Ecosystem acceptance of digital servitization: How does a new smart service gain legitimacy?

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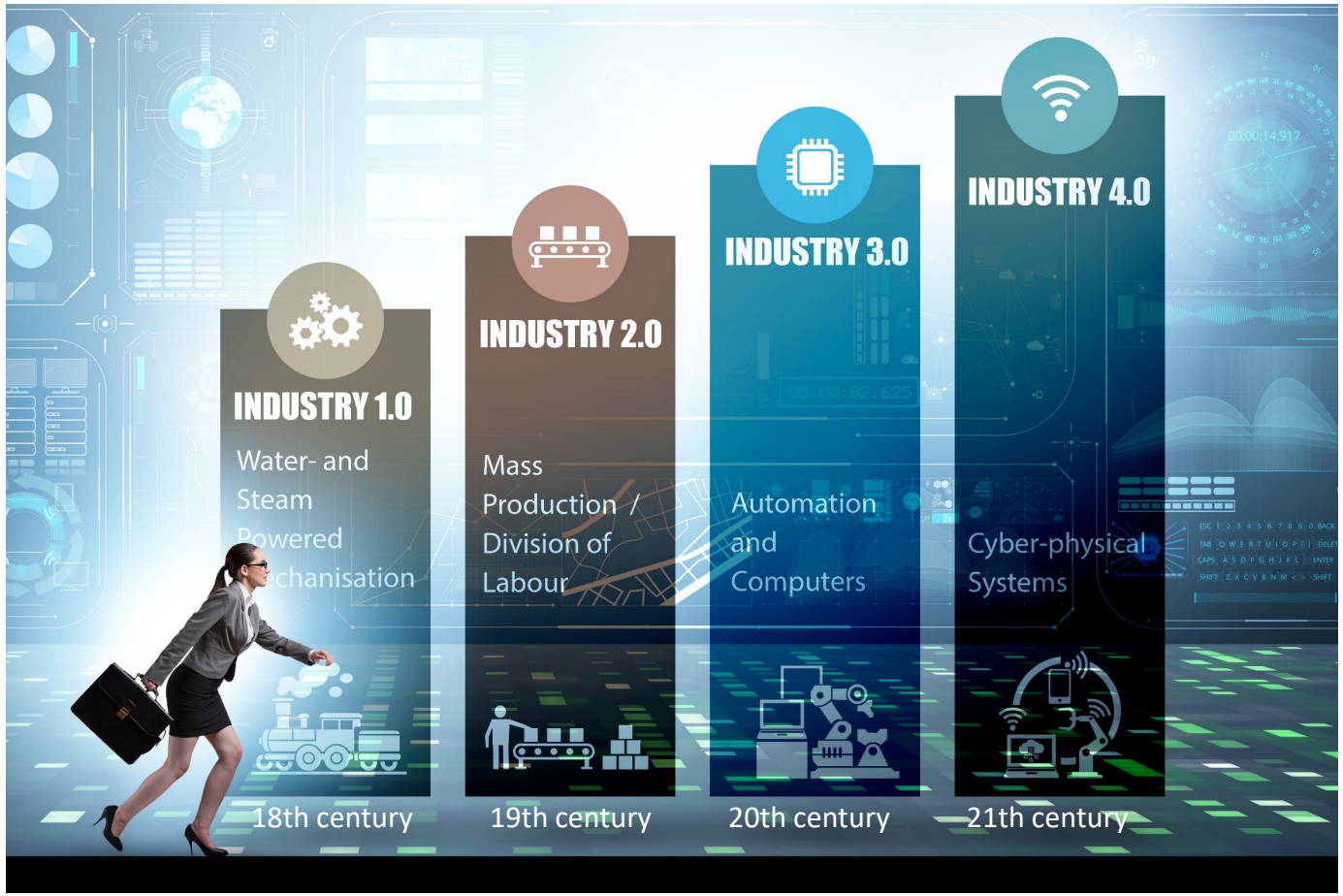
Digitalization is nothing new: Connectivity drives the current industrial revolutions in manufacturing



Digital technologies

Servitization

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Vendrell-Herrero, F., Bustinza, O. F., Parry, G., & Georgantzis, N. (2017). Servitization, digitization and supply chain interdependency. *Industrial Marketing Management, 60, 69-81*
Kamalaldin, A., Linde, L., Sjödin, D., & Parida, V. (2020). Transforming provider-customer relationships in digital servitization: A relational view on digitalization. *Industrial Marketing Management, 89, 306-325*
Coreynen, W., Matthyssens, P., Vanderstraeten, J., & Van Witteloostuijn, A. (2020). Unravelling the internal and external drivers of digital servitization: A dynamic capabilities and contingency perspective on firm strategy. *Industrial Marketing Management, 89, 265-277*
HERMANN, M., PENTEK, T. & OTTO, B. Design Principles for Industrie 4.0 Scenarios. 2016 49th Hawaii International Conference on System Sciences (HICSS), 2016-01-01 2016. IEEE.

Connectivity enables Smart Services.
Actors in ecosystems can now coordinate worldwide in real-time with data and connected products

Smart products generating data

Connectivity to service

Machine to Machine

People to Machine

People to People

Condition-based maintenance

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CLASSEN, M. & FRIEDLI, T. 2021. 'It's not like we can charge for everything': revenue models to capture value from smart services in Pacific Asia. Asia Pacific Business Review, 1-26.

Coordination requires change in the ecosystem interactions

We know

- digital technologies can facilitate servitization and the implementation of new business models
  - but we still have limited knowledge on the ecosystem responses
- the success of new service offerings and corresponding business models
  - will be influenced by and influence the surrounding ecosystem of actors
- that the new offerings will need to be accepted by other ecosystem actors

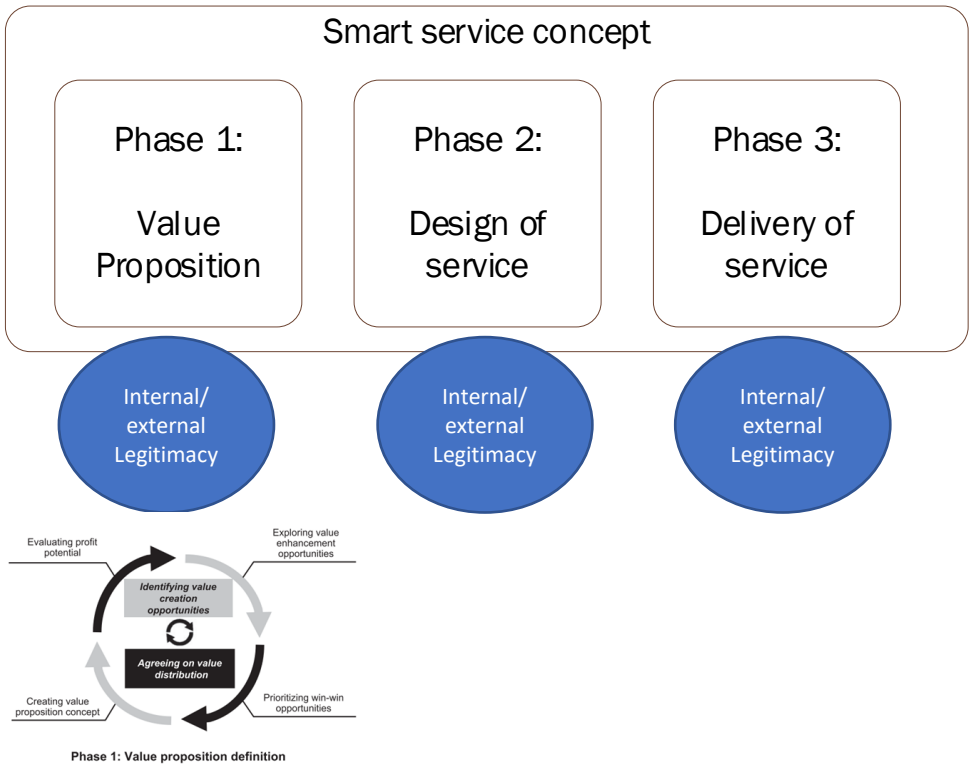
We do not know

- how manufacturing firms can build ecosystem legitimacy in the context of digital servitization

RQ: How do new smart services introduced by manufacturing firms gain legitimacy in established ecosystems?

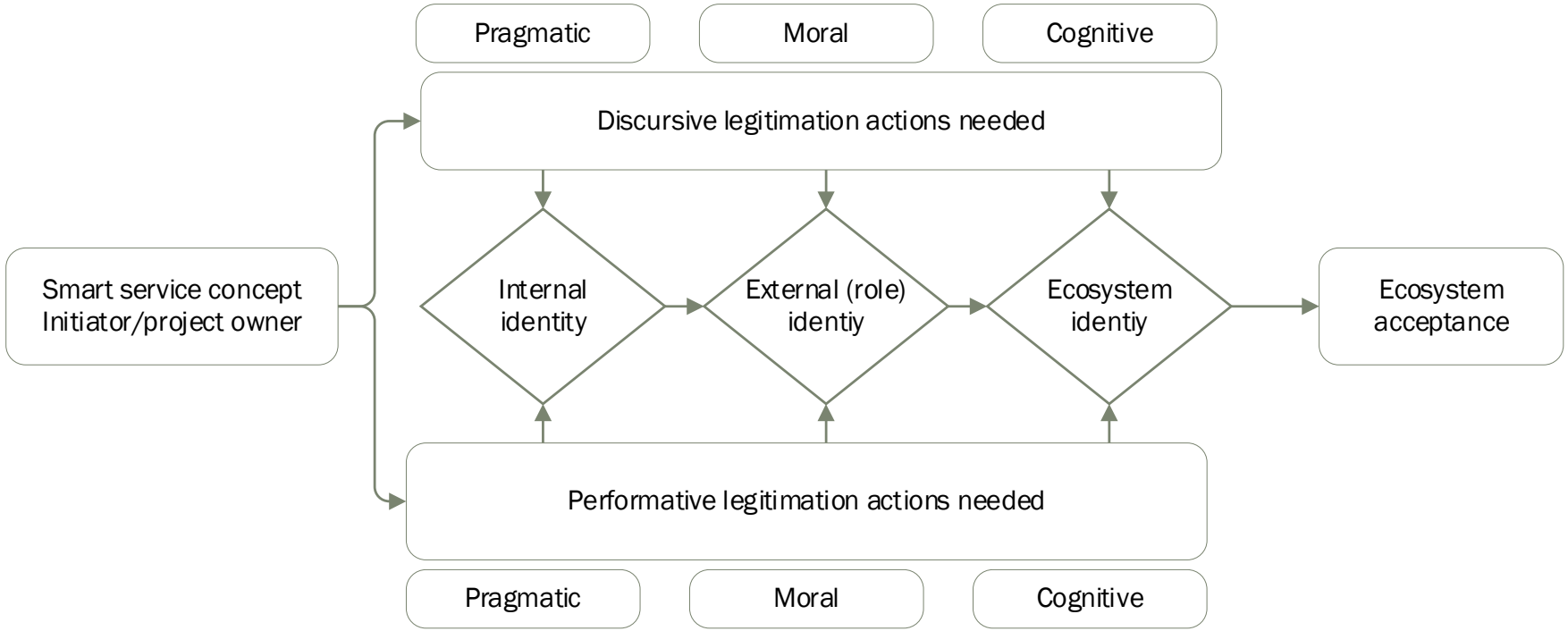
AAS, T. H., BREUNIG, K. J., HELLSTRÖM, M. M. & HYDLE, K. M. 2020. SERVICE-ORIENTED BUSINESS MODELS IN MANUFACTURING IN THE DIGITAL ERA: TOWARD A NEW TAXONOMY. International Journal of Innovation Management, 24, 2040002.
GÖLGECI, I., ALI, I., RITALA, P. & ARSLAN, A. 2021. A bibliometric review of service ecosystems research: current status and future directions. Journal of Business & Industrial Marketing, ahead-of-print.
KAPOOR, K., BIGDELI, A. Z., SCHROEDER, A. & BAINES, T. 2021. A platform ecosystem view of servitization in manufacturing. Technovation, 102248.
KAMALALDIN, A., LINDE, L., SJÖDIN, D. & PARIDA, V. 2020. Transforming provider-customer relationships in digital servitization: A relational view on digitalization. Industrial Marketing Management, 89, 306-325.

Theoretical assumptions 1: process from idea to operational smart service



Sjodin, D., et al. (2020). "Value Creation and Value Capture Alignment in Business Model Innovation: A Process View on Outcome-Based Business Models." Journal of Product Innovation Management **37**(2): 158-183.

Theoretical assumptions 2: Legitimacy can be manipulated by discursive and performative actions



Ecosystem legitimacy is about achieving a generalized perception in the ecosystem that the smart service is an appropriate solution to problems in the ecosystem and that the company providing this service is desirable

Suchman, M. C. (1995). Managing Legitimacy: Strategic and Institutional Approaches. The Academy of Management Review, 20(3), 571
Thomas, L. D. W., & Ritala, P. (2021). Ecosystem Legitimacy Emergence: A Collective Action View. Journal of Management, 014920632098661.
Tronvoll, B., Sklyar, A., Sörhammar, D., & Kowalkowski, C. (2020). Transformational shifts through digital servitization. Industrial Marketing Management, 89, 293-305.

Research Design and preliminary findings

Single-case study

A world-leading manufacturing organization who has successfully introduced a smart service in an existing ecosystem.

Data collection

Semi-structured interviews, snowball sampling of ecosystem actors
Company annual reports, webpages, videos, media articles

Data analysis

Flexible pattern matching build on theoretical assumtions and generate new theory

The focus of the focal company is pragmatic legitimacy, whilst the enabling legitimacy for the smart service was moral (persons) and cognitive (Digitalization)

In an established ecosystem "talk is cheap", and performative legitimation activites were instrumental in gaining ecosystem legitimacy for the smart service.

Preliminary takeaway

- Smart services started with a «leap of faith»
- Value was easy to describe & difficult to measure
  - Increased security & less human errors
  - Realtime information
- Smart services can be added to the manufacturing company's offering, but «talk is cheap»
- Once the smart service gathered momentum, the ecosystem actors experienced value and increased their commitment to contributing to the service.

Thank you

Digital technologies enabling BMI in manufacturing

- Ecosystem acceptance of Digital Servitization
  - ISPIM presentation December 2021
  - Technovation submission May 2022

- Blockchain for Servitization – facilitating trust in interfirm cooperation
  - Sharing data – Mechanisms for overcoming trust-barriers and monetizing on company data
  - Using Data Gumbo as a case?
  - ISPIM Abstract in February 2022 – conference in June 2022

- Putting a price on a bit – The value of enterprise data
  - Decision-making, Operations, External actors
  - Potential cooperation with a Information Systems PhD candidate

- Data-driven business model innovation
- Creating a tokenized economy with smart contracts – future of digital joint ventures?