Process Mining for Logistics Guide

Learn how to:

• Identify and remove process bottlenecks to make deliveries faster
• Optimize warehouse locations
• Identify relevant data for logistics process improvement
Challenges in Logistics

**On-time delivery fails**
- Goods are delayed, lost, or damaged during shipment.
- Goods are delivered to the wrong destination.
- Wrong goods are delivered.
- Order amounts are not met.

**Too high warehousing costs**
- Organization cannot pinpoint from which warehouse or distribution center the problems originate.
- Mistakes in sorting and inventories.
- Too high warehouse levels.
- Vessel capacity is too low.

**Difficult to manage Supply Chain**
- Too high transportation costs.
- Rules and regulations are not followed.
- Too much data in operative business systems about supply chain performance and key influences.
- Logistics data is rarely used for process improvement.
- No proper visibility to ERP - what logistics data it actually contains and what can be drawn out.
- Strategic objective to develop new supply models to address gaps in existing delivery capabilities or to move from Make-to-Stock to Make-to-Order supply model.
- No clear visibility to supply chain.
- Production is halted due to missing raw materials.
This is what your data shows your process is like.

This is what you would often expect to get when asked to describe your process.
Finding: **Category = Women** is the biggest root cause for Product Returns. **Product = Road** is the second biggest root cause.
You can double-check your findings by focusing on particular case attributes.

Confirming a finding: Cases where **Category = Women** are more prone to end up returned than cases where category is Men or Children.
You can double-check your findings by focusing on particular case attributes.

Confirming a finding: Cases where Product = Road are more prone to end up returned.
Dependency between process steps and successful process execution

Sometimes the problems in your process are not explained by the case characteristics (=attributes) but the process steps taken.

Here cases where shipment method is (Train) Essen (=cases go through process step Shipment (Train) Essen) they are more likely to run late than other cases.
Finding: Cases where Customer = Bauhaus are more prone to be changed (go through process step Order changed)
Finding: Cases lasting 10 weeks or longer commonly have characteristic Category = Women.
QPR Process Mining Benefits for Logistics

On-time delivery +13%
- Goods delivered on time.
- Order amounts are met.
- Right goods delivered to right destinations.

40% savings in warehousing costs
- Less mistakes in sorting and inventories.
- Warehouses on adequate level.

20% wider geographical reach
- Optimized warehouse and distribution center location.
- Adequate vessel capacity.
Customer cases – Nokia & Terumo Europe

https://www.qpr.com/customers/nokia

https://www.qpr.com/customers/terumo-europe
How can we help?

› Do you have questions regarding this Process Mining for Logistics guide?

› Would you like to speak to our experts to learn more about how process mining can help improve your logistics or supply chain processes?

Chat with us today