Research Focus Area Five Issues concerning supply chain cluster

Disruption, risks and security

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The importance attached to the focus on supply chain cluster disruption, risks and security is underscored by some of the emerging trends that are already visible at this juncture in China. In recent years, there are various kinds of serious disasters either natural (e.g., earthquake, typhoons, floods, drought) or man-made (e.g., the 9.11 event in the USA) occurring around the world with enormous consequence, such as the tsunami in the Indian Ocean (2004), the Hurricane Katrina in the US (2005), as well as the Sichuan earthquake and the global financing crisis in China (2008), which need quick-responsive emergency logistics systems for efficient disaster relief supply and recovery. For instance, the Sichuan earthquake and its aftershocks in 2008 has reportedly caused more than 80,000 deaths, and more affected people who had their homes and livelihoods destroyed. The critical issues underpinning supply chain risks and security, identified at the Hawaii Logistics Research Workshop, are summarized in Table 5. The operational changes arising from the eventuality of these known and unknown events will necessitate a re-examination of the structure, form and organization of the supply chain cluster, which is fast becoming institutionalized.

The issue is based on the practice in China, takes the coupling between industrial cluster and supply chain as the new angle using by the modern supply chain theory and industry theory, then brings forward the concept of supply chain cluster based on the domestic and international research of the two together, considering the supply chain cluster as such a organization: "originated but not limited to the enterprise, based on but not localized to the cluster". Therefore, the influences on both the operation performance internal and the environmental performance caused by disruption in the risk society are discussed.

Table 1. Critical issues over the next 5 -10 years on disruption, risks and security.

Known	Unknown/Speculative
Move toward 100% check	New pandemics
Robustness and Rationale for security investment	Emerging forms of disruptions
Uncertainties (with respect to logistics and network infrastructure development and support)	New technological flaws
Government mandates (security related)	Insurance Mandates and sustainable service
Cyber security	