

#047 : Metrics for Supply Chain Resilience

Resilience, defined as the ability to recover quickly and effectively from a disruption, is critically important for supply chains. During this pandemic, companies must evaluate the resilience of their supply chains in order to build an effective recovery strategy.

Methods



Time to Recovery (TTR)

Time-To-Recovery (TTR) is defined as the time until a supply chain is fully recovered after being hit by a disruption. TTR metrics mostly take the form of time-based performance measures, such as minimum out-of-service time, leadtime ratio (a ratio between the promised and the actual lead-times), or maximum on-time delivery .



Recovery Level (RL)

Recovery Level (RL) is mainly defined as the fraction of the best case (baseline) performance that is recovered after some period of disruption. The performance measure in RL metrics often take the form of customer service level, fill rate, unfulfilled demand percentage/rate, or demand postponement rate.



Lost Performance during Recovery (LPR)

Lost Performance during Recovery (LPR) is mostly defined as the difference between the performance that is affected by a disruption and the baseline performance, but this difference is only considered during the recovery period.



Net Present Value of Loss Profit (NPV-LP)

In simplified terms, the Net Present Value of Loss Profit (NPV-LP) can be defined as the discounted present values of lost profit during the disruption. The lost profit can be defined as the difference with the base line performance.