

Lorange

The logo for Lorange features the word "Lorange" in a grey, sans-serif font. A thick red horizontal bar is positioned behind the letters "o", "r", "a", and "n". To the right of the word, there are five horizontal blue lines of varying lengths, stacked vertically, resembling a flag or a stylized graphic element.

**Institute of Business Zurich
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THE PORTS OF THE FUTURE

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Let us keep in Mind

- Ca. 2/3 of the Earth's surface is covered by water
- More than 90 % of globally traded goods are transported by sea
- Shipping: most often the cheapest alternative
 - But, it must also be the best! Therefore, also, efficient ports are key!
- China, and South-East Asia are now dominating the statistics regarding ports, but North-European ports, including Danish, are also key, especially for short-sea trade!
- So, European ports are important!
- Europe: “Hub / Spoke” concept. Rotterdam / Antwerpen / Hamburg vs “the rest”. Key: short-sea business!

Some generally rather bleak observations re. today's situation

Generally dismal rates in shipping!

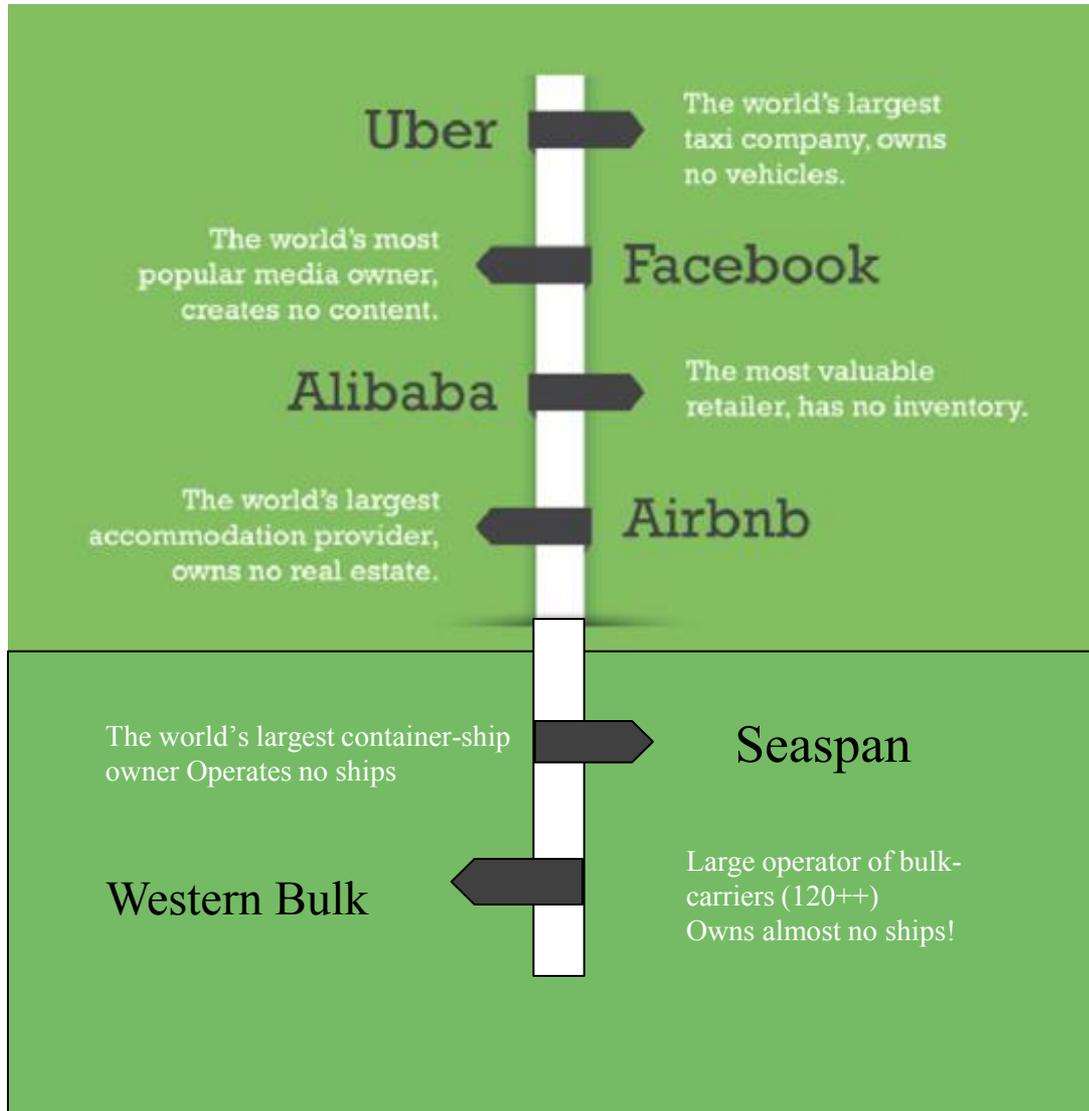
The shipping industry is in a deep crisis! This has implications for modern ports too.

- So far, shipping companies have generally based their strategies on each single ship, as the unit of analysis
- Now, a fleetwide approach seems to be needed! And, the modern ports are becoming integral parts of those emerging logistics chains!

Modern Ports can ameliorate (in part) the Generally Pesimistic Shipping Industry Sentiment

- In part, cut costs! Lowest cost matters!
- But, increasingly important, focus on relevant innovations - the the market is willing to pay for additional offering from ports, where these:
 - Serve entire company fleets
 - Offer integrative logistics: warehousing, tracking, etc.
 - Provide top-efficient loading/unloading means
 - One-key solutions
 - Stevedoing
 - Repairs
 - classification

Key: Commit less capital - improve performance!



Network value

vs.

Asset value?

Let us now make a generalization regarding effective innovations

1. Start with the customer

- Which needs does he have?
- What is he willing to pay for?

- Who is the customer?
 - Shipping companies?
 - Shippers?
 - Handling agents?
 - The final customer?
 - The port itself? (employees, unions, ...)

1- Cont. So, what are some preliminary implications?

Our customer shall appreciate:

- Givens for the Shipping Companies:
 - The oil price. But, this is not a factor under our control!
 - The shipping market rates: Again, not much under our control!
- We can impact:

A. The ship design

- Propulsion
- Ship design (Aquadynamics, holds)
- Coating / Friction reduction
- Equipment (Cranes); loading/unloading capabilities - particularly key for ports!

2. Come up with Innovations that the customer needs and is willing to pay for

3. Communicate these innovations fast and effectively

- Through social media
- Through the web, App
 -
 -
 -

4. Result: you become more competitive!

So, what are some preliminary implications?

A. Managerial

- The customer contacts! We (the ports) must have relevant organization and competences to solve their (the shipping companies, other customers') challenges and problems!
 - cross-functional competences / teams
- The classical harbor: often set roles, silos: a dilemma (must not become a filter/sleeping pillow!)

B. Anti-pollution

- Legislation
- Low-pollution “footprint”

Continuation

C. Technical / automation / less people

- Cranes for rapid loading/unloading, such as for containers!
- The loading/unloading equipment on many modern SS Ships is increasingly competitive
- Warehousing
- Port lay-out

D. Computer-based support - becoming the key!

- Keep track of things!
- Coordinate

A good example of a modern, relatively small bulk-carrier: the new F-500 series, developed jointly by Briese, Krey and Auerbach (Leer, Germany)

- Based on the proven E/F series
 - 80 SSS ships are floating
- Innovations
 - To save regarding development of costs: consortium for development (3 parties)
 - New cranes, from Liebherr: loading/unloading time cut in half!
 - All hull lines redrawn: aquadynamics
 - New main engine (MAN): 2 stroke / long bore / slow in revolutions (94 per minute). But, is this reliable enough?
 - New propeller (Wärtsilä)
 - New performances monitoring / trim system
 - Large main cargo hold
 - ❖ Several relatively smaller innovations add up to one disruptive innovation!
 - ❖ Fuel savings 25 % ++ compared to E/F!



The winning culture for Modern Ports

- Listen better - through direct contact with the customers.
- Learn faster, from the customer: “we are in the same boat”!
- Innovate faster as a consequence, and communicate!
 - Accumulate several relatively smaller innovations into one bigger one!
 - 2-way communication: the web, social media.
- Ameliorate traditional bottle-necks, say, in one’s organization!
- In general: be fast! Open -minded! What about the classical union-based port culture?