

## Applicability of Military Logistics Practices to Small Scale Apparel Industry of Sri Lanka having Agile Supply Chains

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## Abstract

Supply chain agility is achieved by enhancing the responsiveness and flexibility of a supply chain through fast and adaptive logistics and supply chain strategies. Supply chain agility is one of the vital aspects of the supply chain through which a firm can achieve competitive advantage, if the cost and risk involved is carefully managed.

Because military operations are carried out in an extremely risky and uncertain environment, supply chains found in military operations are designed with fast and adaptive logistics strategies, so that maximum agility can be achieved.

The objective of the research was to experiment the applicability of military agile logistics practices to the modern manufacturing supply chain (specifically for the small-scale apparel supply chain) and to identify potential differences between military supply chains and commercial supply chains.

The Sri Lankan small scale apparel industry is used as proxy to ascertain the level of applicability of these military practices because of the high level of risk and uncertainty in the industry. This risk is a result of the pressure exerted by both up and downstream members (suppliers and customers) of the supply chain.

A comprehensive literature review was conducted to identify potential military logistics strategies which could be applied in modern business environment, and six types of strategies were identified namely, Focus Logistics, Sense & Respond strategies, Performance Based Logistics (PBL), "Aufstragtaktik" strategy, "Blitzkrieg" strategy and Guerrilla warfare strategies.

A sample consisting a number of small-scale apparel firms were surveyed. Military logistics strategies were absorbed to the questionnaire through MCQs (with a Likert scale). The managements of small-scale apparel firms were entrusted with entering responses, followed by a detailed interactive interview session. Each firm was assessed by giving marks based on their level of compliance with military logistics practices.

A separate statistical approach was conducted to measure the agility of the firms in the sample, by measuring the coefficient of agility which was determined by the weekly market demand values experienced by each over the last seven weeks.

The marks obtained from the survey were cross-matched with agility coefficients of each firm. It was observed that firms which had already been following the selected military logistics practices involuntarily recorded higher coefficients of agility, whereas firms which were much deviated from the selected military logistics strategies recorded lower coefficients of agility.

Therefore, it was concluded that the selected military logistics practices could be applied to the modern small-scale apparel business environments to increase supply chain agility and minimize supply chain risks and uncertainty.

**Keywords**: Supply Chain Management, Agile Supply Chains, Responsive Supply Chains, Military Logistics, Focus Logistics, Military Business Applications