



UMEÅ UNIVERSITET

SHIPS, CLOUDS, AND WAVES

Understanding Ecosystems in Traditional Industries

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Akademisk avhandling

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Abstract

This dissertation builds on a jointly phenomenological and theoretical approach to investigate how traditional industries face challenges related to ecosystem innovation. Phenomenologically, it investigates how innovation within the shipbuilding industry affects the activities performed by firms that have traditionally filled the role of suppliers to shipyards. Innovations in digitalisation threaten to upend long-standing relationships and, as a result, have a substantial impact on the structure of the industry, which has a long history of intense competition, long industry cycles, stable products and services, and dependence on global trade. Theoretically, this dissertation is positioned in the growing literature on ecosystems, which takes a particular interest in how innovation creates new interdependencies between actors, interdependencies that need to be aligned for value to materialise. Through this literature, we have an understanding of how innovation can enable new forms of value to reach end users, how firms can orchestrate such activities, and how new entrants can draw on innovation to threaten established industries. However, we have yet to fully consider how ecosystems emerge and are orchestrated in industries characterised by preexisting interdependencies and latent ecosystem structures and the role of complementors in this process.

These issues are examined through four research papers that build on each other to investigate different aspects of the emergence and orchestration of ecosystems in traditional industries. This research follows an abductive approach, meaning that through iteration between data and theory, new results have been generated. The data for the studies are drawn from two case studies within the shipbuilding industry. The papers present four main findings: first, the emergence of ecosystems is significantly impacted by preexisting interdependencies, particularly incentives to innovate and regulatory dependence. Second, these preexisting interdependencies lead to complementors taking a leading role in innovation that spur the emergence of new ecosystems. Third, this is carried out through market and nonmarket strategies as firms must engage with each other and international organisations. Fourth, the preexisting interdependencies also lead to collective orchestration which requires significant internal coordination to successfully perform but allows for market actors to have greater influence in regulatory matters. I arrive at these results by drawing on insights from resource dependence theory, collective action theory, and corporate political activities.

Keywords

Ecosystems, Orchestration, Emergence, Traditional Industries, Shipbuilding, Resource Dependence Theory, Collective Action Theory, Corporate Political Activity

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