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POINT OF VIEW
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Platforms, ecosystems, and the internationalization of highly digitized organizations

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Abstract

Highly digitized organizations can potentially grow faster internationally, relatively to more traditional organizations. They can do so by providing a platform, and by fostering an ecosystem of complementary third party developers, some of which are foreign. This paper proposes a theoretical link between International Business theory and the literature related to the platform-ecosystem organizational form. It emphasizes implications for psychic distance, liability of foreignness, and speed and pattern of internationalization.

Keywords: Digital organization, Platform, Ecosystem, Internationalization

Introduction

Advancements in information and communication technologies drive the emergence of platforms and ecosystems in a variety highly digitized industries, including smartphones, smart TVs, game consoles, and Internet-based products and services. For example, the common operating systems in the smartphone market are Android, a software platform offered by Google, and iOS, the software platform in Apple's iPhones. From an organizational and business strategy standpoint, Apple runs a platform business, enabling complementors to produce products for iPhones and interact with iPhone customers. In the case of Android, also smartphone manufacturers (such as Samsung and HTC) run platform businesses that take advantage of the platform. Similarly, Facebook runs a platform business: the social network has a business ecosystem - hundreds of thousands of affiliates, or third-party developers - that provides complementary offerings. Facebook offers a site dedicated for developers (where development tools and information resources are available), organizes developer conferences, and employs a team supporting them.

Interestingly, many ICT-enabled platforms have reached a strong global presence within a short period, indicating that this organizational form may have considerable implications for the internationalization process of the platform provider.[1] It seems that platform providers exhibit a fast and unique internationalization process in which foreign affiliated third parties play a significant role. To address this phenomenon, I propose a theoretical link between the literature related to platforms and ecosystems, and International Business (IB) theory. Such theoretical development is important for researchers since it can provide a clearer direction for future empirical research. In addition, it can help managers to better design highly digitized organizations striving to internationalize.

Theoretical background

According to Iansiti and Levien (2004), a platform is collection of services, tools and technologies, which is the foundation for an ecosystem - a loose network of suppliers, distributors, outsourcing firms, makers of related products or services, technology providers, etc. These firms share the fate of the entire ecosystem, and have a major influence on the performance of the platform provider. Similarly, Hagel et al. (2008) conceptualize platform as a set of clearly defined standards and practices that helps organize and support the activities of many participants. A platform provider strives to shape global ecosystems and thereby fundamentally alter industries and markets. In Ander's (2006) view, a platform is a foundation for an innovation ecosystem which is a collaborative arrangement allowing firms to combine their individual offerings into a customer-facing solution. Such innovation ecosystems have become a core element in the growth strategies of firms in a wide range of industries. Cusumano (2010) defines *Industry platform* as a "foundation or core technology (it could also be a service) in a "system like" product that has relatively little value to users without complementary products or services" (p. 23–24). The goal is to encourage external innovators, which form the platform ecosystem, to adopt the platform technology and contribute complementary innovations. Miles et al. (2009) described the "I-form", a collaborative community of firms (usually including a facilitator organization) designed to pursue rapid and continuous innovation. Fjeldstad et al. (2012) showed that large scale multiparty collaborations are based on actors capable of self-organizing, shared resources, and protocols, processes, and infrastructures that enable collaboration.

Similarly, a number of *Journal of Organization Design* articles have emphasized business ecosystems, permeable organizational boundaries, and open innovation. Giustinialo and D'Alise (2015) discussed the characteristics of networks, clusters, and "small worlds", suggesting that cluster-spanning bridges can spur each cluster's innovation. Alberts (2012) argued for an expanded definition of an organization as a complex enterprise, Baldwin (2012) discussed challenges stemming from the management of distributed innovation in dynamic ecosystems, and Tushman et al. (2012) discussed flexible organizational boundaries. However, these contributions did not investigate the influence of such organizational design on the internationalization process of the firm.

Psychic distance and *liability of foreignness* are highly related key concepts in the IB literature. The vastly cited and tested Uppsala model (Johanson and Wiedersheim Paul 1975; Johanson and Vahlne 1977) depicts internationalization as a gradual, incremental process. Psychic distance is defined as factors that make it difficult to understand foreign environments, such as differences in language, culture, political systems, level of education, and level of industrial development. The main factor influencing the process is lack of foreign market knowledge that is hindered by psychic distance, thereby creating uncertainty. The critical knowledge is experiential knowledge, which can only be acquired through personal experience and cannot be transmitted from one person to another. Investment decisions are made in response to problems and opportunities in the market, based on experience. The outcome is a gradual investment in foreign markets, depending on accumulation and use of foreign market knowledge. The implication for market choice (pattern of internationalization) is that the firm will initially enter international markets that are psychically close to their home market and gradually expand to more distant markets. According to Johanson and Vahlne (2009:1412), "This process had its origin in the liability of foreignness, a concept that originally explained why a foreign investor needed to have a firm-specific advantage to more than offset this liability (Hymer 1976; Zaheer 1995). The larger the psychic distance the larger is the liability of foreignness".

Liability of foreignness refers to the disadvantage a firm operating in a foreign market faces vis-à-vis local firms. This was the basic assumption underlying theories of the multinational firm (Buckley and Casson 1976; Caves 1982; Dunning 1981). The concept was pioneered by Hymer (1976), who argued that a firm establishing an operation abroad faces costs, which local firms do not. These costs may stem from higher coordination costs, unfamiliarity with the local market or culture, lack of networks or political influence or reluctance of customers to buy foreign goods. Theories of the multinational firm argue that firms can internationalize because they possess a firm-specific advantage which is crucial for overcoming and compensating for the liability of foreignness. The firm compensates this disadvantage through gains stemming from its intangible assets (brand, technology, managerial practices). Equipping foreign subsidiaries with such assets allows them to overcome the disadvantage associated with liability of foreignness.

The internationalization process of a highly digitized organization designed as a platform provider

A platform provider pursuing internationalization can choose to integrate vertically or not. However, while integrating entails costs and challenges associated with internationalization, a platform strategy means that mostly local complementors bear the burden. For the sake of simplicity, I hereby discuss the two extreme organizational forms: the *classic* organizational form, through which the firm coordinates internally the provision of complementary offerings, and the *platform-ecosystem* organizational form, where affiliated third parties provide complementary offerings. I assume that firms can choose between two organizational forms. In addition, for the sake of simplicity I assume that complementary offerings are equivalent in both organizational forms (their features and attributes are similar, and the only difference is *who* provides them).

The choice between the two organizational forms can have major implications for the internationalization process of the platform provider. First, unlike the classic form, the platform-ecosystem form allows the platform provider to share costs and risks associated with internationalization with affiliated third parties. Here, it is platform affiliates that incur a large share – most likely the lion share – of investment in complementary offerings. Second, the platform-ecosystem form allows *foreign* affiliates to create complementary offerings designated for foreign users. Therefore complements are created by people who are much more familiar with the foreign market - since it is their *home* market. Hence, relatively to a firm adopting the classic form, a firm adopting the platform-ecosystem organizational form is likely to incur lower liability of foreignness, and should be less influenced by psychic distance to the foreign market. For example, Facebook has an ecosystem of third party developers from almost every country in the world. Here, applications dedicated to the French market are typically developed by French developers. Alternatively, Facebook could have developed these applications in house, having to bear the associated costs and risks – and having to overcome the liability of foreignness and the psychic distance associated with the French market.

The discussion above leads to the following propositions:

P1. Relatively to a firm adopting the classic organizational form, a firm adopting the platform-ecosystem form will incur lower liability of foreignness
P2: Relatively to a firm adopting the classic organizational form, a firm adopting the platform-ecosystem form will internationalize faster.
P3. Market choice (internationalization pattern) of a firm adopting the platform-ecosystem form will be less influenced by psychic distance to the foreign market, relatively to a firm adopting the classic organizational form.

Additional strategic choices to make?

Market choice and entry mode choice[2] are key concepts in IB theory. However, in the case of platform providers, it seems that additional choices are as strategically important as these two. First, as argued before, the choice of foreign markets seems less important, since psychic distance and liability of foreignness are less influential. Second, many ICT-enabled platforms are global, i.e., one global platform serves all international markets (e.g., iOS, Android, the Facebook platform). A Provider of a *global* platform does not have to choose entry modes in foreign markets because it is one universal platform.[3] This discussion raises the following question: are there additional strategic choices a platform provider should make during the internationalization process?

The internationalization process of a platform provider is driven by foreign affiliates as much as it is driven by the platform provider, since foreign affiliates can choose which platform to join, and how much to invest in complementary offerings. Therefore attracting the most suitable foreign affiliates, and creating for them the right conditions for developing and providing complements, may be as strategically important as market choice or entry mode choice. Management may have to ask questions such as "do we have enough suitable developers providing applications in Spanish?" and "How can we bring in more French content providers?". Such questions may be as important as the question "should we enter Spain before or after we enter France?". It seems that a platform provider striving to internationalize will have to make additional strategic choices (compared with the choices the classic organizational form entails). Choosing foreign affiliates, and choosing (creating) the right conditions for them to develop and provide complementary offerings, seems to be critical to the success of the internationalization process of the platform provider.

Conclusion

Highly digitized organizations designed as platform providers are likely to experience an internationalization process that differs considerably from the one discussed in the received IB literature. This paper proposes a theoretical link between the literature on the platforms and IB theory. Organization design researchers may find this paper useful when analyzing the internationalization process of platforms in ICT-enabled industries and perhaps as a building block in the further development of organization theory.

Endnotes

[1]I focus on the internationalization of the platform provider and not on the internationalization of the entire platform-ecosystem organization, since the latter is made of numerous organizations, many of which are domestic in nature (e.g., French third party developers of iOS applications).

[2]Entry mode choice refers to the mode of entry to a foreign market. For example, a firm may enter a foreign market through establishing a wholly owned subsidiary or a joint venture, by acquiring a domestic firm, etc.

[3]This entry mode to foreign markets may be termed "platform-ecosystem entry mode".

Competing interests

The author declares that he has no competing interests.

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