Design of value chains in volume-intensive market segments – exploiting economies of scale, scope and integration

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Agenda

1. Why study design of value chains
2. Research approach and design
3. Research findings and contributions
The competitive landscape in the wood value chain is seeing substantial change requiring suppliers and customers to design more complex value chains.

**Changing landscape...**

- Increased consolidation with fewer and bigger actors along the different steps in the value chain
  - Wooden-based companies face fewer and larger potential volume customers
  - Large mega-retailers have no longer the same options to play different suppliers against each other
  - Competition is enhanced by increased globalization

**...requiring to re-think traditional strategies**

- **Economies of Scale**
  - Sawmills

- **Economies of scope**
  - Wood components manufacturers

- **Economies of integration**
  - Secondary product manufacturers

Unexplored competitive advantage:

- Building new constellations
- Developing augmented product-service solutions
- Increasing availability
Our paper describes a business case which is a cooperation between two suppliers and one customer.

**Supplier side**
- Sawmill company
  - Solid finances
  - Large scale orientations
- Wooden component manufacturer
  - Small-scale
  - Not able to function on its own as a partner to the large customer

**Customer side**
- Mega-retailer
  - Solid finances
  - Focus on large volumes

- Case studies semi-longitudinal describing development from 2002-2010
- Case studies based on data collected through 14 in-depth interviews with management personnel plus additional follow-up discussions
Production layout of wood manufacturer involved standard and adapted machines and flows = asset specificity

- Customer and product requirements demanded the creation of highly specified production layout.
- Standard machines and high automation created asset specificity.
- Established barriers of imitation
- Obstacles:
  - From bulk to product
  - Competence in purchase
  - Professional company
Design more complex value chains change traditional roles

**Changed roles**

- **Sawmill company**
  - New customer segments
  - Higher focus on legal agreements

- **Wooden component manufacturer**
  - Large-scale volume
  - New products
  - From bulk to products
  - New supplier contracts/ sourcing
  - Company role

- **Mega-retailer**
  - New role as value chain coordinator
  - Changed relationships

Large change for both customer and suppliers
- Suppliers need to re-think their traditional way of considering products
- Customer change role to coordinator to support value chain development
- Economies of integration from opportunity of planning and managing the chain
From buyer dominant to more balanced supply chains also in the wood products industry

The development in supplier relations has moved towards a more balanced state due to:

- Consolidated market with large buyers and suppliers
- Focus on low-cost in combination with reliability

**Economies of scale**
- Bulk products
- Arms-length relations
- Competitive market
- Buyer dominant

**Economies of scope**
- Adapted products
- Partnership relation
- Supplier groups
- Buyer dominant

**Economies of integration**
- Adapted products
- Dyadic relation w. third party
- Balanced relation
Our research makes first steps towards describing the design of more complex value chains (and business models), with more than two partners involved.

Example of hygiene factors for small-scale partner
- High access to raw material
- Right equipment and possibility for automation
- Long-term contracts

Results of new value-chain design
- Stability (opportunity for planning)
- High capacity
- Flexibility
Thank you! Any questions?