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## How Ecosystem Management will Influence Business Model Innovation: Bridging the Gap Between Theory and Practice

Bernhard Lingens<sup>1</sup>

### Abstract:

Ecosystems have become one of the “hottest” topics in industry practice and academia and are becoming increasingly important for companies to grasp in their business model innovation activities. However, research and practice are developing along different lines. Hence, this paper aims to bridge the gap between theory and practice and clarify which critical topics in the field of ecosystem management will be crucial for business model innovation in the future. This leads to four key areas that need attention: 1) Organisational change and firm culture as the most significant barriers for ecosystems and, thereby, business model innovation, 2) Portfolio strategies and performance evaluation for ecosystem-based business model innovation, 3) New investment approaches to deal with start-ups that are ecosystem orchestrators 4) Hands-on approaches for the different roles and tasks in an ecosystem. This makes ecosystem thinking an integral part of business model innovation thinking.

### Introduction

A growing disconnect between academic insights on ecosystems and the needs of practitioners

When Moore (1996) introduced the term ecosystems, he laid the foundation for what has become

one of the “hottest” topics in industry practice and academia. At the concept’s core is the notion of cooperation with external partners. It only needs a little creativity to understand this idea’s significant impact on firms’ innovation capacity, business models and their opportunities for business model

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<sup>1</sup> Universität Luzern, Frohburgstrasse 3, 6002 Luzern

innovation. Accordingly, the topic has been gaining attention from academics and researchers alike: Whilst there is an ever-growing volume of academic papers, it becomes increasingly difficult to find firms that do not claim to engage in what they call “ecosystems”.

However, research and practice are developing along different lines. This is where the idea for this article emerged and, on a very personal note, how I come in: I spend half of my time in academia, researching ecosystems and trying to get published in decent journals. The other half I spend in practice as a consultant who advises firms on building up and managing ecosystems and as an angel investor working with start-ups specifically focusing on ecosystem innovation. Whilst this might seem to be a stuck-in-the-middle profile for many readers, it also has an advantage. To turn weaknesses into strengths, this article aims to bridge the gap between theory and practice to strengthen the connection between ecosystem management and business model innovation. In addition, these critical topics in ecosystem management from a practitioner’s perspective need to be addressed more by research. Hopefully, this can spark research activities that give practitioners valuable insights. However, we must clarify what we discuss before we can do so.

## Why Confusion is the Common Theme in Both Ecosystem Research and Practice

Moore (1996) also laid the foundation for conceptual chaos with his seminal paper. He introduced the term ecosystems in the sense of groups of firms co-evolving around innovation in a setting of competition and cooperation. This might sound like a precise definition at first. Still, it opens up a broad field. Alliances, platforms, networks, cooperation, co-opetition and supply chains could all be framed as “ecosystems”. As a result, many different perspectives on this topic have emerged. For example, for the term “innovation ecosystems” alone, there are 21 definitions that do not have much in common and essentially deal with different concepts (Granstrand & Holgersson, 2020).

The same confusion can be found in practice. Since cooperation is vital in today’s VUCA world (Massa, 2023), large corporates and consulting firms use the buzzword “ecosystem” for everything related to cooperation, collaboration or, even worse, the external environment. Co-working spaces have a “vibrant ecosystem” instead of a network of people using their offices. Industry associations employ a “head of ecosystem management” who is responsible for managing what used to be called their members. Consulting firms offer “ecosystem mappings” when selling their standard sector analysis and make-or-buy/partner decisions. Marketplaces are labelled as ecosystems anyway, whilst the traditional multi-channel sales approach is re-branded as an ecosystem. Insurances and banks doing open innovation in health or mobility are now building up “Ecosystem Health” or “Ecosystem Mobility”.

Recent conceptual works managed to bring order into the mess of the growing ecosystem field. Adner (2017) and Jacobides et al. (2018) framed ecosystems around a joint value proposition based on complementary and non-generic modules. This points towards the two key challenges: 1) managing interdependencies amongst the actors involved and the resulting coordination efforts, and 2) achieving the superior value proposition that constitutes the ultimate purpose of the ecosystem.

This perspective is valuable to practitioners because it enables them to do what we might call “business model innovation on steroids.” Companies developed ideas for novel value propositions and business models in the traditional world. The first question to ask is whether this innovation is relevant to customers and whether it can be expected to generate handsome revenues. However, even if these criteria are fully met, innovation projects will likely be abandoned if the company needs more resources or knowledge to implement them. This is where ecosystems come in. Instead of failing to execute a potentially successful innovation due to a lack of skills, companies can now implement it with the involvement of external partners who contribute what is lacking internally. In this way, ecosystems open the innovation funnel and create growth and differentiation potential beyond limited in-house

capabilities (Chesbrough, 2010). Given the increasing importance of ecosystems to industrial practice, researchers should find many opportunities to support practitioners with valuable insights on ecosystem building and management. However, are they living up to this call?

## Why Academic Research on Ecosystems is not Sufficiently Answering the Needs of Industry Practice

Plenty of research on ecosystems has been published. However, this research is often not applicable to real-world issues of ecosystem managers, too specific or focusing on just very few aspects. For instance, much work has been done on platform ecosystem governance, a topic where academics and practitioners will find plenty of insights (please see Rietveld et al., 2020; Schmeiss et al., 2019; Staub et al., 2021 as some recent examples). However, most ecosystem contributions need to be less generic and abstract to prove insights that could be transferred to industry practice. For instance, Tee (2019) delivered a conceptual framework for managing the interdependencies of complementors. Visscher et al. (2021) developed a high-level framework for strategic positioning in ecosystems. John & Ross (2022) created a highly complex mathematical value creation and capture model.

On the other hand, many contributions deal with specific questions. For instance, Dattée et al. (2018) showed how to build ecosystems in situations of very high uncertainty. Meulman et al. (2018) investigate how to find partners outside the immediate network of a firm. Finally, many contributions are devoted to new technologies and how they can be used in managing ecosystems – for instance, blockchain (Trabucchi et al., 2020; see also Schmuck, 2023 in this special issue). Thus, in addition to these exemplary research clusters, there are unanswered questions that ecosystem managers often face and that remain largely unanswered. I will discuss them in more detail in the next section. Without claiming to be exhaustive. Nevertheless, with the hope that

practitioners can better manage their ecosystem projects on this basis and, in the end, improve the probability of achieving better business model innovation.

## Four Pathways for Research on Improving the Link Between Ecosystems and Business Model Innovation Based on the Unmet Needs of Industry Practice

### Address organisational change and firm culture as the most significant barriers to ecosystems and business model innovation

In this sense, ecosystems are both the problem and the answer. An ecosystem is about implementing a novel value proposition that the firm could only achieve through collaboration. Whilst opening up the innovation funnel and implementing novel ideas and business models sounds promising, this endeavour is challenging from a cultural perspective. It requires a mindset shift, developing a new identity, and acquiring novel knowledge and networks (see Nielsen 2023 in this special issue). For example, in a consulting project with a leading chemical company, the firm intended to build an ecosystem for car battery recycling. This would have forced the firm to move into the area of mobility. In other words, the ecosystem approach would have allowed the firm to become a significant player in mobility. Even without building internal competencies in that field but based on partnerships with mobility players. Sounds fancy. But not for the top management of the car company. They could not accept moving away from the current ground, focusing on mobility customers, and orchestrating a mobility ecosystem based on a new business model. It was not only a matter of transforming the firm. The top management's mindset was the biggest hurdle before the firm could even develop plans for this new field of business.

In my subjective experience, such change problems are why most ecosystem initiatives in traditional companies fail or still need to be started. On the other hand, the ecosystem approach could be the

problem and the answer to this question: As Lingers, Miehé, and Gassmann (2021) show, companies do not need to take on multiple roles in ecosystems simultaneously. For example, they can act only as an orchestrator without being a customer interface or contributing a module to the shared value proposition; alternatively, they can only be a partner responsible for a specific module without orchestrating the ecosystem or being the customer interface. In this way, they can benefit from the ecosystem without involving the organisation too much. For example, if the sales department is resistant to change or busy and unable to build the knowledge needed to sell a new product, the company could forgo being the customer interface and leave that role to another ecosystem partner. Or, if top management does not understand the new logic, why not go the role of orchestrator to another company and focus on a role that requires less identity change for the managers?

In other words, the ecosystem concept would allow companies to choose their roles in the ecosystem in a way that avoids internal change barriers. In this sense, interdisciplinary research could provide answers on how to achieve this. Alam et al. (2020) have shown how companies open up to external collaboration in ecosystems and how this affects corporate culture – but at a very abstract level and without concrete recommendations on managing this transition in reality. However, other researchers could follow this path and provide answers to some highly relevant questions in this direction:

How do we define roles within an ecosystem based on the organisation's barriers to change? (see also Foss, 2023 in this issue) How do you weigh the cost of overcoming barriers to change versus the opportunity cost of not adopting a particular role? What is the cost of change required to take on a specific role versus the additional risks of depending on a partner to take on that role? Further research from a psychological perspective could also look at storytelling strategies for ecosystem managers to explain to top management and employees why the company needs to engage in a particular ecosystem or take on a specific role. However, these are just a few ideas. Suppose change is one of the biggest hurdles to ecosystem development. In that case, ecosystem

research needs to be interdisciplinary and examine the effect of ecosystem strategies with a strong emphasis on internal barriers to change!

### **Portfolio strategies and performance evaluation for ecosystems**

Ecosystems focus on a joint value proposition – So, if a company's business is based on multiple value propositions, it could engage in multiple ecosystems in parallel. Alternatively, the ecosystem initiative may be just one of many innovation projects – perhaps there are some radical innovation projects, some collaborations with start-ups, a corporate venturing initiative, and some internal and more incremental innovation projects. The ecosystem in question is usually not a standalone project that runs in isolation from what the company is doing next to it. Thus, an understanding of how ecosystems can be embedded in a portfolio of innovation projects is missing. Initiatives should be driven by ecosystem logic: corporate venturing, intra-company innovation, etc. This also requires research on ecosystem performance measurement to compare different projects. This may prove even more challenging given ecosystems' interconnected and complex nature. How can the success of an ecosystem be measured? By looking at financials alone? Knowledge inflow from partners versus undesired knowledge transfer to partners (please see Ritala et al., 2015)? Coordination effort or additional risks due to external dependencies? Moreover, how does this compare to innovation projects driven by more traditional, in-house approaches? This would be a promising area of research that could help companies take a step forward in managing ecosystems and make this concept a widely accepted tool for innovation and strategy (see also Ricart, 2023).

### **Start-ups as ecosystem drivers need investors who understand ecosystems**

Lingers, Böger and Gassmann (2021) have shown that contrary to previous opinions, start-ups are very well suited to take on the role of ecosystem orchestrators and be the initiators and managers of ecosystems. They have an inherent advantage in this regard, especially given the barriers to change of larger companies, as explained above. However, start-ups need funding. As an angel investor, I follow the existing beliefs of

start-up investors and stay away from ventures with too many external and internal dependencies. However, such dependence is one of the core problems of ecosystems. So, suppose we want start-ups to realise their potential as ecosystem players. In that case, we need to understand how investors' existing logic and approaches must be adapted for start-ups engaging in ecosystems.

Are there certain stages of start-up development where investors can accept more dependencies? Is there an optimum between exploiting the benefits of joint innovation and the resulting dependencies? Are there strategies for start-ups to reduce dependencies, such as using specific contractual approaches? Moreover, what are the best exit strategies for a start-up whose value creation largely depends on external partners? This opens up a new area of research, especially in entrepreneurship, that can further accelerate the growth of start-up-led ecosystems.

#### **How do you implement an ecosystem's different roles and tasks?**

As mentioned above, ecosystem research still deals with conceptual works and abstract reasoning. However, what is needed in practice is an understanding of how to initiate, build and manage ecosystems. Particularly, hands-on questions instead of conceptualisations and abstract findings are needed. Do

practitioners need mathematical models to simulate the effects of complementarities on value creation and capture? Probably not. However, do they need insights on, for instance, how to implement the different roles in an ecosystem, deal with dependencies, coordinate partners efficiently, and conduct product development in a dependency setting with external ecosystem partners? Yes, certainly! I find this an exciting idea: Innovation management can return to its roots and re-address the traditional questions the discipline started with product development, scaling, and idea generation – but in an ecosystem context.

All of this would help to implement a vision for the entire discipline: It should become a standard way of thinking about strategy and innovation. Moreover, it is a standard tool in managers' toolbox when developing novel business models. In this sense, every idea for a new business model must embrace ecosystem thinking and factor in implementing innovation in a traditional or an ecosystem setting. The multitude of roles a firm could take on in such a setting would open up many additional growth and innovation potentials. With that in mind, ecosystem thinking would be an integral part of business model innovation and a standard in the repertoire of academics and practitioners. I suspect Mr Moore would not be disappointed if his concept went such a long way.

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## About the Author

**Bernhard Lingens** is heading the Area of Innovation at the Institute of Marketing and Analytics, University of Lucerne, Switzerland. Also, he is an adjunct associate professor at the Aalborg University Business School, Denmark and a Senior Research Fellow at the Institute of Technology Management, University of St. Gallen. Before his current occupation, he was working as head of the Helvetia Innovation Lab University of St. Gallen and as a Strategy Consultant at Roland Berger, Zurich. He was a visiting researcher at Imperial College London Business School. He received his PhD in Innovation Management from the University of St. Gallen and a Master of Science in Business and Engineering from Illmenau University of Technology.

### Contact Details:

Universität Luzern, Frohburgstrasse 3, 6002 Luzern  
bernhard.lingens@unilu.ch