

# TradeLens: Potentials and influences of value creation

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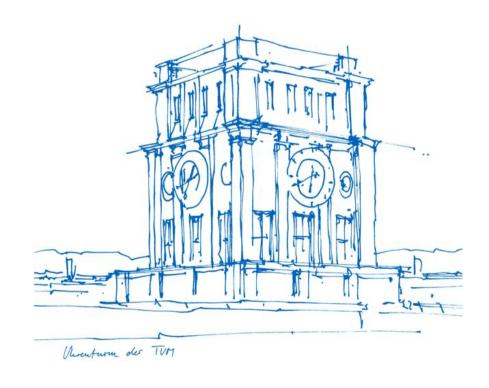
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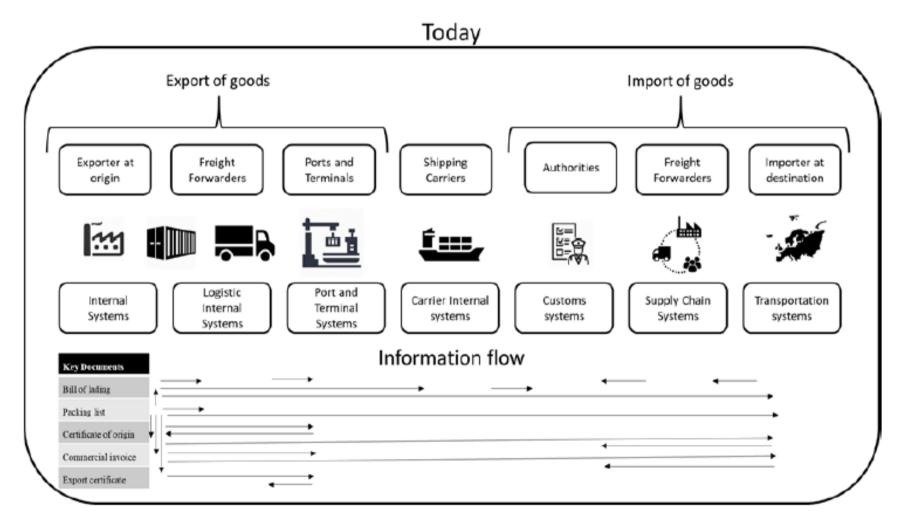


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Figure 4: Example of the Flow of Information for Container Shipping<sup>18</sup>



Source: (Jensen, Hedman, & Henningsson, 2019)



1.1. TradeLens and Global Supply Challenges

### Problem Statement: Global Supply Challenges

#### **Challenges:**

- Annual Administrative Costs
- Unpredictable Arrival Time of Goods (Bad tracking)
- Comprehensive Monitoring Schemes Due to Security Concerns

#### Causes:

- (1) Each organization in the chain uses its own IT system
  - → Digital information documenting the process exists for purposes of internal storage only
- (2) No existing standards for documentation
- (3) Wide amount of (key) documents need to be updated by multiple parties
- (4) Regulations often demand original papers with stamps and signatures



1.1. TradeLens and Global Supply Challenges

### Solution: TradeLens

## TradeLens

SIP:
Documenting and
Sharing shipping
information
among Key
Players

PT:
Encrypting and sharing trade documents to a specific group of key players

Open, neutral, and distributed platform for container shipping, underpinned by blockchain technology connecting the entire supply chain ecosystem.



## 1.2 Potentials Leveraged Through TradeLens

Organizational Benefit	Potential(s)
Digitizing information of key events during shipping (container departures and shipping lists)	Simplifying Automate
Making available digital information of key events during shipping	Geographical Precise Transform
Permissioned document and information sharing	Informate – down, up
Secure, encrypted, authenticated, verifiable Documents	Automate Transform
Distributed platform solution for the container shipping process	Integrate Simplifying



## 1.2 Potentials Leveraged Through TradeLens

Organizational Benefit	Potential(s)
Authentification and access control through the blockchain network	Information – up Automate Transform
Reducing non-tariff barriers to trade while making regulatory compliance efficient	Simplifying
Interoperability through promotion and adoption of industry standards	Integrate
Digitalized shipping process	Automate Integrate Transform
Smart contracts	Geographical Automate Simplifying Information – down, up



#### 1.3. Influential Factors for Value Creation

Thinking differently about strategy (Consider Blockchain technology in strategic plans)

Shift in Focus: Concentrating on the vision instead of ROI

Building a trust foundation among participants

Building trust towards new technologies (Blockchain)

Fitting (evolving) the governance model as adoption expands



## 1.4 Hindering Factors of Value Creation

## 1. Concerns about the Technology

- Reluctancy for "putting down the first mile" of the shipping information pipeline
- Lack of standards for trade data

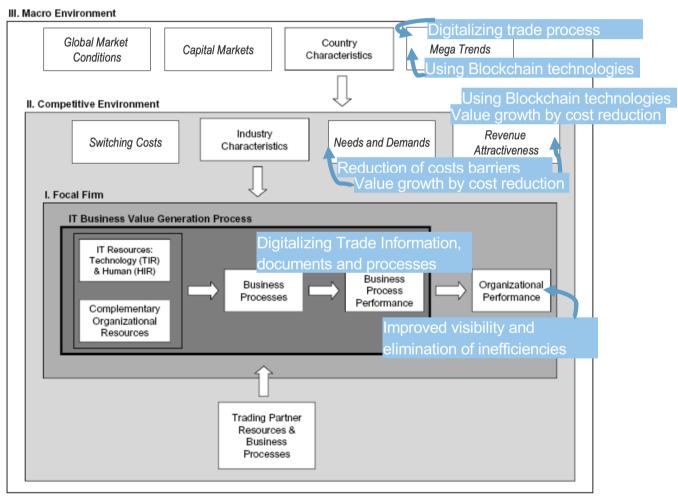
## 2. Reluctancy to Trust Digital Trade Documents Shared via Blockchain

- Skepcis between competitor stakeholders
- Fear for jobs to be jeopardized
- Missing (updated) regulations for Digital Documents

#### 3. Double Network Effect



## 2. The Value of IS in Todays' Business Environment through the TradeLens example



Source: Melville et al. (2004); Osterwalder, A., & Pigneur, Y. (2010)