When 1+1 is Greater than 2: Concurrence of Additional Digital and Established Business Models within Companies

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Abstract. Many established companies currently face digitalization challenges. Part of their answer is often the creation of new digital business models based on new technologies, which do not necessarily replace the existing business model but act as additional source of economic value. Having two business models in parallel in the same company creates the opportunity of synergies between these business models. However, knowledge about the interaction between digital and non-digital business models remains scarce. This study, currently in progress, contributes to research by filling this gap and identifying synergies already taken by companies of various industries, leading to a better understanding of digital business models within established companies and their interaction with existing, traditional business models. For practitioners this study provides insights on how to benefit from parallel business models within a company and thus how to better face digitalization.

Keywords: Digital business model, business model, synergy, digitalization

1 Introduction

BMW created DriveNow as IT-enabled business model [1] offering car-sharing. However, BMW didn't terminate its existing business model of manufacturing cars and therefore has two different business models in the same company, one traditional and one digital. In fact, as new digital business models often go hand in hand with companies' answer to digitalization and as many companies have not yet faced digitalization challenges [2], even more new digital business models and co-existence between the new digital business model and the established business model can be expected [3].

While research attention in the past focused on conflicts, synergies and mechanisms on how to manage two non-digital business models in the same company [4, 5], these business models differ mostly through low-cost vs. premium products [6]. However, digital business model relate to value creation, delivery and capture through new digital technologies [7, 8] and the potential differentiation to traditional business models is large. So far researchers shed light on the interaction between digital and non-digital business models primarily through the differentiation of channels (offline vs. online) in

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publishing and retailing [9, 10]. This leads to our research question: "What potential synergies exist between a new additional digital business model and the established business model?"

Through multiple interviews with managers from six companies from various industries, this paper identifies synergies between digital and established business models based on business model representation and the synergy theories of complementarities and resource relatedness [11-13].

The study at hand contributes to research by providing a better understanding of IT-enabled digital business models within established companies facing digitalization, answering the research call of Veit et al. [14]. Lastly, it supports practitioners to better manage and ensure the success of a new digital business model.

2 Theoretical Background

2.1 Digitalization

Digitalization can be described as the manifold sociotechnical phenomena and processes of adopting and using new digital technologies in broader individual, organizational, and societal contexts [15]. As of today this digitalization is a major challenge for many established companies from different sectors [2]. Hence, this topic is of importance for practitioners but is also recognized by IS scholars as it has reached top IS journals [16]. The focus is mostly on digital business strategies companies can employ to handle the digitalization [17, 18], often affecting changes in value creation with the use of new technologies leading to new digital business models.[19]

2.2 Business Model Representation

Many definitions for business models exist [20], the commonly accepted definition by Al-Debei et al.[14, 21] is: "The business model is an abstract representation […] of all core interrelated architectural, co-operational, and financial arrangements designed and developed by an organization [and] all core products and/or services the organization offers" (p.372). Furthermore, a digital business model is based on new technologies to create, deliver and capture value [7] e.g., video-on-demand services [14], departing from the differentiation of online vs. offline channels [10].

The business model representation from Steiniger et al. [22] (adapted from [7]) is used as he showed that its suitability to compare non-digital and digital business models without being too abstract. The nine components, grouped in four categories, of the business model representation are finally:

1. Product: Value Proposition
2. Customer Interface: Target customer, Distribution channel, Customer relationship
3. Infrastructure Management: Capability, Value configuration, Partnership
4. Financial aspects: Cost structure, Revenue Model

2.3 Synergies

The concept of synergy primarily comes out of the strategy and economics research [13]. The two types of synergies are super-additive value synergy and sub-additive cost synergy.

Super-additive value synergy is based on a complementary set of resources and can be described following the economic theory of complementarities as "doing more of one thing increases the returns to do more of another" [12]. Sub-additive cost synergy refers to the use of common resources across units and is therefore based on resource relatedness [11].

Similar to Radszuwill and Fridgen [23], the definitions of synergies can be adapted to the business model context with (a) and (b) being two business models:

- *Super-additive business model value synergy*: When the sharing of business model components between two or more business models leads to increased value compared to conducting the business models individually (Value(a+b) > Value(a)+Value(b)).
- *Sub-additive business model cost synergy*: When the sharing of business model components between two or more business model leads to lower costs compared to conducting the business models individually (Costs(a+b) < Costs(a)+Costs(b)).

3 Research methodology

This study follows the interpretive research principles of Klein and Myers [24] for qualitative, idiographic research using a multi-case approach [25-27]. We selected companies from various industries and size to allow for replicability. Only established companies having an additional digital business model for more than two years were chosen to ensure that they can sufficiently inform the research [28]. In each of the six cases two semi-structured interviews, based on an interview guideline, were conducted, on site or on phone, with two managers to discover different viewpoints and remove biases of interview partners [29, 30]. Additional documentation, publicly available or shared by interview partners served as secondary data source. Coding is done following the business model representation components as first order coding elements [31, 32]. Table 1 summarizes the cases and positions of interview partners.

Table 1. Selected cases and interview partners

Case ID	**Sector**	**Size** (number of employees)	**Interview partner**
1	High-tech	10,000 – 50,000	Head of Digital innovation unit
			Project manager within IT
2	Pharma-ceutical	> 50,000	Manager within digital innovation unit
			Team leader within IT
3	Automotive	> 50,000	Manager within digital innovation unit
			Team leader within IT

Case ID	Sector	Size (number of employees)	Interview partner
4	Utilities	10,000 – 50,000	Manager within digital innovation unit
			Team leader within IT
5	Logistics	< 10,000	Manager within digital innovation unit
			Chief Information Officer
6	Automotive	> 50,000	Head of Digital Innovation Unit
			Team leader within IT

4 First Results

Our initial research reveals potential synergies along several business model representation components and we focus in this section on case 1 only, to demonstrate first results. In case 1 the company built up a subscription-based platform, offering image recognition and analytics of images and data collected via medical technology of different manufacturers as new digital business model. Sales and maintenance of high-tech, e.g. medical technology underlie its traditional business model.

Super-additive business model value synergy: Through the new digital business model, the *value proposition* of the traditional business model is enhanced as existing products can be directly connected to the platform, thus offering higher value to similar costs. Also, in terms of *capabilities* the traditional business model benefits as knowledge about new capabilities of the digital business model such as cloud development or agile way of working are shared.

Sub-additive business model cost synergy: The development of the new digital business model is accelerated thanks to solid and reliable *distribution channels* within the traditional business model. In fact, existing channels (e.g., via industry fairs) were used to not only promote the traditional business model but also the new digital business model.

5 Discussion and Conclusion

This paper at hand can be seen as an initial examination of synergies between additional digital business models and established business models within companies. Despite being limited by the number of cases, first results indicate that the traditional business model benefits from super-additive synergies (e.g., complementary products) whereas the new digital business model is supported by sub-additive synergies (e.g., resource relatedness). Further analysis will create a more comprehensive overview of synergies, along all business model components, contributing to research and practice by a better understanding of new additional digital business models, grounded on synergy theory, and of companies' answer towards digitalization. Future research might focus on an in-depth quantitative analysis of the impact of business model synergies on the performance of a new digital business model.

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