

Improving Supply Chain Risk Management

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As risks in the supply chain increase, supply chain risk management has become more important, however, the connections between proactive and reactive actions have been scarcely studied.

Due to efforts in trying to minimize costs, including minimizing inventories and reducing supply bases, supply chains today are experiencing increased risks compared to the 20th century. In addition to this, a rise in natural and technological disasters contributes to an even more augmented risk situation. As a result, supply chain risk management (SCRM) has become increasingly important since this aims to handle the risks.

SCRM can be divided into proactive and reactive SCRM, as well as the connections between these. The proactive part is the actions taken to handle risks before they occur, while the reactive part is the actions taken to handle risks once they have occurred. Between the proactive and reactive actions, connections can be found when a proactive action has enabled a reactive action. If desiring to improve the reactive part, the connections are important in highlighting which proactive actions should be conducted.

Axis Communications AB (hereafter referred to as Axis) has been exposed to and has reacted to a number of disruptions throughout the years, although no evaluation has been done on the efficiency of its SCRM. Especially natural hazards have shown to be disruptive to the supply chain and have required extensive resources from Axis to be handled. In order to improve its SCRM, Axis has desired to get a better understanding of the connections. From this, Axis has desired guidelines on how it should work with the proactive SCRM to facilitate the reactive SCRM of supply risks.

To fulfil this purpose, a suggestion from theory on SCRM was created which was then altered accordingly to the findings at Axis. From theory, a suggestion on proactive and reactive SCRM, as well as the connections between these was generated. This was then compared to Axis handling of SCRM through a multiple case study on four supply disruptions, limited to natural and technological disasters.

Once the alterations of the suggestion on SCRM was conducted, the process of forming the guidelines for Axis was initiated. Based on the connections from theory and the case studies, a suggestion on guidelines was formed. These guidelines were evaluated through a survey and a workshop. The survey assessed the desirability of all guidelines, while the workshop evaluated the applicability of selected guidelines which at the time were not conducted at Axis. From this, a final version of guidelines was created and presented to Axis. Some of the proposed guidelines serve to create an overall structure for Axis' proactive SCRM, for example through implementing both a proactive and a reactive SCRM process, as well as creating goals and measures for the SCRM. The other guidelines cover the areas of collaboration, company culture, production, components and buffering.

Apart from creating guidelines, the study has contributed to research by extending the knowledge on the connections between proactive and reactive SCRM. To better reflect reality, a modified, and more iterative, reactive SCRM process is also suggested in which an implementation step is included. Moreover, the studied cases have provided several possible actions new to theory regarding proactive SCRM, for example owning production tools used by the suppliers, and reactive SCRM, for example sending employees to the disrupted supplier's site. The entire study can be accessed in the report *The Connections Between Proactive and Reactive Supply Chain Risk Management*.