



Study on the Concept of Supply Chain Security

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ABSTRACT

Companies have exposures in new regions and the global economy puts more challenges ahead. Securing the global supply chain and ensuring its smooth functioning is vital. Supply chain security refers to the efforts to enhance the security of the supply chain: the transport and logistics system. It combines traditional practices with the security requirements of the supply chain system, which are determined by threats such as terrorism, piracy, and theft. Since the terrorist attacks of Sept. 11, 2001, security has taken an important role in the global supply chain. Manufacturing, transporting, and delivering goods safely and securely is important as it has ever been. Therefore, an integrated supply chain structure is very essential to operating in a global market where risks proliferate. The objective of study is to study the concept of supply chain security. To highlight initiatives which have been taken for supply chain security globally.

KEYWORDS : Supply chain, security, global, logistics

INTRODUCTION

International trade is one of the key factors of global economic growth. In today's globalised world, the cargo supply chains are complex and involve a large number and variety of parties. Unfortunately, these supply chains are also exposed to danger such as theft, pilferage and in the worst of situations, exploitation by terrorists to fulfill their own ends. Protection and guarding against such scenarios is thus very vital as the worldwide trading system cannot pay for the cost of a destructive attack. To guard against such exploitations, the supply chain has to be protected. Supply chain security can only be achieved by looking at supply chains in entirety and not by focusing on single nodes and links in seclusion. It is often said that a chain is only as strong as its weakest link. Securing the supply chain involves the securing of every node and link along the chain, creating a chain of responsibility that extends beyond that of each individual node and its links. The securing of the supply chain must start with the safe and secure packing of shipment and consist of measures that prevent or provide alerts of any tampering or falsify of the shipment as it gradually moves from the point of packing to the final point of deconsolidation. Numerous countries and international organizations have developed or are developing programme that include strategy and best practices for ensuring the security of the cargo, processes, and human resources involved at every movement through the supply chain.

OBJECTIVES OF THE STUDY

- To study the concept of supply chain security.
- To highlight the supply chain security initiatives.

RESEARCH METHODOLOGY

For the fulfillment of the above objectives, data is collected basically on secondary basis. The secondary data for the study was collected from different sources such as trade journals, articles, internet, and books. The study is basically descriptive in nature. The period and data of the study is selected on convenience basis in order to fulfill the objectives of the study.

CONCEPT OF SUPPLY CHAIN SECURITY

With supply chains growing bigger and more intricate the possibility of supply chain disruption increases. When disruptions arise, companies need to have successful measures to prevent the loss of market share. This vital system provides the goods that deliver our domestic infrastructures and support our life. Other nations worldwide also rely upon the goods transported by the global supply chain system. Companies are highly dependent on their supply chains. Every company's supply chain is distinct, and measures taken to reduce risk will vary extensively from company to company. According to the Global Supply Chain Council- studies depict that one-third of companies that experience disruptions of supply, bear losses of business, lower stock returns and put stigma to its brand. Procurement and sourcing executives are on the front line in the tussle to recognize the particular supply-chain risks their companies bear and to plan strategies for minimizing it. Supply chains have a very high level of operational risk.

Security risk is a component of that risk picture; thus, Supply Chain Risk Management is the framework within which supply chain security is executed. Supply chain security refers to the efforts to boost the security of the supply chain: the transport and logistics system for the global cargo. It clubs together the traditional means of supply chain management with the security requirements of the system, which are determined by threats such as terrorism, piracy, and theft. Securing supply chains have been thought as a critical issue for international supply chain management in recent years following the quality management. Some analysts have raised concerns about supply chain security outfit. However, the supply chain security presently focuses on many individual measures rather than on a holistic approach. Therefore, to promote security effectively and systematically, an integrated framework must be recognized as assistance.

The usual supply chain security activities include:

- Credentialing of participants in the supply chain.
- Broadcasting and validating of the contents of cargo being shipped.
- Advance announcement of the contents to the destination country.
- Ensuring the security of cargo while in-transit via the use of locks and tamper-proof seals.
- Inspecting cargo on entry

THREATS AND RISKS:

Physical failure threats and risks

- Functional failure
- Incidental and malicious damage
- Transportation (robbery, theft, hijack)
- Terrorism

Operational threats and risks

- Control of security
- Human factors (e.g. poor communication)
- Activities that affect the organization's performance, condition or safety

Natural disasters

- May render security measures and equipment ineffective
- Factors beyond organizational control
- Failures in externally supplied equipment and services

SUPPLY CHAIN SECURITY MEASURES:

- Cargo Management
- Facility Management
- Information Management
- Human Resources Management
- Company Management Systems

The security measures that should be implemented:

Cargo Management – Protecting cargo during all stages of manufacturing, shipping and transport processes:

- Prevention, recognition and reporting of shipping process anomalies (routes and schedules continuous review; alerts management)
- Sufficient inspections during the shipping process (in points where liability changes, to packaging materials and vehicles before being in contact with cargo).

Facility Management – Guaranteeing the security of the facilities where products are produced and cargo is stored and maintained.

- Most favorable warehouse/terminal layout design (entry/exit controllability; clearly marked control areas; ample light conditions)
- Well-organized facility monitoring (24hr camera system, security guards, filming activities of loading containers).

Information Management – Protecting vital business data and extracting information as a tool for detecting illegal activities and preventing security breaches.

- High protection of business information/data (management procedures and storing methods designed to protect information from illegal access)
- Correct and complete recordkeeping of shipping information for prospective security audits (enhanced recordkeeping methods; quality control of records, error correction).

Human Resources Management – Guaranteeing honesty and security awareness of all personnel with physical or virtual access to the supply chains.

- Professional employee hiring / exit process (background checks; interviews).
- Proficient information spreading process (intrinsic and extrinsic publication of the company safety policies).

Company Management Systems – “Building security” into internal and external organizational structures and company management systems, including supplier, partner and client management processes.

- Satisfactory business partners evaluation system.
- Absolute company security management system (distinct security processes-indicators, and audits)

INITIATIVES TAKEN WORLD WIDE:

There are a number of supply chain security initiatives around the world today. These include:

The Customs Trade Partnership against Terrorism (C-TPAT), a voluntary compliance program for companies to improve the security of their corporate supply chains. (C-TPAT) program includes certain elements:

- General Security
- Conveyance Security
- Personnel Security
- Physical Security
- Information technology security
- Security Training and Threat Awareness

The World Customs Organization (WCO) adopted the Framework of Standards to Secure and Facilitate Global Trade in 2005, which consists of supply chain security standards for Customs administrations including Authorized Economic Operator (AEO) programs. WCO framework of standards

- Provide security and facilitate world trade
- Built upon joint customs and business pillars
- The Container Security Initiative(CSI), a program led by U.S. Customs and Border Protection in the Department of Homeland Security focused on screening containers at foreign ports.
- The World Customs Organization.
- Efforts for countries around the world to implement and enforce

the International Ship and Port Facility Security Code (ISPS Code), an agreement of 148 countries that are members of the International Maritime Organization (IMO).

- Pilot initiatives by companies in the private sector to track and monitor the integrity of cargo containers moving around the world using technologies such as RFID and GPS.
- The International Organization for Standardization has released a series of Standards for the establishment and management of supply chain security. ISO/PAS 28000 - Specification for security management systems for the supply chain, offers public and private enterprise an international high-level management standard that enables organizations to utilize a globally consistent management approach to applying supply chain security initiatives.

OTHER INTERNATIONAL SUPPLY CHAIN SECURITY RELATED APPROACHES:

- Authorized Economic Operators (AEO) – e.g. European Union AEO or Japan AEO program, etc.
- ISO 28000
- Transported Asset Protection Association (TAPA)
- Business Alliance for Secure Commerce (BASC)

Present supply chain security outlines numerous changes for how security in a supply chain should be approached. First, supply chain security should integrate not only theft prevention but also anti-terrorism measures. Second, the focus is now on global issues and not just national issues. Third, when planning uncertainty, the concept of crisis management is to be included. Last, security is not an internal corporate approach but rather an issue for all factors within the supply chain.

THE PATH- WAY AHEAD

For accomplishment of this strategy, all the efforts should be focused on important areas recognized during the development of the strategy. These are as follows:

Align central activities to the goals of the strategy and integrate global supply chain objectives into the investment programs and project assessment process.

Distill our perceptive of the threats and risks linked with the global supply chain through restructured assessments.

Upgraded research, development, testing, and appraisal efforts meant at improving and securing cargo in air, land, and sea environments.

Recognize infrastructure projects for the development of best practices.

Develop solutions with industry and foreign governments, to speed up lawful commerce in specific supply chains.

CONCLUSION

Today is the globalized business world. Supply chain is the core of business activities and its security is a mounting matter. This is the time for business and government bodies all around the world to connect together and answer the issue. The vulnerability, risks, uncertainties of the supply chain is transmitted to the transport, logistics and freight network. To add on to the actual threats, many factors make global supply chains complex and challenging. Many initiatives have been taken so far. And a continuous need is there to keep a watch on supply chain security. Supply chain security is indented to safeguard and reduce the supply chain from different threats of global world. Supply chains are framed so that they can put across the highest value even if there are numerous types of risks. Cooperation among supply chain security partners e.g., shippers, intermediaries, carriers, government agencies etc. is needed to secure the global supply chain. Also, an integrated supply chain structure is required to operate in a global market where risks proliferate.

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