Firm Strategy and the Continuity and Change in Ecosystems

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Abstract

The notion of 'industry', defined as all firms that produce close substitutes (Porter, 1980), has served us well. What it did is to focus our attention on competition and more specifically on the importance of value appropriation as well as capability development (Barney, 1991; Teece, Pisano, & Shuen, 1997) for firms as these compete in an industry. Recent developments made us recognize the importance of complementarity, that is that the value of a combination of products and services exceeds the value of products and services when taken separately (Brandenburger & Nalebuff, 1996, 2021).

This has various consequences for our conceptualization of the relevant environment for firms. Taking complementarity into account, firm performance is not only a function of how the firm competes but also of how the firm cooperates. The term of co-opetition expresses this new reality (Bengtsson & Kock, 2000; Brandenburger & Nalebuff, 1996). There are also more actors that have become relevant bar the ones that have been captured by Porter's (1980) 'five forces'. Consequently, the notion of 'ecosystem' has gained traction as an alternative to'industry', with various definitions being proposed (Adner, 2006; Gawer, 2014; Jacobides, Cennamo, & Gawer, 2018). To us an ecosystem is a set of activities that generates complex functionality in the form of a product-service bundle for a system-of-use (Sminia, Ates, Paton, & Smith, 2019). Complex functionality as a coherent solution (Hannah & Eisenhardt, 2018) is what represents value for end-users. Generating complex functionality normally involves many different actors including buyers, suppliers, competitors, possible entrants, subsitutors, but also complementors, orchestrators, platform leaders, financiers, insurers, regulators, and government agencies.

Every ecosystem is arranged in its own idiosyncratic way as it accommodates the three dynamics of capability, governance, and appropriation (Paton, Ates, Sminia, & Smith, 2021; Sminia et al., 2019). The arrangement that characterizes an ecosystem therefore contains a capability configuration, a governance structure, and an appropriation regime. The capability configuration tells which firms are contributing what capability to create the complex functionality. The governance structure governs the relationships between the actors in the ecosystem as well as provides the rules, regulations, and standards that must be complied with. The appropriation regime determines how firms capture the value that the complex functionality represents. The three dynamics have a bearing on each other. Consequently, individual firm performance is a consequence of the firm's position in, the capability configuration, the governance structure, and the appropriation regime.

Capability, governance, and appropriation are 'dynamics' because these are not stable entities. The ecosystem arrangement is inherently fluid because firms are constantly trying to improve their position

and in doing so perpetuate or change the arrangement. Furthermore, ecosystem activity is stratified in that there is a basic process by which firms and other actors perform within the existing arrangement while there simultaneously is a underlying process going on by which the existing arrangement is maintained or changed (Lawrence, Leca, & Suddaby, 2009; Sminia & de Rond, 2012). Firm activity therefore has dual consequences. On the surface, every move serves a purpose for utilizing a firm's position in the existing arrangement. Simultaneously this activity has the additional effect of either conforming to and maintaining the existing arrangement, or of deviating from, undermining, and possibly changing the existing arrangement, all to improve the firm's position in the arrangement. Ecosystem activity can include overt initiatives that are aimed at transforming an ecosystem, potentially changing it beyond recognition when change becomes so fundamental that it transforms the complex functionality and how this is valued by the system-of-use.

All of this means that questions regarding how an ecosystem emerges, develops, and changes must be posed and answered in terms of how this volatility plays out, recognizing the stratified nature of ecosystem activity. In turn, this allows us to appreciate firm strategy not only as a firm utilizing its position in an existing ecosystem arrangement, but maybe and more importantly to also see strategy as actively engaging with and changing the ecosystem arrangement to its advantage. For this reason, we posit that ecosystems do not emerge from nothing but that ecosystems morph and transform - on occasion giving the impression something completely new has developed - because of the inherent volatility present in an ecosystem, especially if a string of initiatives succeeds that in effect alter the complex functionality that is being generated.

This paper develops this dynamic understanding of the notion of an ecosystem and puts forward four propositions about how firms can deal with ecosystem volatility. It does so by first explaining about ecosystem dynamics in more detail. The layered nature of ecosystem strategy will be explicated second, which allows us to develop our four propositions. Our elaboration of ecosystems and what it means for firm strategy will be illustrated using a firm that we refer to by the name of SpaceCo. SpaceCo is the fictitious name of a company we currently work with in a knowledge exchange project. The paper will finish by discussing implications and suggesting further research.