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FROM SPECIALIZATION TO PLATFORMIZATION: BUSINESS MODEL EVOLUTION IN THE CASE OF SERVICENOW

Research paper

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Abstract

Currently, platform-based business models are most successful regarding revenue growth and market shares. However, the stepwise evolution of organizations' business models towards multi-sided platforms is not fully understood. Therefore, we conduct a longitudinal case study on the IT organization *ServiceNow*. Based on publicly available data, we build on research on business model evolution, platform emergence, and platform ecosystems to analyze the evolution of ServiceNow's business model between 2004-2020. We derive four distinct mechanisms comprising continuous value proposition extension and enablement of value co-creation. These are enabled by opening towards partners and iteratively addressing new customer segments. We contribute to research on business model evolution with insights on the evolution towards platform business models. Besides, we complement the perspective of platform emergence by a nuanced business model view, bridging these two literature streams. Practitioners benefit from the mechanisms to guide their business model evolution towards a multi-sided platform business model.

Keywords: Business Model Evolution, Multi-sided Platforms, Ecosystem, Value Co-Creation, Case Study

1 Introduction

Dynamic markets and fast-changing requirements are demanding for organizations. To remain competitive, companies have to continuously adapt their business models (BMs). The likes of Microsoft and Amazon successfully adapted their BM towards cloud and payment services. Zoom, a video communication technology provider mainly addressing corporate clients paying for their services, quickly reacted during the COVID-19 pandemic and offered their services for free to various customer segments around the world, such as educators. This drove its popularity and led to a more than nine-fold increase of its company value within 10 months. In turn, organizations unable to change their BM fail to survive (Antero et al. 2013) or lose strong market positions, as was the case for Yahoo and Nokia, whose BM evolution did not match the market's demand. Collaborative approaches are one possible solution and allow the agility to strive in this competitive environment: The most valuable companies have digital platform-based BMs (Cusumano et al. 2019; Cusumano et al. 2020). Yet, many companies fail in the transition to platforms, posing a problem for them, as strong growth rates and the trend towards monopolization allowed by these models are then taken over by competitors (Cusumano et al. 2020).

Platform BMs change how products and services are produced and consumed by different platform sides, giving rise to multi-sided markets (Hein et al. 2019a). They rely on the idea that value is co-created among different groups of actors, such as users and autonomous developers (Gawer and Cusumano 2014; Tiwana et al. 2010). Successfully building a multi-sided platform BM is a highly challenging task, as these models propose a higher complexity compared to “traditional BM” such as product sales or licensing (Giessmann and Legner 2016). Successful platform BM can achieve high growth and offer large value capture potential for the owner. Existing literature elaborates on how these multi-sided platforms function (Hein et al. 2019a) and how they evolve based on design, governance, and environmental dynamics (Staykova and Damsgaard 2017; Tiwana et al. 2010). However, these studies focus on the evolution once the platform has been defined, ignoring the crucial steps in the evolution of a traditional BM preceding this stage. BM evolution describes a fine-tuning process of “voluntary and emergent changes in and between permanently linked core components [of a BM]” (Demil and Lecocq 2010). BM research studied evolution on organizational level (Antero et al. 2013; Davies and Doherty 2019; Demil and Lecocq 2010; Sosna et al. 2010), as well as on industry level (Banda et al. 2018; Bohnsack et al. 2014; Vaccaro and Cohn 2004). The studies on the organizational level show from an internal perspective how BMs evolve. Strategy literature like Porter’s Five Forces (Porter 1980, 2008) or the Resource-based View (Barney 1991) focus on value creation and capture in a focal firm. Using the BM as a lens on platform emergence allows incorporating partners and third parties into the evolution of the value creation and capture mechanisms (Lanzolla and Markides 2020; Massa et al. 2017). Multi-sided platforms BMs rely on opening the value creation processes and leverage external knowledge sources. As such, they provide a challenging, but fruitful opportunity to provide detailed insights on BM evolution.

Addressing this void, we focus on the question: *How does a firm evolve its linear business model towards a multi-sided platform?* Using the BM as a framework to analyze the evolution offers the advantage to integrate external influences with internal properties of an organization, reflected in the value creation and capture mechanisms (Hedman and Kalling 2003; Teece 2010). The understanding of BM evolution to multi-sided platforms is valuable to (i) enhance research on BM evolution with an external view of opening value creation and leveraging external knowledge sources and, (ii) complement the perspective of platform emergence by a nuanced BM perspective. We apply a theoretical framework based on the Business Model Canvas to study the evolution of an organization whose BM successfully evolved towards a multi-sided platform (Yin 2018): the US software company *ServiceNow*. Within 16 years, the organization iteratively developed from a small and specialized IT software provider to a platform enterprise. As BMs are inherently based on software and embedded in dynamic settings (Alt 2020), this provides a suitable case to study the phenomenon. We develop a process theory of how a continuous extension of value proposition combined with iterative changes of further BM components evolves closed BMs to become open and subsequently multi-sided platforms.

With this study, we contribute to research by bridging literature about platform emergence, platform launch strategies, and BM evolution. We provide novel results on BM evolution in the context of multi-sided platforms. The results provide a nuanced view on platform emergence on the level of the BM, allowing practitioners to better address the problem of platform development by showing how they can evolve their existing BM towards multi-sided platforms.

2 Business Model Evolution and the Emergence of Platforms

The logic of BMs has become critical for business success (Veit et al. 2014). The concept’s tangibility in practice increases its relevance in research, offering a novel lens to develop new theoretical insights in strategy (Bigelow and Barney 2020; Lanzolla and Markides 2020). A BM can be understood as an activity system changing dynamically, constituted of independent activities of a firm and its partners to create value (Arbussa et al. 2017; Zott and Amit 2010). The so-called Business Model Canvas is one of few widely adopted representations of BMs, which we use as a framework within this study (Massa et al. 2017). It consists of nine components: *Value proposition, key partners, key activities, key resources, customer relationships, customer segments, channels, cost structure, revenue streams* (Osterwalder and

Pigneur 2010). Its wide adoption and its description by nine components, compared to further conceptualizations often using four components (Foss and Saebi 2017; Gassmann et al. 2013; Teece 2010), offers enough complexity for our research endeavor while remaining relatively easy to comprehend.

Changing components of BMs affects an organizations' knowledge base (Delft et al. 2019) and the integration of this knowledge is important within BM design and innovation (Corbo et al. 2020; Delft et al. 2019; DiBella 2020) as well as for evolutionary adjustments (McDonald and Eisenhardt 2019). BM change should be actively engaged by organizations (Chesbrough 2010; Linder and Cantrell 2000; Teece 2018). The process of changes in and between components of a BM is understood as BM evolution (Demil and Lecocq 2010). The evolutionary aspects of BMs have been partly studied (Zott et al. 2011) on industry level (Banda et al. 2018; Bohnsack et al. 2014; Vaccaro and Cohn 2004). On organizational level, Antero et al. (2013) explain the need for an evolutionary perspective. Demil and Lecocq (2010) show that an organization's sustainability depends on anticipation of and reaction to voluntary and emerging changes between BM components. Davies and Doherty (2019) elaborate on the challenges of integrating hybrid objectives into value capture. While prior research provides insights into different aspects of BM evolution, what mechanisms constitute this process is not sufficiently understood. We also use the organizational level, adding a perspective toward platformization to show mechanisms of BM evolution towards multi-sided platforms based on opening value-creating processes and leveraging external knowledge sources.

Platform Business Models

The literature lacks a general definition of platform BMs (Fehrer et al. 2018) but agrees an open architecture, interoperability across technologies and the ability to connect various actors and their resources are central to facilitate the creation of value between actors (Coombes and Nicholson 2013; Fehrer et al. 2018; Kortmann and Piller 2016; Velu and Jacob 2016). Platform BMs are usually conceptualized as multi-sided markets, mediating supply and demand (de Reuver et al. 2018b). This characterization is based on the notion of platforms enabling different groups to interact via the platform (Gawer 2014; Schrieck et al. 2016), creating and deriving super-additive value (Clemons 2019). Thus, the platform owner's role is to develop and grow an ecosystem of different actors around a stable and reliable platform core (Staykova 2018). This core often provides a key functionality, which is consumed by users and extended through products and services provided by autonomous complementors (Hein et al. 2019a; Tiwana 2014). Hence, the modes for value creation in multi-sided platform BMs differ from those of linear value chain businesses (Dell'Era et al. 2020). For example, independent developers in Apple's App Store extend the basic value proposition of iOS towards users with their applications (Eaton et al. 2015). That way, multi-sided platform BMs allow organizations to grow rapidly and address an almost unlimited number of different customer problems. Hence, incumbents face the decision to change their BM from traditional, linear models towards platform-based ones (Dell'Era et al. 2020; Hein et al. 2019b).

However, for a multi-sided platform BM to be successful, getting users and complementors to participate is fundamental (McIntyre and Srinivasan 2017). Their diffusion relies strongly on network effects, which can be slowed down by various inhibiting factors (Wallbach et al. 2019). Extant literature has examined the emergence of digital platforms through the lens of launch strategies (e.g., Schirrmacher et al. 2017), technological trajectories (e.g., Hein et al. 2019b), or ecosystem structures underlying value co-creation (e.g., Basole and Karla 2012, Tiwana 2014). Their evolution has been studied from incumbents' perspective, either by evolving traditional product firms as a whole to platforms (Zhu and Furr 2016) or by intrapreneurially creating new platform firms (Abdelkafi et al. 2019; Brusoni and Prencipe 2009). The case of the International Data Spaces showcases how a multi-sided platform comes into existence from scratch within an alliance (Otto and Jarke 2019). Taking the BM as a central lens, further research builds a taxonomy of platform-based marketplaces as BMs (Täuscher and Laudien 2018), and provides a framework to understand platform BMs from a systemic perspective (Fehrer et al. 2018). While these perspectives allow selective insights into different aspects of platform emergence and specifics of multi-sided platform BMs, there is no comprehensive account of how multi-sided platforms come into existence and of the evolution of the underlying BM (Otto and Jarke 2019).

3 Research Design

We follow a single case study design (Yin 2014), suitable to approach ‘how’, as opposed to ‘how much’, questions (Sach 2015). Case studies provide valuable insights into real-life phenomena (Yin 2018) and theories emerging from them tend to be novel, testable, and empirically valid (Eisenhardt 1989). We employ a single, in-depth, exploratory, longitudinal, and inductive case study design. In exploratory studies, the aim is to find out what is happening in a particular context, generate insights, and propose hypotheses for future studies (Runeson et al. 2012). Multi-sided digital platforms represent a high complexity. As such, we looked for a BM originally based on software, as this provides a suitable ground to study the evolution, but does not incorporate further developments influencing our results, such as servitization of physical products (Steininger 2019). We sampled an organization from the software industry.

Concerning **case selection**, we chose *ServiceNow*, an IT enterprise headquartered in Santa Clara, California, and founded in 2004. The company generated a revenue of \$3.46 Billion in 2019 and had approximately 10,000 full-time employees around the world. Starting with IT-service management, the company nowadays offers an enterprise suite for service management. It follows a single platform strategy with the *Now Platform* as its main product (Illsley 2018; Odell and Ferrif 2019; ServiceNow 2020b). Nowadays, it serves various global organizations (Gupta 2017), counting roughly 80% of Fortune500 companies as customers (ServiceNow 2020b). Furthermore, ServiceNow significantly changed its BM (Illsley 2018) from directly selling applications to transforming it into a multi-sided digital platform in a period of 16 years (Kenneth Gonzalez 2019). It “is the fastest-growing enterprise cloud software company in the world” (Kenneth Gonzalez 2019) underpinning the successful BM evolution to provide value to the case company. The uniqueness of the evolution of the case of ServiceNow requires the use of the single case study method.

Table 1 depicts our **data sources**. We used annual reports, shareholder documents, and further publicly available data such as analyst reports and news articles. The data provides different perspectives on the evolution of ServiceNow, i.e. from the organization’s perspective as well as from shareholders, partners, customers, and the market. We focus on publicly available data to support the longitudinal study design, as a-posteriori data gathering, especially interviews, tends to be biased, and considering the analysis period of 16 years, human memories tend to be clouded.

Type of Data Source	Yearly coverage	Number of publications (and total of pages)
Official annual reports	2012-2019	7 (1.203 pages)
Official investor relation reports	2012-2020	55 (696 pages)
Official product information documents	2006-2020	45 (350 pages)
Official company presentations	2013-2020	24 (1.034 pages)
Official customer service documents	2012-2020	8 (108 pages)
General publications	2013-2015	2 (20 pages)
HR documents	2015	3 (6 pages)
Partnership documents	2008-2019	19 (149 pages)
External reports (e.g. IDC, Gartner, Accenture)	2010-2019	33 (797 pages)
Total	2006-2020	196 (4.363 pages)

Table 1. Data Sources

We **analyzed the data** with a qualitative content analysis (Mayring 2015). We first created a narrative of the evolution of the organization (Pentland 1999). We then looked for specific events. We considered all occurrences having a strong impact on the development of ServiceNow's BM, i.e. impacting more than one BM component and triggering following events, as key events. Then, we deductively coded the identified key events into the nine elements of the BMC. We then aggregated these into a BM for each year of the analysis. Two researchers performed the coding independently. Cases that we disagreed on were discussed until an agreement was reached. To understand the evolution of the BM, we analyzed

the changes in the components of the BM chronologically for each year. We differentiated between primary BM changes, which are directly impacted by the relevant event, and secondary BM changes, which are a consequence based on the primary BM change. For example, in 2015 ServiceNow launched a store to provide customers access to content. We understand this key event as a primary change of the components channel and value proposition and at the same time the new activities and resources necessary to deliver this store as secondary changes. We subsequently used periodization, which is “[...] the process of dividing the chronological narrative into separately labeled sequential time periods with fairly distinct beginning and ending points” (Witkowski and Jones 2006) to derive three distinct episodes. These are based on the chronological overview of key events and subsequent BMs, resulting in a chronological illustration of changes on a timeline (Bohnsack et al. 2014), see Figure 1, as well as one aggregated BM per episode (summarized in Table 2).

To derive a **process model** we performed a cross-episode analysis (Antero et al. 2013). Specifying a process model lays out a set of mechanisms at work, which depict unfolding dynamics and explain events and outcomes (Cornelissen 2017; Langley 1999). We looked for within-episode and inter-episode similarities and differences (Eisenhardt 1989) as well as relationships between primary and secondary changes. Comparing insights from each episode, and also within the different BMs derived for each episode, we inductively identify consistent mechanisms and major changes. We looked for coherent configurations of the BM components between the episodes. Additionally, we looked for similarities or patterns in the changes, i.e. which components are affected, and if these are primary or secondary changes. With this approach of data analysis and synthesis, we identified different process steps of BM evolution, which, in the case of ServiceNow, lead to the overall evolution towards a multi-sided platform.

4 Findings

In the following, we first provide a narrative of key events in the BM evolution of ServiceNow. Subsequently, we introduce three distinct episodes through this process and elaborate on the respective BM changes. Lastly, we present a process model of BM evolution towards multi-sided platforms constituted of four distinctive mechanisms.

4.1 Key events of ServiceNow’s evolution

In the 16 years of ServiceNow’s company history, it developed from a small SaaS provider to a platform enterprise. The organization was founded as *Glidesoft, Inc.* in 2004. The original value proposition in our first analysis period was to deliver IT-solutions for IT departments, basically allowing to outsource IT operations to a managed cloud. For example, they offered a hosted service desk. This value proposition was extended in a second analysis period by developing a network of partners. ServiceNow started to enable partners to develop their applications based on the opening of their proprietary technological infrastructure towards them (single-side): The *Service Automation Platform*. Implementation partners helped customers to integrate the offerings into their system. In 2011, the founder stepped down as CEO and ServiceNow hired CEOs that have led large IT enterprises (e.g. Ebay, SAP). An IPO provided sufficient capital for further scaling. With the start of our third-analysis period with the introduction of an online enterprise application marketplace in 2015, ServiceNow aimed to “tap into partner ecosystem innovation” (ServiceNow 2016) and further opened the value creation logic towards a multi-sided platform. Complementing the introduction of an own store, ServiceNow started *CreateNow* as a third-party solution to build custom applications and a complementing developer program as well as an annual developer conference. In 2016, ServiceNow extended the strategic focus with the investment in “technology leadership” (ServiceNow 2017) and acquires various companies. In 2018, ServiceNow consolidated all offerings in one platform, the *Now Platform*, which enables partner and third-party application providers. Over this 16-year period, ServiceNow managed to continuously extend its network of partners and customers. Consequently, the company attained a significant market share as many global organizations rely on its offerings. ServiceNow extended its customer segments from IT departments of IT

enterprises to a diverse set of industries, including private, public, governmental, and educational organizations. This evolution is depicted in Figure 1 within three distinctive episodes.

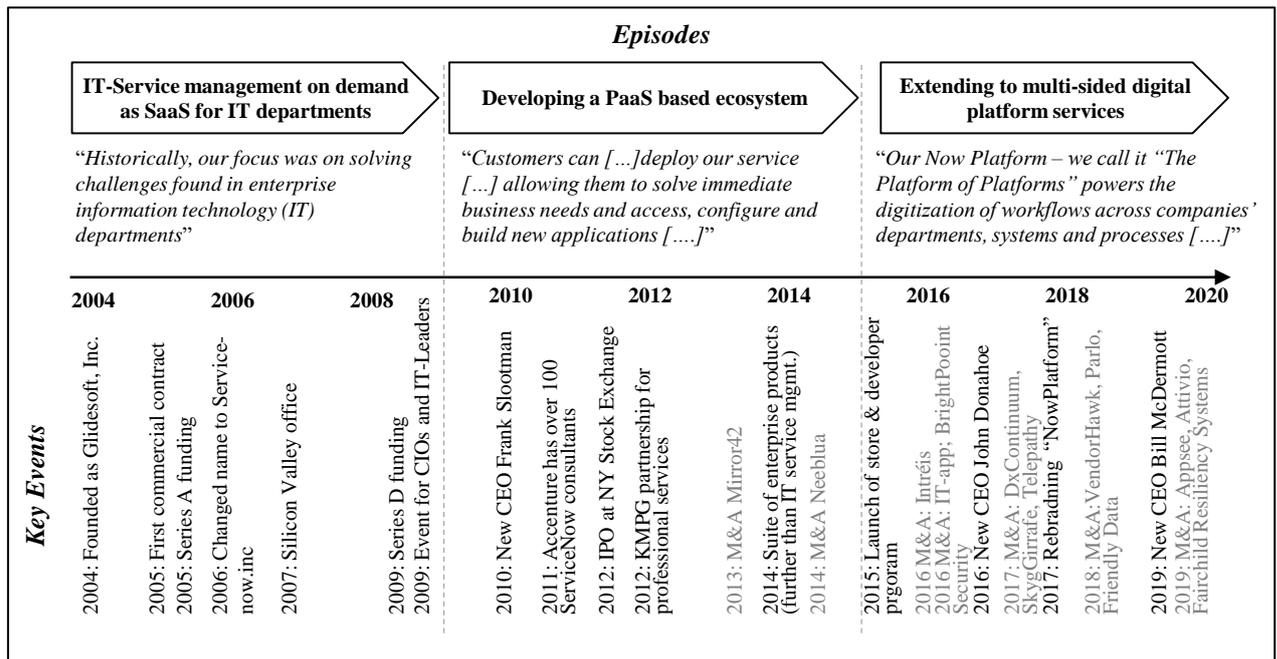


Figure 1. Episodes and Key Events of the Evolution of ServiceNow

4.2 Evolutionary episodes and corresponding business model changes

In the following, we detail the BM changes of the individual episodes. Figure 2 summarizes the evolution of the BM along the three episodes derived.

Episode Name	Key value proposition	Primary BM changes (in components of Business Model Canvas)	Secondary BM changes (in components of Business Model Canvas)	Key growth strategy
IT-Service Management on Demand (2004-2009)	Cloud-based delivery of IT solutions for IT-departments (SaaS)	<ul style="list-style-type: none"> Shifting <i>value proposition</i> to entire service suites Adding new <i>customer segments</i> like education 	<ul style="list-style-type: none"> <i>Activities</i>: Changing the name and engaging in founding rounds <i>Resources</i>: Start of strong growth by hiring employees and invest in technologies <i>Key partners</i>: starting initial consulting and integration partnerships 	<ul style="list-style-type: none"> Address new customer segments Extend service offering
Developing a PaaS based Ecosystem (2009-2015)	Deliver custom applications to automate enterprise (IT) operations (SaaS) Enable customers to develop their own applications (PaaS & IaaS)	<ul style="list-style-type: none"> Extending <i>value proposition</i> to offer partner ecosystem and PaaS, opening infrastructure to customers do develop their own applications Targeting new <i>customer segments</i> outside of IT departments to all organizational departments and new domains like governments Retaining strong <i>customer relationships</i>, but with partners engaging in consultation and implementation <i>Key partners</i>: Build strategic partnerships with large corporations like Accenture or IBM 	<ul style="list-style-type: none"> <i>Activities</i>: IPO, opening one side, starting 6-month update cycle, start of M&A, educating customers and partners <i>Resources</i>: further investing in technologies, hire workforce and new CEO Using partner's <i>channels</i> as additional sales opportunity; consulting and implementation partners to conduct projects 	<ul style="list-style-type: none"> Address new customer segments (outside of IT services) Build and extend partnerships Proprietary, single-sided platform strategy

<p>Extending to Multi-sided Digital Platform Services (since 2015)</p>	<p>Ecosystem orchestration and enablement of partners and third parties to create value (Multi-sided platform)</p>	<ul style="list-style-type: none"> • Extend <i>value proposition</i> to offer employee, customer, and administrative (finance, audit, security, IT, facilities, etc.) workflows for organizations from all domains • Strong <i>relationships</i> with <i>key customers</i>, yet often handled by responsible partners (ServiceNow becomes the solution provider, but face to customer often are partners) • Further engaging in strategic <i>partnerships</i> with large corporations like Microsoft, KMPG and extending partner base to over 1.200 • <i>Channels</i>: Introducing store and consolidating all offerings into one single platform; offering solutions via third parties like SAP store 	<ul style="list-style-type: none"> • Engage in various M&A <i>activities</i> to extend technology base and follow a strategy of technology leadership; start of developer conferences and extensive training of partners and third parties • Extend technological <i>resources</i> and know-how by M&A offering boundary resources • Follow existing revenue-sharing logic, extending <i>revenue streams</i> with various partnership programs and opening new streams based on new channels (e.g. SAP store) 	<ul style="list-style-type: none"> • M&As • Network effects • Developing & enabling partners • Multi-sided platform strategy
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Table 2. BM Evolution of ServiceNow

IT-Service Management on Demand (2004 – 2009)

In the first episode, ServiceNow employees a SaaS BM, offering IT solutions to IT departments. ServiceNow develops its own proprietary software and offers it to first customers. Value creation relies on direct marketing of their solutions to potential customers. Financial resources are created from the first revenues, but also by funding rounds. Within that episode, the value proposition is extended to services, instead of just software solutions, for example in 2008 with *IT Service Management on Demand*. Additionally, new *customer segments* are addressed. Originally, ServiceNow offered their services to IT-departments of IT organizations, such as a Helpdesk. In 2008, for example, an on-demand agreement with the Ohio State University Medical Center is agreed, moving the organization from a traditional enterprise IT service desk to customer IT service management (e.g. incident management). In 2009, ServiceNow hosts an event for CIO’s and IT leaders, actively building and scaling a network of strategic *key partners* and building the foundation for opening its’ value creation.

Overall, the BM evolved as the *value proposition* shifted from specific software solutions to entire service suites in this episode. In parallel, new *customer segments* were addressed iteratively throughout the episode. Secondary changes occurred in the BM components of *key activities*, *key resources*, and *key partners*. The company extended its *customer segments* and its know-how.

Developing a PaaS based Ecosystem (2009 – 2015)

In the second episode, ServiceNow pushes the development and growth of an ecosystem of partners and adds PaaS to their SaaS BM. In 2012, the *value proposition* is communicated as a cloud service provider to automate enterprise IT operations. ServiceNow addresses new *customer segments* and extends its *value proposition* by not only providing it to IT departments but addressing enterprise departments, as they “[...] expanded from an IT constituency to an enterprise wide constituency. “[...] Now we’re applying what we’ve learned to be able to address the needs of other parts of the enterprise”, the vice president of product strategy states in 2014 (Tsidulko 2014). During that episode, the company introduces a fixed 6-month update cycle of its core product, which it still embraces today. The updates are used as the baseline rhythm to extend and adjust the overall *value proposition* and addressing new *customer segments*. Within the second episode, ServiceNow aggregates and opens its technological infrastructure, the *Service Automation Platform*, towards its customers and *key partners*. ServiceNow still offers most services, covering IT, HR, and facility services, but enables partners and customers to develop their own custom applications. A 2013 published book by ServiceNow showcases how they start selling into new vertical industries. The 31 presented customer built-application stem from various industries: Coca-Cola (Consumer Goods), CERN (Research), NBA (sports association), Brit Insurance (Insurance), Bournemouth University (Education), Pacific Aluminum (Metals & Mining), Qualcomm (Communications), and Lemmikäinen (Construction) (ServiceNow 2013b). ServiceNow focuses on extending this strategy, planning in 2012 “to grow investments in our platform to better enable the creation

of custom applications to address specific business issues” (ServiceNow 2013a), financed by their IPO. The BM relies on consulting and implementation partners, e.g. KMPG or Accenture, partnering in 2012 for professional service offerings (accountingtoday.com 2012). ServiceNow offers consulting and training to partners and third parties, which in turn enable their customers. Regular product advisory meetings with partners allow co-evolution and integration of external know-how. The partners possess vertical know-how, specific to certain domains or processes. Enabling the partners thus not only increases sales capacities but extends the knowledge-base, as well as potential customers, as strong partners (e.g. established management consultancies) bring in their own customers. Still, ServiceNow is mainly responsible for the sales, while partners consult and implement.

In comparison to the first episode, the focus shifted from specific services to PaaS on top of SaaS and the enablement of customers to develop custom applications. Various partnerships were formed and developed in consulting and implementation. As such, partnerships become crucial to the BM. The BM evolution in this episode required additional *financial resources*, opened the value creation logic and addressed new *customer segments*. ServiceNow followed the strategy to deliver everything as a service: SaaS for end-users, PaaS for developers, and IaaS for operations (ServiceNow 2015a).

Extending to Multi-sided Digital Platform Services (since 2015)

In the third episode, ServiceNow's BM evolves towards a multi-sided platform. The trigger is the introduction of an enterprise application marketplace in 2015, the *NowStore*, opening the value creation process. Additionally, the introduction of *CreateNow* addresses and enables third parties to build applications, which can be offered via the store. To educate and manage the developer community, a complementing developer program as well as an annual developer conference is introduced. The role of partners within the BM increases further, which now engage in sales activities themselves, compared to consultancy and implementation in the prior episode. With the store, existing partners, as well as third parties, gain access to potential new customers, outside their existing immediate customer portfolio. A “technology partner program” (ServiceNow 2020d) enables the partners to distribute their solutions in the store. As such, the BMs of the partners are actively enhanced, and ServiceNow's value creation logic moves towards enablement and orchestration. Still, until today, it offers various applications itself but does merely engage in sales and implementation activities. The actual value is produced with and by partners and third parties. New *customer segments* are addressed iteratively, often with the help of strong partners. For example, a partnership with Microsoft Azure directly addresses governments. To enhance technology and knowledge base, various acquisitions occur within that time. Applications for mobile devices are introduced, and security, artificial intelligence, especially machine learning, as well as data visualization and analytics, are central towards ServiceNow's mission towards “technology leadership” (ServiceNow 2017), allowing for example to predict the needs of employees. During that episode, for the first time an integration partner, *Intréis*, is acquired and integrated, which was providing risk and compliance services developed on the ServiceNow platform. In 2019 ServiceNow extends its *channels* by offering mobile applications and an HR Service app via the SAP App Center. Within the 2020 Covid-19 pandemic, they capitalize their learnings, quickly offering designated solutions to tackle the change in everyday life, for example with the *Safe Workplace Suite*, aimed to safely return employees to their workplace. Further in the episode, ServiceNow aggregates its offerings into one single infrastructure, the *Now Platform*. Further building and developing of partnerships lead to the opening of the value creation logic, with an ecosystem allowing to create the various value propositions. The current CEO Bill McDermott underpins the opening: “our *Now Platform* - we call it ‘The Platform of Platforms’ - powers the digitization of workflows across companies’ departments, systems and processes by enabling existing systems and processes to work better together” (ServiceNow 2020a).

At the end of the episode, ServiceNow commercialized the knowledge, ideas, and assets of its customers, third-party developers, and other contributors and employed a multi-sided platform BM. As of 2020, it has strategic technology partnerships with tech-giants like Adobe, AWS, Cisco, IBM, Microsoft, SAP, and Slack, with established management consultancies and auditing specialists like KMPG, EY, Deloitte, and Accenture, and lists 1.248 partners on their portal (11/2020) (ServiceNow 2020c). By now consolidation of the partner ecosystem occurs, with Infosys and Accenture having acquired ServiceNow

partners itself, and Accenture even started a dedicated business group together with ServiceNow in October 2020. Although the *Now Platform* still contains numerous applications that were developed by the company itself, a large part of the *value proposition* today originates from the platform environment. The multi-sided platform leverages the combination of core functionalities provided by ServiceNow and third-party developed applications that use and build onto these core functionalities.

The episodes unveil that ServiceNow’s transformation from a SaaS provider to a platform enterprise was moderated by a continuous extension of its *value proposition* to enable ecosystem development, as well as the acquisition of externally developed technologies. To do so, the *customer segments* were iteratively extended, targeting new segments once a time to support growth. Additionally, external know-how was further integrated into the value creation process. Further changes in components were necessary, and happened iteratively, not tipping the overall balance of the components to strongly.

4.3 Mechanisms for business model evolution towards multi-sided platforms

Our results show how BMs can evolve from niche-focus to a multi-sided platform BM. A cross-episode analysis compares insights from each episode, and also within the different BMs derived for each episode, to identify consistent mechanisms and major changes. The derived process model (Figure 3) shows how a BM evolves from closed to open the value creation, in our case based on developing and opening a proprietary platform to one side, and subsequently further opening the BM to multiple sides.

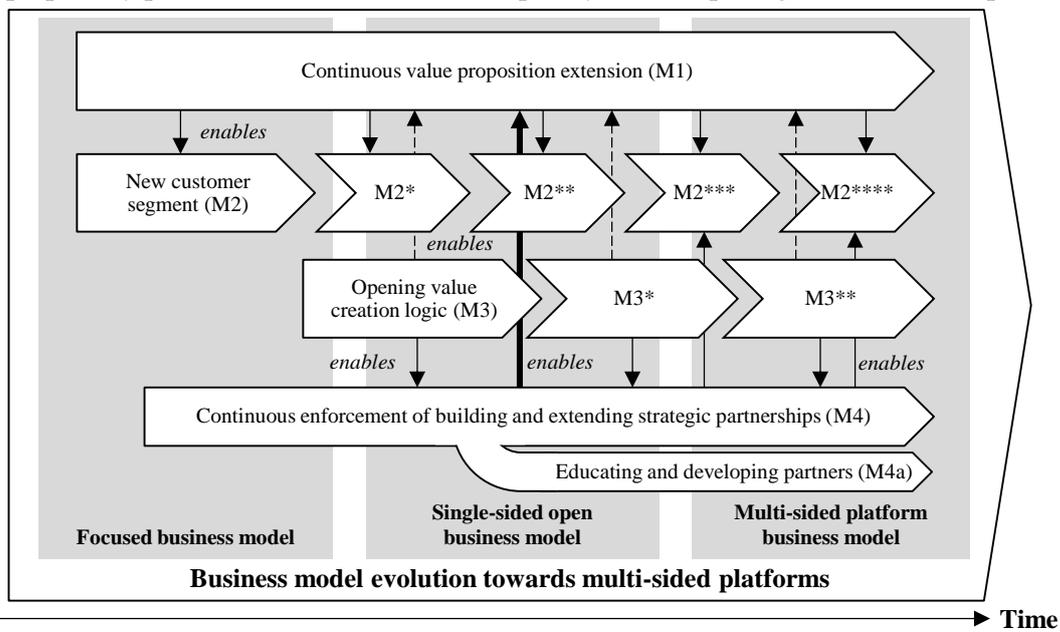


Figure 2. Model of business model evolution towards multi-sided platforms

Throughout all episodes, we identified the mechanism coined **continuous value proposition extension**, which was a primary BM change through all 16 years. To enable this extension, new products and services are constantly offering new value proposition, based on an extending organization’s technology base. ServiceNow offers large releases with new functionalities and services in a 6-month cycle. From single applications with a narrow focus, first services are first created by the operator. Later customers are enabled to create their own solutions. Lastly, existing customers, partners but also third parties are enabled to offer their applications, creating additional value propositions. Central is the enforcement of synergies with existing and additional value propositions. The outcome of this mechanism is the enablement of scaling a BM, for example by allowing to address new customer segments.

The second mechanism describes the **iterative addressing of new customer segments**. New customer segments are addressed selectively. On the one hand, existing value propositions are marketed to new customer segments. On the other hand, new value propositions are created to enable the opening of

entirely new segments, often with the help of partners. Importantly, new customer segments are addressed one at a time, allowing experimentation and a continuous learning process, which in turn allows entering new segments subsequently, as stated by the VP of product strategy: “[...] we're applying what we've learned” (Tsidulko 2014). a first scanning process of potential growth segments is performed, the data interpreted, and the opportunity seized by addressing a new segment, and in turn, the learnings transferred to foster the opening of further segments, while the existing ones are scaled and addressed operatively.

We identified the third mechanism of **iterative opening the value creation logic**. The value creation shifts from the BM operator towards partners and consequently towards third parties. The basic logic of value creation moves from building and marketing a product or service towards integration of partners into the value creation and the enablement of partners (see mechanism 4). For example partners are educated in sales activities, which provide the actual value to end-customers. The value creation logic is further opened towards additional partners, and consequently, towards third parties. The value creation increasingly relies on the provision of core functionalities used by partners and third parties, opening a platform from a technical perspective. Outcome of this mechanism is the extension of value proposition and the enablement to build and extend partnerships, allowing to leverage external ideas and know-how and incurring lower costs.

The fourth mechanism refers to the **continuous enforcement of building and extending strategic partnerships**. To evolve a focused BM towards a multi-sided platform, a fruitful network of partners is necessary. Initial implementation partners are developed towards enablement partners, fostering co-evolution, and continuous learning, for example by moving from a pure implementation partner to additionally engage directly in sales activities. Additionally, customers can be developed to offer their own solutions via a store, opening a platform from an organizational perspective. As such, ServiceNow engages in the management of value creation of its partners, extending their knowledge base and allowing them to scale their BM. In the case of ServiceNow, with the release of a store in 2015, already over 80 “[...] value-added business applications created by technology partners, solution providers, systems integrators and service providers“ as well as by ServiceNow were available to customers (ServiceNow 2015b). The development of the heterogeneous partners into new roles happens asynchronously. A specific behavior observed is the increase of ownership first, in the relation towards the partners, second in the partners themselves. Enforcing the mechanisms of extending value creation and a continuous learning process, in the case of ServiceNow, partners are directly acquired and integrated into the organization to extend the technology and knowledge base. The partners have their own customers and possess know-how in vertical domains, as such enabling to address new customer segments. In turn, the value proposition is extended by the partners' offerings.

Within Figure 2, the arrows show how the different mechanisms enable each other, for example, M1: Continuous value proposition extension enables M2: New Customer Segment. The thickness of the arrows within the figure is used to enhance readability and does not give any weighting of influence or importance.

5 Discussion

The results of the current study provide valuable insights into the evolution of BMs towards multi-sided platforms based on the case study of ServiceNow. From our data we find that ServiceNow traversed three phases from a close over a single-sided towards a multi-sided and open platform BM and utilized four different mechanisms. The findings have implications for research on BM evolution in general and BM evolution towards multi-sided platform BM in particular. Besides, using a BM lens, our study takes a new perspective on platform emergence and on the problem of platform launch strategies. Moreover, we provide insights on the opening process to engage selected partners in value co-creation first, before opening the platform to a broader range of partners.

First, our process model of BM evolution underlines the necessity of the BM lens (Massa et al. 2017) to develop new insights (Lanzolla and Markides 2020). We show the evolution of a BM based on continuous development and incremental changes, in line with Wirtz et al. (2016). Our case study shows how

an organization evolves its BM and achieves positive performance effects (see for example Foss and Saebi 2017). Compared to the proposition of Sosna et al. (2010) organizations do not necessarily have to rely on trial-and-error to innovate their BM. Rather, a controlled process of integrating and leveraging partners' know-how and resources within a learning process allows evolution without too much "error". Still, our findings enhance the proposition that successful BMs are rarely created out of the box (Chesbrough 2010; Christensen et al. 2016; Teece 2018), rather success is enabled by an evolutionary process and an adaptable BM. Further, the concept of BMs focuses on value creation and capture on the demand and supply side (Massa et al. 2017). Our mechanisms show the boundaries between demand and supply blur over time, which has mostly been neglected in prior studies on BM evolution. In contradiction to Bohnsack et al. (2014), who found that the value proposition did not change significantly in their observed cases, the value proposition development of ServiceNow was the main driver of its BM evolution. This further underpins the need to consider an evolutionary process taking various forms of value creation (Antero et al. 2013; Demil and Lecocq 2010). The mechanisms show that during BM evolution value creation is opened to enable co-creation (Vargo and Lusch 2010). Subsequently, activities change as well, as the operator of a BM shifts the focus of learning towards partner enablement and leveraging of external knowledge sources. While the role of partners within the evolution of BMs has been previously discussed (Demil and Lecocq 2010), our results show that also a partner's value creation is directly affected.

Second, the evolution of BMs towards multi-sided platform BMs represents an iterative process in which the focal firm strategically addresses platform sides sequentially or at the same time (Schirmacher et al. 2017). Prior work has proposed different platform launch strategies, which aim to increase the attractiveness of the platform's value proposition to different user groups (Stummer et al. 2018). However, these launch strategies lack practical applicability (de Reuver et al. 2018a; Engert et al. 2019), and platform owners are challenged with detailing these strategies without further guidance. The mechanisms identified in the current paper provide much-needed insights and details on the various activities necessary to establish a digital platform ecosystem based on a sequential entry strategy. The case of ServiceNow shows that platforms emerge over several years while traversing three evolutionary episodes. That is, during the first episode, ServiceNow applied a traditional BM, which allowed it to attract users by offering a targeted value proposition to IT departments. Having established a sizable user base, ServiceNow broadened its value proposition to the user base by enabling existing users to integrate the platform deeper into their existing IT systems by allowing them to customize parts of the platform increasing its specialization. Finally, once the value proposition for users was in place, by opening up their business to partners, ServiceNow leveraged third parties to increase the scale and reach of the platform. The identified mechanisms underlying the three phases show how the different stakeholders (i.e., customers and partners) are addressed before establishing a platform, allowing insights into the strategic dimension of platform emergence (Staykova 2018). Purposefully leveraging these mechanisms, ServiceNow managed to overcome the multitude of inhibiting factors associated with the diffusion of platforms such as establishing the community and governing partners (Wallbach et al. 2019).

Third, we witness throughout the evolution of ServiceNow's BM towards a multi-sided platform how value creation shifts from the BM operator towards partners and consequently towards third parties, while the operator increasingly focuses on ecosystem orchestration and enablement. As such, BMs become more open during evolution towards multi-sided platform BMs (Fehrer et al. 2018). Growth moves from the single firm towards a platform ecosystem (Fu et al. 2017), requiring new activities of an operator to successfully scale the BM. We show the importance of strategic partnerships, as such a form of value co-creation, to realize exponential growth with a non-exponential increase of investments. For ServiceNow, it would have required substantial additional financial resources to generate necessary know-how and hire additional employees to achieve the same growth rates. Organizational ambidexterity plays a crucial role: Leveraging existing resources, the BM operator still develops and markets its offerings, yet continuously shifts value creation towards ecosystem orchestration and enablement of partners and third parties (de Reuver et al. 2018b). As proposed by Alt (2020), our results underpin the necessity to design the BM of participating market sides in digital platforms but show that this can be enabled by partnerships and is not required solely by a platform owner.

6 Conclusion

To survive in a demanding competitive environment, companies adapt their BM (Foss and Saebi 2017; Massa et al. 2017). Existing literature studies the evolution of BMs from an organizational perspective. Yet, how a BM evolves from closed to open and further to a multi-sided platform BM is mostly unknown. At the same time, platform emergence lacks a detailed view on the level of BMs. We perform a single in-depth case study of the IT company *ServiceNow* to provide insights on how organizations transition their BM to multi-sided platforms. To do so, continuously extending the value proposition, while iteratively adapting further BM components can be a successful approach. Constant extension of the service portfolio enables addressing new customer segments and providing new offerings to existing ones. In turn, created learnings extend the scope of innovation and allows capturing economies of scale. In the case of *ServiceNow*, the extension of technological know-how was further accelerated by inorganic growth. Strategic acquisitions can be a valuable extension to know-how and existing services if integration occurs fast to profit from synergies. We identify the four mechanisms of *continuous value proposition extension*, *iterative addressing of new customer segments*, *iterative opening the value creation logic*, and *continuous enforcement of building and extending strategic partnerships*, showing how BMs evolve towards multi-sided platforms. In the case described, *ServiceNow* starts as a specialized IT-service provider and, at the end of the analysis period from 2004-2020, is an agile platform organization.

Our research contributes to the literature on BM evolution and platform emergence. First, we provide a process model on BM evolution. Our in-depth case study showcases how organizations can successfully master the ambidexterity challenge of a BM still contributing revenues and profits, but adapting it to ensure future effectiveness (Sosna et al. 2010). Further, the derived mechanisms show how paths of evolutionary dynamics occur and can be fostered within BM evolution. Second, we contextualize BM evolution to the context of digital platform ecosystems. Previous research has studied platform evolution, either by looking at how traditional product firms as a whole evolve to platforms (Zhu and Furr 2016) or how new platform firms are created intrapreneurly (Brusoni and Prencipe 2009). We provide a novel perspective, showing a service firm evolving its' BM towards a multi-sided platform, as such offering a contextualization of BM evolution for platform ecosystems. Further, the results show how organic and adjacent growth of organizations can lead to the evolution of BM towards multi-sided platforms. Third, we bridge literature on BM evolution and platform evolution. The study provides empirical evidence on the successful operationalization of a platform launch strategy by a platform owner through purposefully changing its BM to attract users and complementors. That way, we answer calls to advance research on digital platform ecosystems concerning the implementation of launch strategies and the related BM changes (de Reuver et al. 2018a). Further, our results support incumbents in the decision of changing their BM from traditional, linear models towards platform-based ones (Dell'Era et al. 2020; Hein et al. 2019b).

Single-case studies can produce valuable and detailed insights. Yet, with a single-case study research design, these insights are in their nature partly limited and cannot provide a general truth as they can only be generalized to a limited extend and lack further validation through e.g., cross-case analysis (Yin 2018). Part of our sources are official documents by the case company, which tend to be simplified and reduced in their complexity. Augmenting the current study with interview data yields important insights into the reasoning and complexity of the decision making processes associated with these often simplified statements. Additionally, the qualitative content analysis and coding performed is always partly subjective. Coding by two independent researchers mitigates this issue, but cannot fully resolve it. Consequently, the time intervals of the episodes identified only have limited validity, underpinning the nuanced nature of the iterative process of evolution. However, process phenomena, as is the evolution of a BM, have, in general, a fluid character spreading out over both space and time (Pettigrew 1992).

We see different avenues of future research, especially in the field of BM evolution. Future research might provide further mechanisms of BM evolution. An interesting point of consideration can be organizational learning theory and its role within BM evolution (Levitt and March 1988; Loon et al. 2020).

Similar, how strategic agility (Doz and Kosonen 2008) as well as organizational resilience (Vogus and Sutcliffe 2007) constitute towards BM evolution provides a fruitful avenue for future research. Another aspect is to consider the use of IT in BMs (Steininger 2019) and its different impacts onto BM evolution. Our approach of differentiating between primary and secondary BM changes and the resulting mechanisms can serve as an analytical framework. Longitudinal studies based on cases or periodic surveys can increase the validity to create robust practical guidelines to evolve BM towards multi-sided platforms. Furthermore, the context of enterprise software provides various avenues for future research for BM as well as platform literature alike.

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