TU e Technische Universiteit Eindhoven University of Technology

Data for Compliance in E-Commerce







istia

GLOBAL FORWARDING



Erasmus University Rotterdam





Where innovation starts



Research motive

- Increasing volume of e-commerce shipments

- Customs declaration to process for each shipment
- Very little information for risk assesment

Pressure on customs' systems to process all shipments
High number of false positives in inspections

- Current method of risk asssement is inadequate

- New approach to risk assessment is required.



Solution strategies

- Authorized Economic Operator (AEO- existing already)
 - Procedures of shippers and forwarders are trustworthy. Information from AEO-certified companies can be trusted. Companies receive some benefits.

Dual Filing (CORE Project);

- Shippers and forwarders provide additional information (orders, invoices, packing lists) to customs at the same time as formal customs declaration.
- Risk assessment is still defined on the declaration, but selected shipments can be assessed based on additional information.
- No or minor delays in physical flow of goods

- Risk assessment at forwarder (this project)

- Forwarders use all information they have about shipments they handle to make risk assessment agreed with customs.
- Customs does not select these shipments in risk assessment.
- No delays in physical goods flow.



Research Objective

To develop a risk assessment procedure that uses available information in the transport chain by distributing risk analyses among supply chain partners and reduces the number of false positive inspections.



Research Questions

- 1. What information on shipments is available in the ecommerce transport chains and how is this information currently used for customs declarations in the Netherlands?
- 2. Which information available in the chain would be helpful to improve Customs' risk assessment and is currently not provided to Dutch Customs and to what extent does the application of these data lead to considerable improvements in risk analysis and inspection results, i.e. a lower level of false positives?
- 3. How can (parts of) the risk assessments be delegated from Dutch customs to other parties in the transport chains?
- 4. How can the concepts and results developed in the ecommerce supply chain be generalized and applied in other goods flows?



Research Approach

- Empirical studies
 - Analysis of data availability and use of data
 - Case studies: DHL, Gaston Schul, additonal chains
 - Air Cargo and Maritime Cargo
- Risk analysis model simulation study
 - Impact of information quality on risk analysis
 - Network model: impact of distributed risk analysis
- Governance and responsibilities
 - Discussion between Customs and private sector
 - Assessment of feasibility in UCC
- Information architecture for sharing data
 - Risk analysis data



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