

A New Material Planning Model for Enhancing Effectiveness of Humanitarian Supply Chains

Saji Gopinath
Associate Professor,
Indian Institute of Management Kozhikode,
(email:saji@iimk.ac.in)

The field of Humanitarian Logistics that deals with the management of logistics operations related to disasters is evincing substantial interest from practitioners and academicians ever since the disastrous tsunamis struck the Indian Ocean coast in 2004. Even though the supply chain efforts accounts for about 70% of relief work (Trunick, 2005), the literature on the same is scanty (Beamon and Kotelb, 2006) and is generally limited to trade literature. From several studies of natural disasters, it is evident that the loss of lives and property lost in post-disaster stage due to poor rescue and support operations is many times more than the loss happened due to the direct impact of the disaster. This establishes the need for serious academic research in the area to answer several unanswered questions in the design of supply chains which should meet the conflicting objectives of efficiency and responsiveness. In this paper we propose a new risk based framework for developing a Supply Chain which will minimise the demand-supply mismatch evident in many relief situations. We develop a risk based sourcing strategy for this *Just-in-case* supply chain, which will ensure proper market mediation in the event of disaster while taking into account numerous practical constraints that shape its design. The model is validated using the primary data collected from the tsunami relief camps in the South-west coast of India.

*For further details, contact - Publications & Research Dissemination Office, IIMKozhikode,
IIMK Campus PO – 673 570, Kozhikode, Kerala, India. Phone: (91) 0495 2809126
Email:prd@iimk.ac.in.*
