## **Good Performance Measurement in Humanitarian Supply Chains for Ongoing Operations**

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There is an increased challenge of providing humanitarian assistance as humanitarian organizations are thinly stretched in multiple long-term humanitarian relief operations. ongoing operations, to protracted conflicts around the world. There is a need for a high performing humanitarian supply chain for the delivery of relief items to these humanitarian relief operations. Performance measurement provides the means by which a humanitarian organization can whether its supply chain has improved or worsened in relation to its goal of delivering the right relief items, in the right quantities, to the right location, at the right time.

To support decision making in the supply chain, performance should be measured across the supply chain by developing performance measures on the supply chain processes. In a humanitarian supply chain these processes are; assessment/planning, procurement, storage and transport. For each process, performance measures should be developed to support decisions on a strategic, tactical and operational decision level.

Performance measures should be derived from and reinforce the supply chain strategy by translating it in a way that leads to that actions are taken to reinforce the strategy. In this study, it was identified that the supply chain strategy most associated with humanitarian supply chains for ongoing operations is a hybrid strategy. A hybrid strategy aims to build an agile response upon a lean platform by seeking to follow lean principles up to a point holding strategic inventory, and agile practices after that point. As a hybrid strategy is a mix between a lean strategy, focused on cost efficiency and reducing waste, and an agile strategy, focused on a high service level towards customers, a supply chain with a hybrid strategy is focused on all these aspects. It was found in this study that the strategic objectives reflecting a hybrid strategy from which performance measures

should be derived, in a humanitarian supply chain for an ongoing operation are cost efficiency, on-time delivery and quality of goods. To provide a balanced view of performance, performance measures should also be developed from the dimension of flexibility, which reflectes the ability of the supply chain to respond to external changes, and resources, which refers to the utilization of resources.

Performance measures should reflect the external and internal context in which the system operates. The context relates to the conditions under which the performance measures are implemented and used. The external context refers to the external environment, outside the control of supply chain actors, while the internal context refers to factors that can be affected by the organization and/or supply chain actors. It was identified that the external factors that characterize the supply chain context are infrastructure, geography, socioeconomics, governance and security. The state of these factors and their effect on the supply chain should influence the selection of suitable performance measures and their targets as well as set performance measures should allow for comparison under various operating conditions. Further, in this study it was identified that if the internal context of the supply chain is characterized by the level of staff turnover, the availability of technology and information, the level of coordination and collaboration, and the accuracy of demand planning. Performance measures should be adapted to the organizational culture and be integrated with existing reward structures. The performance measurement system has to be able to capture the needed data through available information systems and its design should reflect the interdependencies of different supply chain functions.