

# RESILIENCE IN TRANSPORT SERVICES

— FOCUS ON CONSTRAINTS

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# ABSTRACT

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## **Resilience in transport services — focus on constraints**

The Swedish industry needs fast and reliable goods transport services. In this study, data from transport buying companies are analysed to assess if Transport Providers are able to keep up with industrial Buyers' demands of on-time, door-to-door service. Global coverage and competition are drivers not only for greater complexity, but also for the “leaning” of resources in organisations, both for Transport Buyers and Providers. How does this affect their interaction?

Since services are produced and consumed at the same time, service industries are particularly sensitive to imbalances between the demand for service and the supply capacity. Increasing work pressures have to be absorbed somehow, if business opportunities are not to be lost, or if quality is not to suffer. To increase utilization of capacity too much, though, can lead to unwanted constraints, commonly referred to as “bottlenecks”, manifested as queues, long waiting times, or fluctuating quality of performance.

Resilience is a property in both natural and man-made systems that can be described as the ability to bounce back in the face of adversity, a type of flexibility that is necessary for responding to increasing pressure and disruptive situations, and for company survival. Resilience is dependent on continual, long-term learning, and development of diverse capabilities, which I summarise as Problem-Solving Skills.

The main conclusion from the findings is that it is primarily the ability to solve problems, probably in combination with unsatisfactory availability of relevant information and / or communication that lies behind many performance problems. This indicates a “blockage” in the information flow to the decision-makers, and reveals that there is a lack in understanding how the system operates or functions.

This finding is significant. It indicates that some Transport Providers might have a lack of response flexibility, adaptability, and resilience, which could cost them loss in competitiveness and long-term survival.

*Key words: Resilience, constraints, bottlenecks, capacity use, reserve capacity, quality, coherence, problem solving, capability, customer satisfaction, productivity, information, communication, decision-making, policy, systems thinking, complexity, service industries, service operations, capacity management, sustainability, resource-based competition*