



Offshoring, reshoring **and** **innovating** Nordic manufacturing businesses

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Content

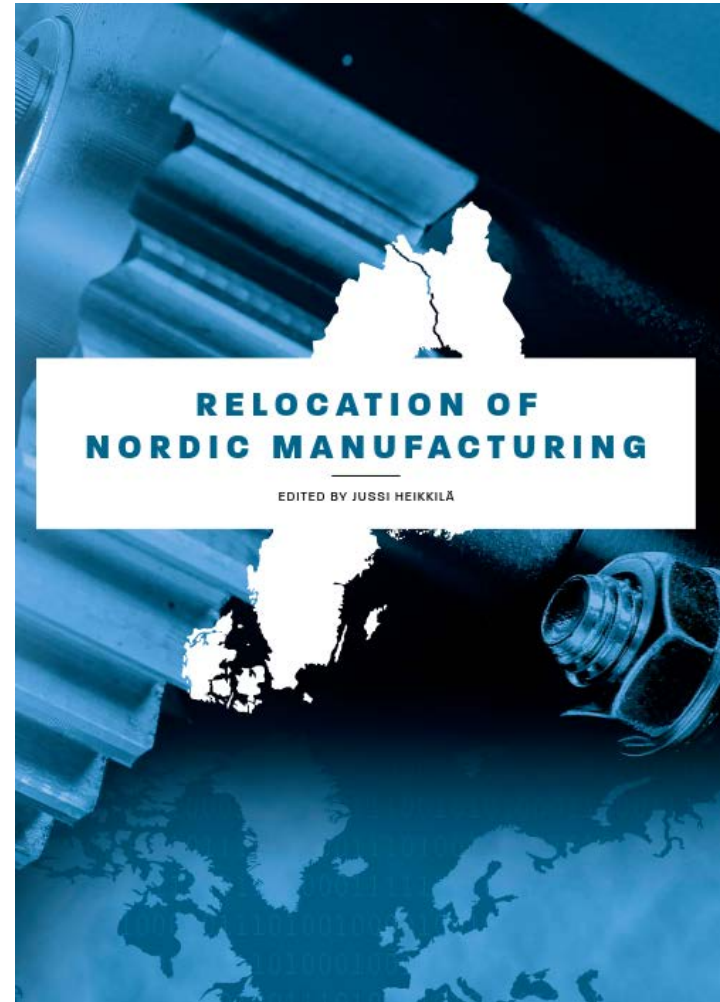
- **Background:** research on the relocation of Nordic manufacturing
- **Challenge:** Deciding on the investment concerning relocation AND manufacturing innovation
- **Necessity:** Activating innovations that match the relocation drivers
- **How?**



Background: research on reshoring of manufacturing (Roaming, 2015-17)

- Offshoring and reshoring patterns
- Innovations in manufacturing and business ecosystems
- Profitability implications

- TUT: Prof. Jussi Heikkilä; Prof. Miia Martinsuo; Prof. Petri Suomala
- LUND: Prof. Jan Olhager
- SDU: Prof. Jan Stentoft



Drivers for relocation

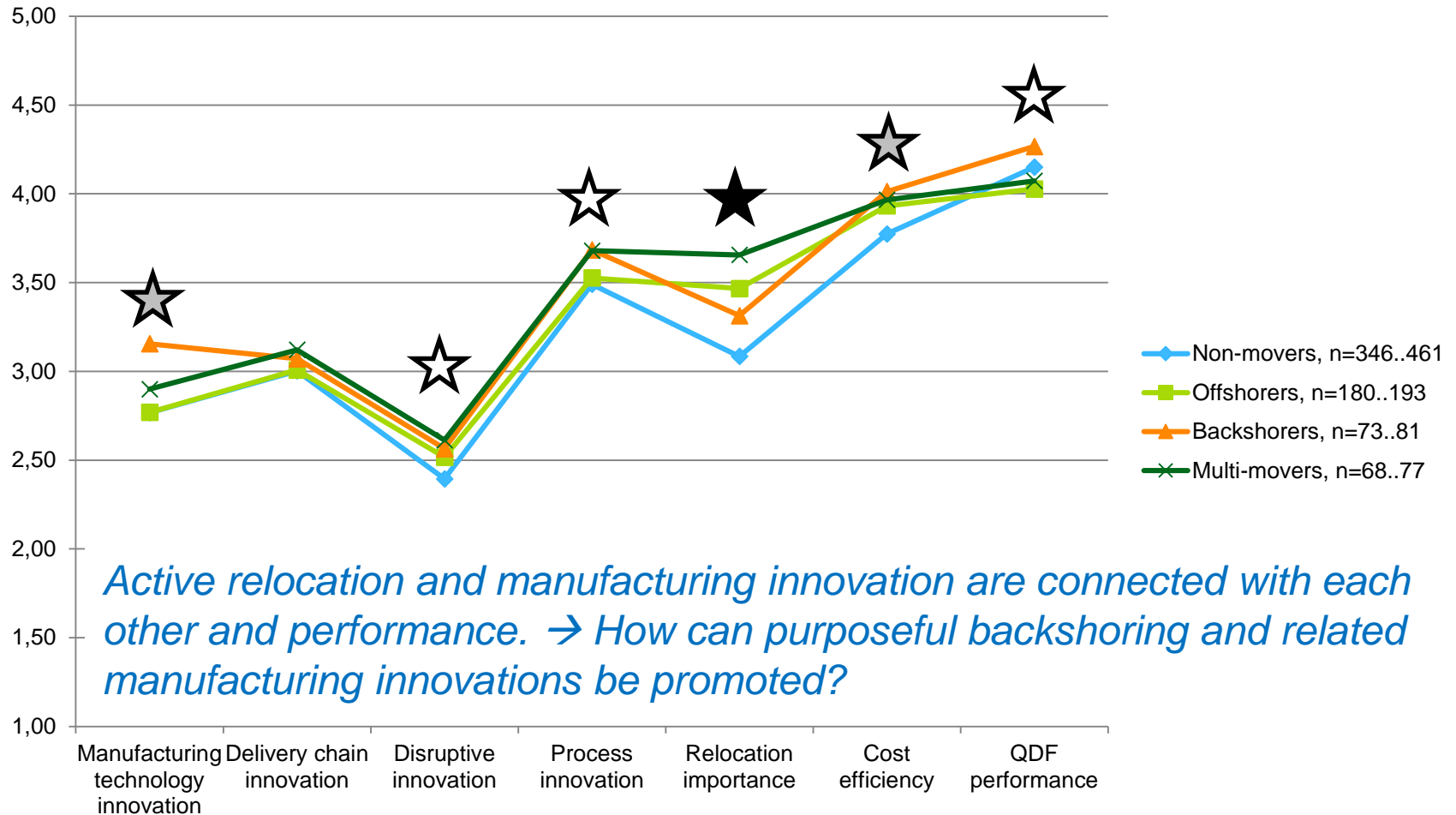
Cost

vs.

Capability



Relocation profile differences in manufacturing innovations and performance



Challenge

Offshoring / keeping



Cost as the driver vs.



Process and delivery
chain innovations?

Backshoring / keeping



Capability as the driver



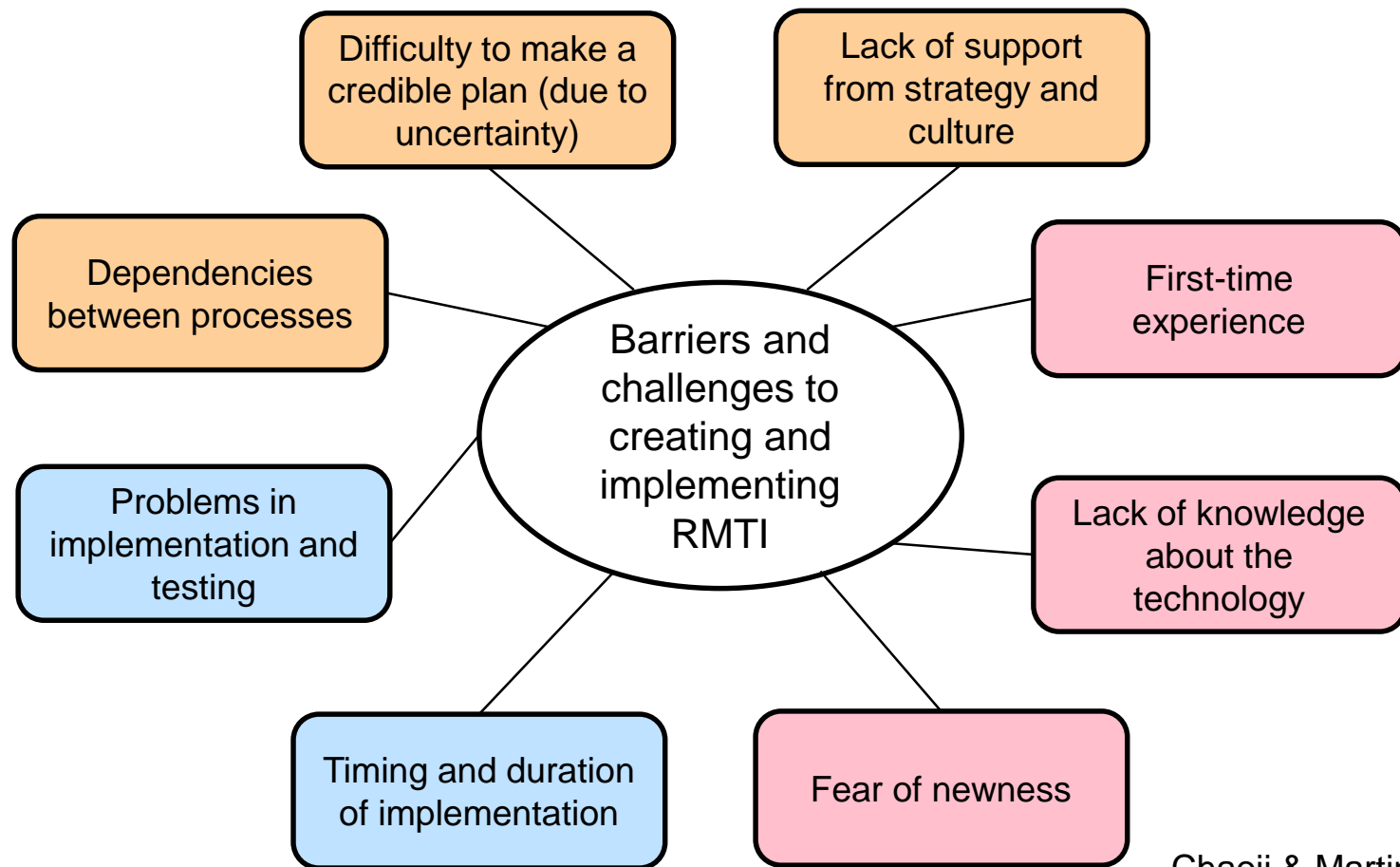
Manufacturing technology
and disruptive/value
innovations?

Features of the (relocation) context: known or unknown?

Evolution / development of the context, and available support?



Challenges in implementing radical manufacturing technology innovations



Chaoji & Martinsuo (2016);
Martinsuo & Chaoji (2017)



Different types of manufacturing technology innovation processes

	Established technology in the industry	New technology in the industry
Known by the equipment supplier	LOW NOVELTY RMTI 8, procurement 10, procurement 16, procurement 17, procurement 19, procurement	MEDIUM NOVELTY RMTI 2, <i>procurement</i>
New to the equipment supplier	MEDIUM NOVELTY RMTI 5, development 6, development 11, development 13, development 20, development 21, development 22, development	HIGH NOVELTY RMTI 1, invention 3, invention 4, invention 7, invention 9, invention 12, <i>development</i> 14, invention 15, <i>development</i> 18, <i>development</i> 23, invention

Chaoji & Martinsuo (Forthcoming)



Conclusions and policy recommendations

Recommendations

Promote manufacturing investments holistically (be it relocation or innovation)

Promote learning across companies in manufacturing innovations, and develop the innovation front end

Develop new knowledge and capabilities for systemic manufacturing innovations for different innovation goals

Underlying conclusions

- Active relocation and manufacturing innovation appears connected with each other and performance.
- *How can purposeful backshoring and related manufacturing innovations be promoted?*

- Uncertainty and novelty generate challenges. Challenges and success factors of manufacturing innovations emphasize experience, strategy, risk sharing and networks.
- *How can the success factors of radical manufacturing technology innovations be enhanced in different types of firms and relocation strategies, in uncertain conditions?*

- Different strategic drivers imply different innovation goals and they, again, require specific types of innovation processes. Many of them are systemic in nature.
- *How can the manufacturing innovation processes be best matched with the strategic/relocation goals?*



More information

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