Platforms in a B2B context: A business model perspective

Platforms are heralded as superior business models in the digital age. Goodwin (2015) is often quoted for famously saying "*Uber, the world's largest taxi company, owns no vehicles. Facebook, the world's most popular media owner, creates no content. Alibaba, the most valuable retailer, has no inventory. And Airbnb, the world's largest accommodation provider, owns no real estate. Something interesting is happening.*" What all these companies have in common is that they operate a digital platform. This has caused a hype in ambitions with everyone wanting to be the next Uber of X or the Airbnb of Y. However, this begs the question of whether this makes sense or even more if this is feasible, in particular in a Business-to-Business (B2B) context. A business model perspective may shed some light on this by highlighting some of the opportunities as well as challenges and suggesting possible paths forward.

Digital platforms are seen as multi-sided marketplaces as well as technological architectures, bringing together ideas from economics and engineering. Gawer (2014, p. 1245) defines technological platforms as "*evolving organizations or meta-organizations that: (1) federate and coordinate constitutive agents who can innovate and compete; (2) create value by generating and harnessing economies of scope in supply or/and in demand; and (3) entail a technological architecture that is modular and composed of a core and a periphery*." More specifically, Gawer (2014, p. 1244) note that "*in order to create value, platforms rely crucially on economies of scope in supply and innovation (for the engineering design view), and economies of scope in demand (for the economics view)*." This definition hints towards the importance of a business model perspective that look at the value logic of an organization by addressing how it creates and captures value (Fielt, 2013). While value capture is not stressed by Gawer, this has been a major driver for the popularity of platforms as noted by Goodwin who stresses its profitability by being at the inteface of supply and demand.

OPPORTUNITES FOR PLATFORMS IN THE B2B CONTEXT

Let us first address what makes platform business models so popular in the first place, in particular their novelty, attractiveness and versatility. Firstly, while not necessarily new to the world, digital platforms are often new to traditional (B2B) industries and companies and as such offer ways to disrupt traditional business. Digital platforms have gained popularity in the tech industries where new products and services are often based on or supported by new business models as in the examples provided by Goodwin. Now digital platforms are also gaining traction in B2B markets where the traditional way of working can be described as pipelines that create value by controlling a linear series of activities (Van Alstyne, Parker, & Choudary, 2016). Platform business models do not operate through control but through leverage, where an impact is generated that is disproportionately larger than the input required (Thomas, Autio, & Gann, 2014). This makes it very hard for traditional pipeline businesses to compete with platform businesses and as such drives start-ups, tech companies and even incumbents to launch new digital platforms to disrupt traditional B2B markets.

Second, platforms are seen as very attractive business models. Seven of the ten largest global firms by market capitalization operate platforms: Apple (1), Microsoft (3), Amazon (4), Alphabet (5), Facebook (6), Tencent (7), and Alibaba (9)[1]. One of the reasons why platform business models are attractive is that they have low cost structures and high gross margins once they are scaled up (Hagiu & Rothman, 2016). In addition, platform often generate significant amounts of data, which can be used to drive revenues and as an economic asset. Platform business models enable its

[1] https://www.pwc.com/gx/en/services/audit-assurance/publications/global-top-100-companies.html (May 2021)

owners to capture a significant part of the value created for its users through positive network effects and winner-takes-all economics. Network effects, also known as demand-side economies of scale (Van Alstyne et al., 2016), can be same-side (within a user group) or cross-side (between user groups) (Parker, Van Alstyne, & Choudary, 2016). These positive network effects make the platform more beneficial for its users as it grows exponentially. This can also lock-in users while creating entry barriers for competitors and as such establish a strong competitive position.

Third, platform business models are very versatile. Above we noted that platform business models create value through leverage. Platforms can apply leverage in different ways: (1) production leverage based on the (re)use of a collection of assets and the interfaces and standards that enable sharing to drive economies of both scale and scope, (2) innovation leverage based on the (re)use of a collection of assets and the interfaces and standards that drive economies of innovation and complementary, and (3) transaction leverage based on the shaping of market pricing and access to drive transaction efficiency and reduce search costs (Thomas et al., 2014). There are different types of platforms possible, for example platforms with peer-provided assets and platforms with asset control (Mody, Wirtz, Fung So, Chun, & Liu, 2020). Platform business models can also have various degrees of openness. While some platforms are internal, others are external and either private or public. Private platforms are based on existing relationships and often invitation only. In public platforms anyone can participate, as long as they fulfill certain criteria. Moreover, with digital technologies evolving we see that opportunities for platforms are ever increasing. For example, with the Industrial application of Internet of Things (IIoT), we see new opportunities for platforms in manufacturing (Pauli, Fielt, & Matzner, 2021).

CHALLANGES FOR PLATFORMS IN THE B2B CONTEXT

With platform business models offering new opportunities for value creation and capture, it is no surprise that their popularity has been on the rise, also in the B2B context. However, we also have seen many B2B platforms struggling with some never launching in the first place while others fail to scale up. Below we discuss some challenges that a platform may face in a B2B context related to value creation and capture, implementation, incumbents launching and operating platforms, and platform strategy and competition.

First, there are some fundamental problems with value creation though platform business models in the B2B context. With respect to value creation, B2B markets often involve less actors on the demand and supply side and there are existing relationships between most actors. As such there will be less opportunity for a platform to create value by connecting large numbers of (unknown) buyers and sellers and establishing positive network effects. For example, a study of Wallbach, Coleman, Elbert, and Benlian (2019) shows how platform diffusion inhibitors slows down or even thwarts positive network effects in competitive B2B networks. Moreover, there may easily be negative network effects, for example, with two dominant players in an industry not wanting to use the same platform. In addition, B2B markets are often a “small-number exchange”, where there are relatively few qualified suppliers and relatively few substantial buyers. This means that individual customers are strategically important and require individual and unique treatment making platforms as marketplaces less relevant. With respect to value capture, in the B2B context these is often a need for specialized solutions instead of generic apps as often seen the B2C context (Pauli et al., 2021). As such a platform will find it hard to function as an app store, which is a quite common way for platforms to generate revenues in the B2C context.

Second, implementing a platform business model in a B2B context can also be very challenging and often the devil is in the detail. Getting a platform business model right in a B2B setting is more challenging as buying and selling processes in B2B markets have specific characteristics and are often more complex (e.g., Brennan, 2014; van Weele, 2005). For example, buying processes can involve detailed, technical proposals, extensive negotiation, personal interactions, and long-term relationship building. As such it will be more difficult for a digital platform to develop and deliver the right value-adding services for buyers and sellers with many of them also having their own purchasing and marketing & sales functions. Moreover, taking a successful platform business model from one context to another is not straight forward. For example, eBay failed in China due to insufficiently adapting to cultural differences and the specificity of the Chinese market.

Third, while incumbents in a B2B market may have an advantage due to their in-depth knowledge and established relationships, it may be very problematic for them launch and operate platform business models due to their existing business. As noted above, the value logic of traditional, linear business models is based on control while the value logic of platform business models is based on leverage. This may create issues for incumbents, who are also providers of products and services themselves, when launching and operating a platform business. When launching a platform business, incumbents may on the one hand need to operate their new platform business separate from their traditional business to decrease tensions while on the other hand integrate them to increase synergies. When operating a platform business, incumbents will need to manage their dual role of on the one hand being the platform owner while on the other hand often being a seller on the platform. More broadly, B2B platform ecosystems are often characterized by coopetition where the different actors cooperate as well as compete with each other at the same time.

Fourth, even if it is possible to launch and operate successful platform business models in a B2B market, issues of strategy and competition need to be considered to achieve platform leadership. This will be different from B2C markets where generally positive network effects and winner-takes-all economics will decide who will become the dominant player. While early mover advantages may help with creating competitive advantages, the many risks associated with introducing new platforms in B2B markets may make this a very costly strategy. Moreover, introducing new features to further develop a platform and differentiate from competitors may seldomly lead to competitive advantages if these innovations are easily copied.

WAYS FORWARD FOR PLATFORMS IN THE B2B CONTEXT

Given the opportunities and challenges of platform business models in the B2B context, we will end with suggesting some potential ways forward with a focus on incumbents.

First, incumbent organizations need to use mindful decision making instead of jumping on the digital platform 'bandwagon.' The decision to pursue a platform business model should be situated in a careful consideration of the specifics and facts of the own organization and the B2B context (Swanson & Ramiller, 2004). "Mindful decision making involves discriminating choices that best fit a firm's unique circumstances, rather than familiar and known behaviours based on what others are doing" (Fiol & O'Connor, 2003). For example, organizations may choose to go for new platform business models with asset control as that offers more potential synergies and less challenges in relation to their existing pipeline business models than platform business models with peer-provided assets (Mody et al., 2020).

Second, incumbent organizations need to manage the evolutionary change of their traditional, pipeline business model with the revolutionary change of their new, platform business model. This requires them to become ambidextrous organizations and are able to host multiple contradictory structures, processes, and cultures within the same firm (Tushman & O'Reilly III, 1996). In particular, it requires them to keep exploiting their traditional pipeline business model through the refinement and extension of existing competences, technologies, and paradigms in a physical world while also exploring new platform business model through the experimentation with new ways of creating and capturing value in a digital world. Experimentation is important for new platform business model as often initially ideas are incomplete and may not fit the vary circumstances. Moreover, 'the devil is often in the details' with specific design choices still needing to be made that may affect the interests of the different parties involved (Fielt, Janssen, Faber, & Wagenaar, 2008).

Third, incumbent organizations need to embrace the complexity of platform business models. This partially follows from being mindful, which includes a reluctance to simplify meaning that organizations have to do the hard work of understanding digital platforms and their strategic potential and operational implementation in their specific situation. Beyond this, complex business models can help organizations create a competitive advantage as they create a better fit with the environment and are less easy to imitate. Complex business models help organization deal with contradictory demands from the environment by enabling paradoxical strategies (Smith, Binns, & Tushman, 2010), for example, the incumbent being a platform owner as well as a provider and cooperating as well as completing with other providers. In addition, complex business models also manifest themselves through the interdependencies between design choices across different elements in the business model making them harder to copy (Zhao, von Delft, Morgan-Thomas, & Buck, 2020).

Fourth, incumbent organizations pursuing platforms in the B2B context may consider a collaborative approach working with other stakeholders. For example, a platform may be operated by a consortium instead of an individual firm. Alternatively, different platforms may consider how they can co-create value by, for example, adopting open standards so that business organizations may have lower investments to participate and are less prone to lock-in. As such prominent incumbents can use their digital platforms to create broader digital innovation ecosystems to tackle some of the significant problems within their industry and create shared value.

In sum, we see platform business models providing opportunities through their novelty, attractiveness and versatility as well as posing challenges in a B2B context related to value creation and capture, implementation, incumbents launching and operating platforms and platform strategy and competition. We call upon incumbents to be mindful, master ambidexterity and experimentation, embrace complexity and consider collaboration.

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