliant on logistics. Effective procurement, knowledge of transport conditions and the needs of the affected population, or the arrival of supplies at the right time are essential for the success of providing life-saving aid. Logistics operations are always connected with logistic staff. In 2004, the logistics community realized that it is necessary to create common sector-wide training and a certification program for humanitarian logisticians. This paper presents a review of the different perspectives on the knowledge, training, required sets of skills, and performance of humanitarian logisticians. It also mentions the position of humanitarian logisticians and the gaps in this area. Specific is the gender question, as humanitarian logistics is typically seen as a male field. Furthermore, the findings of this review are crucial for identifying future research topics related to performance and human resources in humanitarian logistics and in the humanitarian sector in general.

Keywords: humanitarian logistics, humanitarian logisticians, logistics skills, training, gender

JEL Code: I24, M53, R41

Introduction

Every year, approximately 200 million people are affected by natural disasters or humanitarian crisis (Van Wassenhove, 2006). Global disasters are steadily increasing in frequency and severity. They typically affect the poorer countries disproportionately due to their insufficient preparedness or unsatisfactory infrastructure. Because logistics is essential for the success of humanitarian operations, the role and impact of effective logistic support are also growing dramatically.

Humanitarian logistics is logistics in a special context – that of natural or man-made disasters with unexpected circumstances. Humanitarian logisticians often work with poorly defined manual procedures, in a politically unstable or insecure climate under high levels of

uncertainty and time pressure (Van Wassenhove, 2006). This time pressure originates from the fact that during a humanitarian crisis, time is a question of life or death.

The successful humanitarian response is when „humanitarian operation mitigates the urgent needs of a population with a sustainable reduction of their vulnerability in the shortest amount of time and with the least amount of resources“ (Tomasini & Van Wassenhove, 2004, p. 1). This is also connected to the effectiveness of humanitarian logistics, which depends on how successfully the needs of aid recipients have been responded to (Kovács & Tatham, 2009).

Humanitarian logisticians can learn from the private sector and despite the differences the basic definition of logistics is also applicable. According to logistics staff, humanitarian logistics includes preparedness, planning, procurement, transport, warehousing, tracking and tracing, customs clearance (Thomas & Mizushima, 2005), medical logistics operations, donor relations and compliance, construction and compound management, and inter-agency coordination (Allen *et al.*, 2013), as well as the effectiveness of suppliers or providers, timeliness of relief efforts, and information flows between the field, headquarters, and donors.

However, in the context of humanitarian crisis, organizations face multiple interventions, sometimes concurrently (Van Wassenhove, 2006). The first 72 hours are crucial, and this is why at the beginning respond time is key. Supplies must be transported from abroad as quickly as possible, regardless of the cost. During the first 90 to 100 days, the equation between effectiveness in helping the affected population and maintaining reasonable costs becomes a factor. In the end, 60 to 80 percent of expenses related to humanitarian operations stem from supply chain activities (Van Wassenhove, 2006). Hence the strong demand and need to improve logistics activities and performance. The high level of expenditure associated with humanitarian supply chain activities also leads to rising media and research attention, especially after the Indian Ocean Tsunami in 2004 (Kovács & Tatham, 2009). This disaster is often marked as a turning point in humanitarian logistics.

Humanitarian aid is provided on the basis of three principles – humanity, neutrality, and impartiality. These principles represent the space in which humanitarian organizations are able to work effectively (Van Wassenhove, 2006). This physical humanitarian space constitutes zone where civilians, non-combatants, and humanitarian workers should be protected from attacks. However, the conflicts in Yemen, Syria, and Afghanistan with their attacks on hospitals or civilians show that this humanitarian zone is no longer inviolable.

1 Methodology

The first step was collection of materials. For this paper, the author used primarily academic peer-reviewed journals. These sources were used for reasons of impartiality and academic relevance. Second, papers from institutes (e.g., the Fritz Institute) were used. These papers are also impartial and cover the whole area of humanitarian logistics. The guidelines or internal regulations of humanitarian organizations were excluded. They do not provide information about the whole sector, and concrete information about particular organizations is not relevant for this paper.

This paper considers only articles published after 2000. The key words “humanitarian logistics”, “humanitarian logisticians”, “training”, “gender”, and “education” were used in mutual combinations. Databases such as Science Direct, ProQuest Central, Web of Science, Scopus, or Emerald were used. Only full-texted papers were included in this article.

All papers cited can be divided into groups. The first group includes articles with general information about humanitarian logistics. These articles were written by Thomas (2003), Tomasini and Van Wassenhove (2004), Van Wassenhove (2006), and Allen *et al.* (2013). The papers from the second group are focused on logistics training and education. Ford and Schmidt (2000), Thomas and Mizushima (2005), Fritz (2007), Kovács and Spens (2011), Bölsche *et al.* (2013) and Gralla *et al.* (2015) wrote the articles that are classified in this group. The third group is focused on logistics skills and includes articles written by Mangan and Christopher (2005) and Kovács and Tatham (2010, 2012). The papers about gender-related question constitute the fourth group. The authors of these articles are Kovács and Tatham (2009, 2010).

2 Training

Proper training of humanitarian logisticians is essential for relief operations because logistics is a critical component of disaster response (Gralla *et al.*, 2015). Nonetheless, Fritz (2007) observed that there is no formal training or certificate courses in such operations. This indicates a strong need for professionalism in humanitarian logistics. Interestingly, logisticians themselves also recognize the lack of education (Thomas & Mizushima, 2005) which leads to insufficient professionalism. A survey by Thomas and Mizushima (2005) revealed that more than 90 percent of respondents „felt training was directly linked to performance on the job“ (Thomas & Mizushima, 2005, p. 2) and find standardized training would be beneficial to the field. Only 73 percent of respondents underwent logistics training.

However, the training was usually provided on the job and tended to be non-standardized. According to the results of this study, there was no organization that provided systematic and standardized training for humanitarian logisticians.

The collaboration between organizations, local universities, associations, and training institutes was found to be useful for improving existing training (Thomas & Mizushima, 2005). Since this observation, many training programmes and certification courses have been established (Kovács & Spens, 2011). In 2006, the Fritz Institute launched the „Certification in Humanitarian Logistics“ program. This program was followed by „Humanitarian Supply Chain Management“ in 2008 and „Certification in Humanitarian Medical Logistics Practices“ in 2009. In 2008, the Logistics Cluster under the World Food Programme’s Training Centre set up training courses with the aim of creating teams of logisticians from diverse organizations (Kovács & Spens, 2011). Many teaching and educational activities were also launched at universities, for the most part targeted at Masters‘ students. Nevertheless, some activities are at the Bachelor level and there are several PhD courses.

Humanitarian logistics training has to reflect the unstable environment in which humanitarian organizations work. Every emergency is different and few tasks are routine, which makes the training very challenging (Gralla *et al.*, 2015). Ford and Schmidt (2000) make a distinction between emergency response training and training for routine operations. One of the differences is that emergency response training must prepare logisticians to immediately register and respond to the onset of an emergency. This type of training is more demanding because it is necessary to develop adaptive and also routine expertise.

When it comes to training and education, the most important is the content of courses. Many of these courses are more basic courses for logisticians rather than comprehensive courses for humanitarian logisticians (Kovács & Spens, 2011). Kovács and Spens (2011) noted that there are relative abundance and operational orientation of training in this context. Courses also tend to focus on particularities of the field rather than on common attributes.

Logistics training and certification programmes could bring cost-effective delivery, better inter-agency cooperation, higher job satisfaction, and career mobility (Thomas & Mizushima, 2005). A very important benefit is the creation of a pool of trained logistics staff with confirmed skills and a greater level of hiring flexibility. Simply, the training should include some fundamental content which is contained in the definition of humanitarian logistics: „management contents like planning, preparedness and implementation; controlling-oriented contents dealing with efficiency and cost-effectiveness; specific parts of logistics like

transport and warehousing; topics from supply-chain management; information-oriented skills like tracking and tracing“ (Bölsche *et al.*, 2013, p. 101), as well as other competencies like “communication and social skills, languages and negotiation skills which are relevant for people in humanitarian logistics“ (Bölsche *et al.*, 2013, p.101).

According to Bölsche *et al.* (2013), there are four categories of training programs. The first category includes emergency training, technical training, and soft skills training, while the second category comprises training by the private sector. A third category includes programs and certifications like the Humanitarian Logistics Association, RedR, Bioforce Institute and the Fritz Institute. The last category involves study programs at universities. Also, the simulated emergency response exercise is one way of teaching humanitarian logisticians a diverse set of skills and is well suited for the humanitarian environment (Gralla *et al.*, 2015).

There is a gap between practice and education that is caused by two facts. First, the people managing humanitarian logistics operations usually do not have any formal education in humanitarian logistics. Second, educators tend to exhibit a lack of understanding of the humanitarian context. This could be offset by bringing practitioners to the classroom (Kovács & Spens, 2011).

3 Logistics skills

The literature does not provide any consensus on placing single skills in specific sets or on dividing logistics capability into certain skills (Kovács & Tatham, 2012). In general, logisticians, have to use logistics or supply chain management skills as well as have an extensive set of skills in other areas (Kovács & Tatham, 2012). The concrete set of skills required for humanitarian logisticians depends on the job description and on the individual organization’s view of what logistics covers (Kovács & Tatham, 2010).

One reason why identifying the required logistics skills is important is the low level of permanent staff in the humanitarian sphere. Indeed, staff turnover in humanitarian logistics is extremely high; workforce rotation of field logisticians can reach 80% (Thomas, 2003). This turnover often stems from burn-out in response to the physical and emotional demands on logisticians who often have to pull out of one disaster and head off to another overnight. In the end, the turnover leads to a constant lack of skilled staff (Van Wassenhove, 2006).

In the humanitarian context, both technical skills and management skills are needed (Kovács & Tatham, 2010). There is some imbalance between these skill sets. According to

Mangan and Christopher (2005), workers can perceive themselves firstly as managers and secondly as logisticians. This is reflected in the results of a survey carried out by Kovács and Tatham (2010). Respondents chose problem-solving and interpersonal skills as more relevant than general management skills or logistics skills. However, this lower magnitude of logistics skills can rise in the proposition that functional logistics skills are qualifiers and not differentiators for logistics jobs (Hoek *et al.*, 2002). This proposition is supported by findings from research carried out by Kovác and Tatham (2012), which also describes how job advertisements are targeted at humanitarian logisticians. The skills most often mentioned in job ads are inventory and asset management“, “purchasing and procurement“, “transportation management“, and “fleet management“.

An important consideration for the planning of training and education is hierarchy. At various levels in the hierarchy, logisticians require a different set of skills and this must be reflected during the training. These levels are not only interconnected with job placement (field versus HQ positions) but also with the hierarchy within logistics operations. For example, skills related to fleet management are more important for outbound logistics, while for inbound transportation management takes priority (Kovács & Tatham, 2012). This finding is also important for academics – further research should reflect hierarchies rather than using one robust skills model for all logistics staff.

Future humanitarian logisticians should take in account the importance of technical and functional knowledge including also some aspects of mechanics and maintenance (Kovács & Tatham, 2012). Humanitarian logisticians might also have to manage administrative tasks and facilities when working in the field. The combination of both manual tasks and management makes this job very challenging.

4 The Position of Logistics and Logisticians

Before the rise in importance of global sourcing, very little attention was paid to logistics in relation to strategic planning. The change has come with costs.

Logistics is still often absent in the higher management levels of humanitarian organizations (Allen *et al.*, 2013). And the level of recognition of the importance of logistics within these organizations is unclear. Programme staff and senior managers often lack in-depth knowledge about logistics and this means that logisticians are rarely included in their planning. In the end, this absence means that logistics costs are overlooked (Thomas & Mizushima, 2005). The short-term contracts and the working environment lead to high

turnover among logistics staff (Thomas & Mizushima, 2005). This turnover limits learning within organizations. The organizations gain and lost knowledge quickly.

All these aspects often lead to the isolation of logistics from finance, management, or information technology (Thomas & Mizushima, 2005) and to the lack of professionalization in the logistics profession.

5 Question of gender

Gender, logistics skills, and logistics performance are interconnected (Kovács & Tatham, 2010). Humanitarian logistics is typically seen as a male field, and the underrepresentation of women in the general logistics area is criticised. This is in strong contrast to the high number of women in other positions within the humanitarian organizations.

An entry barrier for women could be the perception of some functional logistics skills as “rather male” skills, and of “female” skills being less relevant for logistics performance. In the end, the mean of women working in humanitarian logistics is 20 percent (Kovács & Tatham, 2010) despite the fact that for example „oral communication“, „risk management“, „problem identification“, and „inventory management“ have been classified as more “female“ areas. Female logisticians are also better in negotiation and they have a different set of skills, especially in leadership.

At first glance, the link between humanitarian logisticians and meeting the needs of beneficiaries is not apparent. Gender sensitivities are significant during two interactions between groups of beneficiaries and humanitarian logisticians: needs assessment and the “last mile” problem of delivering aid (Kovács & Tatham, 2009). To this extent, gender-related problems within organizations directly influence the effectiveness of humanitarian operations. This influence comes from the fact that logisticians make decisions about the distribution of humanitarian aid. Kovács and Tatham (2009) demonstrate this in a few anecdotal examples: the first about a particular organization which purchased only one size of female underwear after the Indian Ocean Tsunami, and the second about distributing only two sanitary pads to female beneficiaries in a refugee camp.

Overall, sex segregation is underlined in three ways – „as a lack of female logisticians in general, in differences between male and female decision-making in logistics, and in differences in access to female beneficiaries caused by a lack of female humanitarian logisticians“ (Kovács & Tatham, 2009, p. 178).

Gender mainstreaming in the context of humanitarian logistics is focused on a question of access. According to Kovács and Tatham (2009), studies on sex segregation have to focus more on women's career patterns.

Conclusion

The aim of this paper was to summarize the knowledge of humanitarian logistics, logisticians, and their training needs. It is logical that “humanitarian logistics education will not avoid disasters but it can be the key to a lower number of affected people and economic damages“ (Bölsche *et al.*, 2013, p. 101). Even if there has been a significant improvement since the founding of the Fritz Institute in 2001 and the Indian Ocean Tsunami in 2004, there are still noticeable gaps in logistics training and education.

Future research should focus more on the gender question in humanitarian logistics. According to Kovács and Tatham (2009), even in organizations with more than 90 percent female staff, the logisticians are usually males. The situation may have changed in recent years, but it is definitely worthy of more attention.

Another area which should be examined is the recruitment process. The unclear relation between “nice to have“ and “must have“ skills can strongly influence the selection of potential logistics staff.

The question of the motivation of humanitarian logisticians also has great potential. As mentioned above, the turnover of logistics staff is high and understanding why logisticians have chosen this job could help to prevent their burnout and abandoning the profession. An analysis of why logisticians leave their positions would be also useful; humanitarian organizations might find other reasons like poor establishment, communication, or collaboration in the field within the organization or other issues that are not related to the natural environment of humanitarian operations.

The challenge in humanitarian logistics is that the competences and skills of logisticians do not develop as fast as the practice environment does (Bölsche *et al.*, 2013). Consequently, factors such as flexibility, simulated emergency response exercises, and problem-solving or stress-resistance skills will have a greater impact on the success of humanitarian operations. Improving cooperation between different organizations can enhance the performance of logisticians and the outcomes of humanitarian operations. People, their motivation, skills, and needs change continuously. Humanitarian organizations have to reflect these changes and respond to them when it comes to training and education.

Acknowledgments

The author would like to show her gratitude to Reena Sattar for proofreading of this paper, and Felipe Martinez for comments that greatly improved the manuscript.

References

- Allen, A. M., Kovács, G., Masini, A., Vaillancourt, A., & Wassenhove, L. V. (2013). Exploring the link between the humanitarian logistician and training needs. *Journal of Humanitarian Logistics and Supply Chain Management*, 3(2), 129-148. doi:10.1108/jhlscm-10-2012-0033
- Bölsche, D., Klumpp, M., & Abidi, H. (2013). Specific competencies in humanitarian logistics education. *Journal of Humanitarian Logistics and Supply Chain Management*, 3(2), 99-128. doi:10.1108/jhlscm-08-2012-0019
- Ford, J., & Schmidt, A. M. (2000). Emergency response training: Strategies for enhancing real-world performance. *Journal of Hazardous Materials*, 75(2-3), 195-215. doi:10.1016/s0304-3894(00)00180-1
- Fritz, L. (2007), "Making global connections: one organization attempts to mend the disconnect in disaster response", *San Francisco Medicine*, Vol. 80 No. 2, pp. 20-21.
- Gralla, E., Goentzel, J., & Chomilier, B. (2015). Case study of a humanitarian logistics simulation exercise and insights for training design. *Journal of Humanitarian Logistics and Supply Chain Management*, 5(1), 113-138. doi:10.1108/jhlscm-01-2014-0001
- Hoek, R. I., Chatham, R., & Wilding, R. (2002). Managers in supply chain management, the critical dimension. *Supply Chain Management: An International Journal*, 7(3), 119-125. doi:10.1108/13598540210436568
- Kovács, G., & Spens, K. M. (2011). Trends and developments in humanitarian logistics – a gap analysis. *International Journal of Physical Distribution & Logistics Management*, 41(1), 32-45. doi:10.1108/09600031111101411
- Kovács, G., & Tatham, P. (2009). Humanitarian logistics performance in the light of gender. *International Journal of Productivity and Performance Management*, 58(2), 174-187. doi:10.1108/17410400910928752
- Kovács, G., & Tatham, P. (2010). What Is Special about a Humanitarian Logistician? A Survey of Logistic Skills and Performance. *Supply Chain Forum: An International Journal*, 11(3), 32-41. doi:10.1080/16258312.2010.11517238

- Kovács, G., Tatham, P., & Larson, P. D. (2012). What Skills Are Needed to be a Humanitarian Logistician? *Journal of Business Logistics*, 33(3), 245-258. doi:10.1111/j.2158-1592.2012.01054.x
- Mangan, J., & Christopher, M. (2005). Management development and the supply chain manager of the future. *The International Journal of Logistics Management*, 16(2), 178-191. doi:10.1108/09574090510634494
- Thomas, A. (2003). Humanitarian Logistics: Enabling Disaster Response, Fritz Institute, San Francisco, CA. Retrieved January 29, 2018, from <http://www.fritzinstitute.org/pdfs/whitepaper/enablingdisasterresponse.pdf>.
- Thomas, A., & Mizushima, M. (2005). Logistics training: necessity or luxury? *Forced Migration Review*, 22(22). Retrieved February 05, 2018, from <http://beta.fritzinstitute.org/PDFs/FMR18/FMR22fritz.pdf>.
- Tomasini, R. & Van Wassenhove L., (2004). A framework to unravel, prioritize and coordinate vulnerability and complexity factors affecting a humanitarian response operation, INSEAD, Fontainebleau, France. Retrieved February 05, 2018, from https://centres.insead.edu/humanitarian-research-group/research-projects/documents/WP2004-41_Frameworktounravelhumanitarianresponseoperations.pdf
- Wassenhove, L. N. (2006). Humanitarian aid logistics: Supply chain management in high gear. *Journal of the Operational Research Society*, 57(5), 475-489. doi:10.1057/palgrave.jors.2602125

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