Cargo handling in global acting ports and its challenge in a digitalized world

New Delhi, September 2018, Jan.Hoffmann@UNCTAD.org
Stages of digitalization impact

- Optimization
- Extension
- Transformation

Challenges

- Interoperability
- Competition
- Development
Three stages: The impact of Digitalization

- **Optimization**: Maximizing efficiency and reliability in existing processes.
- **Extension**: Moving beyond efficiency to capture new sources of value.
- **Transformation**: Reinventing the company’s business model to capture new data-driven revenue streams.

Source and further reading: https://t.co/vbHAdYaSWf
Optimization

Example: Port call optimization

“Port Call Optimization is about optimizing speed, draught and port stay, leading to lower costs, cleaner environment, more reliability and safety for Shipping, Terminals and Ports”.

https://portcalloptimization.org/
“An important driver for the **optimization of port calls** is that relevant data is shared in advance. This enables better planning of berth occupation, availability of equipment, labour resources, as well as stowage planning and the subsequent distribution and delivery arrangements (...).”

Source:

**Further reading:**
MarineTraffic:  
www.marinetraffic.com/blog/
Rotterdam PCO:  
UNCTAD Transport and Trade Facilitation Newsletter:  
UNCTAD Liner Shipping Connectivity Index - LSCI

Optimization...

LSCI on-line: [http://stats.unctad.org/LSCI](http://stats.unctad.org/LSCI) (2018 data will be uploaded on 3 October)
Watch this space: twitter.com/UNCTAD_TLB

Shipping is increasingly using new technologies: Why? What are the opportunities and challenges? How to leverage them effectively? Check out the @UNCTAD Review of Maritime Transport 2018 on 3d October: unctad.org/rmt #RMT50 #Shipping #Digitaltransformation
Extension

“Action opportunities”

Further reading: [http://globalmaritimeforum.org](http://globalmaritimeforum.org)
Transformation

“There is an increasing desire and feeling of urgency among leaders to embrace digitalization, to better understand the implications, and to transform the enterprise to respond to the new reality.”

Further reading:
WEF:
https://twitter.com/W_Lehmacher
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For your agenda
Interoperability

How can we ensure interoperability?

► A role for global standards
► Challenge of cybersecurity

Further reading:
UN/CEFACT: https://www.unece.org/cefact/
https://www.linkedin.com/in/crammartos/
Competition & Cooperation

We want to encourage technological progress without creating monopolies

Further reading:
Global Maritime Logistics Dialogue:
Challenges and opportunities for Developing countries

► Leap frogging?
► Open up or protect?
► The right mix of global and national rules?

Further reading:
E-Commerce Week https://unctad.org/en/conferences/e-week2018
Trade facilitation trade-off?
TF measures help!

- Improve revenue collection
- Improve controls
- Improve security
Trade Facilitation for E-Commerce

► All 37 trade facilitation measures included in the TFA have a positive correlation with e-commerce
Trade Facilitation for E-Commerce

The top 4 measures with the strongest statistical “impact” (correlation) on the UNCTAD e-commerce index:

- Border agency cooperation (Article 8): +77%
- Publication (Article 1.1): +71%
- Single Window (Article 10.4): +66%
- Expedited shipments (Article 7.8): +61%
The mindset

► How to set today’s rules for the future?

Technological progress will never be as slow as today
The negotiation, ratification and implementation of conventions take time.

Need to commit to whatever is the best future technological solution.
Out of date already?

In the future the concept of “copies” versus “originals” as per Article 10.2 TFA will become obsolete as processes focus on data rather than on documents.
Out of date already?

The same will apply to “information technology to support the single window” as per Article 10.4, as focus shifts to data and information on a **distributed** ledger.
A dynamic dimension in the TFA

► In the long term, Article 10.1 will gain in importance, it does not prescribe any specific technological solution.
A dynamic dimension in the TFA

► In the long term, Article 10.1 will gain in importance, it does not prescribe any specific technological solution.

► Progressively, various provisions will become antiquated or obsolete and we will just want to **minimize** “the incidence and complexity of import, export, and transit formalities”; continuously “**review**” requirements; keep “**reducing** the time and cost of compliance for traders and operators”; and always choose “the **least** trade restrictive measure” (10.1 TFA)
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