A Systematic Analysis of how Practitioners Articulate Business Models across Disruptive Industries

Alina Marie Herting & Alexander Lennart Schmidt

Ongoing debates surround the role of business models in understanding the dynamics related to disruptive innovation. Too little is still known about how practitioners highlight different characteristics of business models across industries confronted with disruptive dynamics. This shortcoming in current debates hampers a better understanding of the context-dependent phenomenon of "disruption", ultimately limiting the development of adequate business strategies for incumbents and entrepreneurs alike. Consequently, we generated a systematic database of communicated business models from 1,095 relevant press releases and company reports published between 1995 and 2019. The business models from the retrieved articles were assigned to their corresponding industry using the Global Industry Categorization Standard (GICS) to allow for diverse categorization. Subsequently, we performed a deductive coding procedure, building on accepted business model component classifications. Our study contributes insights about relevant business model components, drawing on practitioner experiences in the face of disruptive dynamics.

Introduction

The phenomenon of "disruptive innovation" is frequently discussed amongst scholars and business practitioners alike. Recent discussions especially have acknowledged the crucial role of business models for spurring disruptive dynamics (Christensen et al., 2018; Cozzolino et al., 2018). Anchored in conceptual statements from Christensen (2006) and Markides (2006), the essential inducer of disruptive processes is argued to lie in business model innovation.

Simultaneously, scholars from the business model domain have discussed similarities and differences between business models (Baden-Fuller & Morgan, 2010; Teece, 2010). The "business model" concept has indeed been utilized to comprehensively understand how companies do business and perform processes of value creation, capture, and delivery (Schneider & Spieth, 2013; Foss & Saebi, 2017). With a continuous increase in researcher and practitioner interest in the

phenomenon of disruptive innovation (Christensen et al., 2018), the traditional technological view of disruptive innovation was challenged, ultimately highlighting the relevance of dynamic and flexible business model innovation (Christensen & Raynor, 2003; Cozzolino et al., 2018; Si & Chen, 2020).

Whereas existent debates increasingly discuss case-specificities of disruptive business models in particular industries, what we miss is a consolidation of these findings to advance discussions of disruption and account for the circumstance-contingency inherent in the phenomenon (Christensen, 2006; Hopp et al., 2018). Consequently, we follow Schiavi and Behr's (2018, p. 349) call "to identify similarities and differences between the cases of different sectors". Further, since business models can be conceived "as a performative representation" (Perkmann & Spicer, 2010) operationalized by articulating narratives (Ibid), for the purposes of this paper, we excerpted several disruptive business model characteristics from the

A Systematic Analysis of how Practitioners Articulate Business Models across Disruptive Industries   *Alina Marie Herting & Alexander Lennart Schmidt*

communication of practitioners and managers of corresponding companies.

In other words, little is known about how disruptive business models potentially differ across diverse industries in practice, or how practitioners within these industries highlight the particular characteristics of underlying disruptive dynamics. To enhance ongoing discussions with insights from practical communication about disruptive developments, our aim in this paper is to answer the research question: How do practitioners communicate business model characteristics across disruptive industries?

To answer this, we systematically searched for press releases and company reports about business models, published between 1995 and 2019. Subsequently, we assigned the retrieved business models to their respective industry by applying a developed classification scheme before performing a deductive coding procedure. Thereby, we built on accepted business model component classifications (Wirtz et al., 2016) to uncover which business model components are highlighted by managers across eleven industries. Besides delivering insights regarding the quantification of highlighted business model components among industries, we further present inside views into the particular ways practitioners communicate characteristics of business model components, and how they are linked to their respective disruptive market dynamics.

Theoretical Background

From disruptive innovation to disruptive business models
Following Christensen et al. (2018), disruptive innovation describes a process in which an entrant with an innovative business model is able to challenge established industry incumbents, ultimately taking over large parts of the mainstream market. In this regard, the increasing pace of technological advance enables a myriad of disruptive technologies, each of which bear potential for respective new disruptive business models (Cozzolino et al., 2018; Kumaraswamy et al., 2018).

According to the specificities of disruptive business processes, new entrants emerge, targeting the bottom of the market, which is widely neglected by incumbents because of limited profit potential. Departing from this market foothold in the niche, entrants develop their business models, increasingly aligning with mainstream

customers' demands, ultimately attracting larger shares of the market. These dynamics challenge incumbents to a different degree compared to companies attempting to sustain their innovations, which depart from profitable mainstream market segments (Christensen et al., 2015).

Disruptive innovation was initially attributed to a technology-focused view. This was revised in 2006 as researchers acknowledged that disruptive dynamics are rooted in the respective business model, which is built on individual disruptive technologies (Christensen, 2006; Markides, 2006). In other words, disruptive dynamics arise from the strategic choices performed by positioning a new business model in a disruptive way relative to existing mainstream alternatives (Christensen et al., 2018). This underlines that disruptive technology and disruptive business models are disparate phenomena (Cozzolino et al., 2018). Consistently, Chesbrough and Rosenbloom (2002) stated that the failure or success of a company in a competitive environment depends on integrating technology into an applied business model. The concept of "business models" has thereby proven itself as a critical concept in understanding the dynamics related to the complex phenomenon of disruptive innovation (Chesbrough & Rosenbloom, 2002; Christensen, 2006; Markides, 2006; Kumaraswamy et al., 2018).

Business models and the role of underlying components
Despite the early divergent understanding of business models, recent discussions and debates have agreed on the key dimensions of a business model; namely, value creation, value delivery, and value capture (Zott & Amit, 2010; Wirtz et al., 2016). Referring to the decisive role of a business model in inducing disruptive dynamics, current research is increasingly interested in the characteristics of disruptive business models (Amshoff et al., 2015; Teece, 2018; Trabucchi et al., 2019). Fielt (2014) identified three main areas of business model research that enable researchers to gain a complete understanding of the concept: definitions, components, and archetypes. Hence, research already has engaged in investigating definitions and archetypes of business models in the context of disruptive innovation (Amshoff et al., 2015; Trabucchi et al., 2019).

However, still little is known regarding the business model components (also known as "elements") which, as we argue here, along with others, are needed to provide a detailed view of the overall business model

A Systematic Analysis of how Practitioners Articulate Business Models across Disruptive Industries   *Alina Marie Herting & Alexander Lennart Schmidt*

(Wirtz et al., 2016). More precisely, these components describe "what a business model is made of" (Fielt, 2014). Further approaches describe the underlying elements of a business model as "activity system" (Zott & Amit, 2010), as well as a more details about a company's activities to create and capture value (Chesbrough & Crowther, 2006). Concerning business model components, researchers have started to offer various approaches in terms of their corresponding structure. The hitherto most prominent presented structure is the Business Model Canvas by Osterwalder et al. (2010).

Additionally, Johnson et al. (2008) propose to define a "business model" based on four components for value creation and value delivery; namely, customer value proposition, profit formula, key resources, and key processes. Motivated by the variety of interpretations regarding business model components, Wirtz et al. (2016) contributed to the debates by presenting a systematic review of business model components. The authors proposed nine components to grasp the modularity of the business model concept: strategy, resources, network, customer, market offering, revenue, manufacturing, procurement, and finances (Wirtz et al., 2016).

Since a business model component can be observed in a non-static form, research has also provided insights in the development of industry-specific business models once competitive changes in the environment occur (Zott et al., 2011). Based on this, competitive advantages can be realized through continuously innovating the components of a business model (Markides & Charitou, 2004). Consistently, Foss and Saebi (2017) recently defined the related concept of business model innovation as "designed, novel, nontrivial changes to the key elements of a firm's business model and/or the architecture linking these elements".

As mentioned above, many researchers contributing to the business model research have focused on detecting underlying structures and shared characteristics of components. In this regard, Teece (2010) stated that "successful business models very often become, to some degree, 'shared' by multiple competitors". Following this, business models can be used as recipes for how to do business in a specific industry (Baden-Fuller & Morgan, 2010), or describe respective archetypes (Bocken et al., 2014; Fielt, 2014; Gassmann et al., 2014; Ritter & Lettl, 2018). While the notion of business models as recipes serves to instruct the involved actors, Perkmann and Spicer (2010) go further to classify

"business models" as narratives that construct "a representation of how business might succeed or thrive in a particular environment". Functioning in a narrative manner closely links the characteristics of business models to how they are communicated and highlighted by market practitioners, making the detailed communication of individual business models a relevant and required competence for managers (Sousa & Rocha, 2019).

Methodology

To deepen our understanding of how the highlighted business model components differ among industries, we conducted a qualitative content analysis. We based our analysis on secondary data in the form of press releases and company reports. Our aim was to receive holistic information about companies' actions, motives, and outcomes (Dahlin et al., 2016).

Step 01: Data collection and selection
In the first step, we collected data using the database LexisNexis. As we particularly aimed to investigate differences among business models in a disruptive context, we operationalized the domains by identifying keywords based on previous reviews in the research area of disruptive innovation (e.g. Hopp et al., 2018; Petzold et al., 2019). By combining two keyword-clouds (see Table 1), articles must at least contain one keyword from each cloud. To ensure a contextual fit of selected articles with the concepts of interest, we further adjusted the subjects of publication as selection criteria and just allowed the subjects business, company activities and management, reports, reviews and sections, science and technology, presses, and reports to be part of the analysis. Additionally, because the concept of "disruptive innovation" was introduced in 1995 (Bower & Christensen, 1995), only material that was published after 1995 was considered.

We identified 1,404 articles. After removing duplicates (289) and resume lists (20), a set of 1,095 relevant articles was carried forward to the analysis phase.

Step 02: Industry-classification scheme
Before analyzing the identified articles, we specified the corresponding industries to allow for comparisons. We therefore built on the categorization scheme consisting of eleven industries as defined by the Global Industry Classification Standard and including selected sub-industries (GICS). Following Bhojraj et al. (2003), we assigned each article to one of the following industries:

A Systematic Analysis of how Practitioners Articulate Business Models across Disruptive Industries   *Alina Marie Herting & Alexander Lennart Schmidt*

Table 1. Keywords of data collection

Keyword (OR)	AND	Keyword (OR)
"disruptive innovation*"		"business model*"
"disruptive technolog*"		"business idea*"
		"business concept*"

Source: Self-provided

- Energy: Energy equipment and services, oil, gas, consumable fuels.
- Utilities: Electric utilities, gas utilities, multi-utilities, water utilities.
- Real estate: Equity real estate investment trusts, real estate management and development.
- Financials: Banks, insurance.
- Information technology: Software and services, hardware.
- Communication services: Communication, media, entertainment.
- Consumer discretionary: Automobiles and components, consumer durables and apparel, retailing, education.
- Consumer Staples: Food, food and staples retailing, household and personal products.
- Health Care: Equipment and services, pharmaceuticals, biotechnology, life science.
- Materials: Chemicals, metals, mining, containers, packaging, construction materials.
- Industrials: Capital goods, transportation, commercial and professional services.

We used the software tool MAXQDA for classifying the relevant articles into their respective industries. The dictionary tool allowed for categorizing words and phrases with similar meanings into equal categorical groups. In particular, the GICS classification scheme offers 158 sub-industries which were partly used as keywords for the classification process. We further refer to an industry-specific classification of the collected data to ensure an understanding of the disruptive innovation theory within each case. In particular, we solely allowed keywords of sub-industries to be part of the analysis whose industry context has been formerly discussed by scholars in relation to disruption, thereby acknowledging the particular role of contexts in the interpretation of disruptive dynamics (Si & Chen, 2020). Table 3 presents examples of disruptive business models from our collected data for each industry, accompanied by anchor references discussing disruptive dynamics in respective industries, as well as corresponding business models.

Step 03: Coding scheme

Subsequently, we developed the deductive coding scheme based on the aforementioned integrated business model components proposed by Wirtz et al. (2016) that served as theoretical grounding. By introducing nine business model components, this approach was appropriate as we aimed to generate an overview regarding practical communication about the various characteristics of disruptive business models. To utilize these nine components as a coding scheme, we created a set of keywords for each of the business model components based on Wirtz et al.'s "overview of selected business model components" (2016) and "components of the integrated business model" (2016). Additionally, we extended the list of keywords based on recent reviews of the business model concept (for example, Schneider & Spieth, 2013; Foss & Saebi, 2017).

Table 2 presents these nine sets of keywords, which constitute a basis for the following deductive coding process.

Step 04: Deductive content analysis

Two independent researchers conducted the qualitative content analysis, assisted by the software program MAXQDA18 for coding textual data. By applying the depicted sets of keywords, we used standard content analysis techniques (Lincoln & Guba, 1985).

We controlled for inter-coder reliability by using the dictionary-tool of MAXQDA, while additionally performing the coding process of all relevant articles independently of each other. We used upcoming coding divergence for discussions to come to a consensus (Lincoln & Guba, 1990), thereby further enhancing the reliability of the analysis and aiming for reproducibility (Krippendorff, 2004).

The primary purpose of the textual coding was to identify the quantitative distribution of coded keywords and thus, to transform keywords into numbers. That way, the quantitative display of data helps in organizing the information by compiling them into matrices,

A Systematic Analysis of how Practitioners Articulate Business Models across Disruptive Industries   *Alina Marie Herting & Alexander Lennart Schmidt*

Table 2. Set of keywords

Business model component	Set of respective keywords
Strategy:	strategy model; core strategy(ies); managerial process(es); organizational process(es); company's strategy; firm's strategy; business' strategy; strategy of the firm; strategy of the company; strategy of the business; positioning, company position.
Resource:	resources model; core asset(s); core competency(ies); core resource(s); key resources; human resources; physical resources; capital resources; financial resources; company('s) resource(s); firm('s) resource(s); business('s) resource(s); resources of the company; resources of the firm; resources of the business; company('s) asset(s); firm('s) asset(s); business('s) asset(s); asset(s) of the company; asset(s) the firm; asset(s) of the business.
Network:	logistic stream; network model; key partners; partner model; value distribution; partners network; company('s) distribution; firm('s) distribution; business('s) distribution; distribution of the company; distribution of the firm; distribution of the business; company('s) network; firm('s) network; business('s) network; network of the company; network of the firm; network of the business.
Customer:	target costumer(s); market segmentation; customer models; channels; channel configuration; customer segmentation; customer segment(s) distribution channel(s); company('s) customer(s); firm('s) customer(s); business('s) customer(s); customers of the firm; customers of the company; customers of the business
Market Offering:	market offering model; value proposition; value stream; value architecture; customer value; market offer(s); market offering(s); company('s) offering(s); firm('s) offering(s); business('s) offering(s); offering(s) of the company; offering(s) of the firm; offering(s) of the business; company('s) product(s); firm('s) product(s); business('s) product(s); product(s) of the company; product(s) of the firm; product(s) of the business; company('s) service(s); firm('s) service(s); business('s) service(s); service(s) of the company; service(s) of the firm; service(s) of the business.
Revenue:	revenue model; profit formula revenue form; revenue stream; company('s) revenue(s); firm('s) revenue(s); business('s) revenue(s); revenue(s) of the company; revenue(s) of the firm; revenue(s) of the business; company('s) profit(s); firm('s) profit(s); business('s) profit(s); profit(s) of the company; profit(s) of the firm; profit(s) of the business.
Manufacturing:	manufacturing model; key activity(ies); combination of goods; core activity(ies); value configuration; value generation; core operation(s); core processes(s); service provision(s); company('s) activitiy(ies); firm('s) activitiy(ies); business('s) activitiy(ies); activitiy(ies) of the company; activitiy(ies) of the firm; activitiy(ies) of the business; company('s) process(es); firm's process(es); business' process(es); process(es) of the firm; process(es) of the company; process(es) of the business. company('s) operation(s); firm's operation(s); business' operation(s); operation(s) of the firm; operation(s) of the company; operation(s) of the business.
Procurement:	procurement model; resource(s) acquisition; production factors; procurement
Finance:	accounting model; accounting system; cost(s) structure; financial model; financial arrangement(s); company('s) cost(s); firm('s) cost(s); business('s) cost(s); cost(s) of the company; cost(s) of the firm; cost(s) of the business

A Systematic Analysis of how Practitioners Articulate Business Models across Disruptive Industries   *Alina Marie Herting & Alexander Lennart Schmidt*

networks, graphs, or charts (Neale, 2016). Consequently, the distribution of keywords in the industry-assigned articles provides us with information about the importance of a specific business model component-keyword in the corresponding industry (Krippendorff, 2004). The code distribution constituted a proxy to evaluate the highlighted relevance of business model components per industry. This detected keyword-frequency in terms of code distribution within each

industry was mutually compared with all other GICS-industries to detect differences as well as discrepancies across industries.

Ultimately, the coded keywords were utilized as orientation, eventually extracting text passages from practitioners to give examples and insights into their individual business model component-communication across industries. The extraction-phase is a further step

Table 3. Overview of assigned press releases and examples of observed business models

Industry	Number of press releases & company reports	Exemplary disruptive business models	Exemplary references from literature
Financials	255	· Peer-to-peer platforms for credits & trading · Micro credit solutions	Markides & Oyon, 2010; Zhang et al., 2018
Information technology	206	· On-demand software-as-a-service solutions · Subscription-based cloud services	Kaltenecker et al., 2015; Cohen & Gans, 2017
Health Care	146	· Supply of good enough medical instruments · Digital diagnostics	Heikkilä et al., 2015; Winterhalter et al., 2017
Communication services	130	· online supply of IP-based communication · Freemium/on-demand video streaming services	Hynes & Elwell, 2016; D'Ippolito et al., 2019
Consumer discretionary	96	· Platforms for car- and/or ridesharing · No-frill, digital universities	Laurell & Sandström, 2016; Osiyevskyy & Dewald, 2018
Industrials	84	· No-frill airlines · E-mobility products and transportation services	Habtay, 2012; Woo & Grandy, 2019
Utilities	73	· Decentralized packaged water systems · Demand response services for utility suppliers	Reficco & Gutiérrez, 2016; Tayal, 2016
Energy	42	· Peer-to-peer power grid · Energy trading based on blockchain technology	Mahama, 2012; Doomernik et al., 2019
Materials	26	· Micro mines & mills · Cloud based building information modeling	Koen et al., 2011; Nellippallil et al., 2019
Consumer staples	20	· Services enabling connected cleaning (IoT) · Supply of good enough household products	Rajala et al., 2018; Brown & Anthony, 2011
Real estate	17	· Low-cost brokerage · Automation of customer service (robo-advisors)	Dewald & Bowen, 2010; Osiyevskyy & Dewald, 2015

Source: Self-provided

A Systematic Analysis of how Practitioners Articulate Business Models across Disruptive Industries   *Alina Marie Herting & Alexander Lennart Schmidt*

towards controlling for whether the retrieved data relate to the communication of business models in a disruptive context. By following Anthony et al.'s (2008) simple fit assessment, which provides "a quick check as to whether a team is following a disruptive approach", we compared extracted passages from the sources with examples of how managers actually communicate in disruptive situations.

Findings

We started our analysis by applying a classification scheme and assigning each relevant article to a corresponding industry. Table 3 presents how many articles were assigned to each specific industry, with an overall number of 1,095 articles integrated into the analysis. The numbers are presented in descending order. This indicates in which industry managers communicate more frequently about their business models in the context of disruption.

The content analysis' deductive approach provides insights into how the coded keywords of each business model component are distributed across the eleven industries. Across the whole sample, we generated 1,113 business model component related codes.

In general, with 231 coded component-keywords, the component customer reflects the highest number of codes. Opposed to that, the business model component financial with 29 codes indicates having limited relevance for practitioners operating in industries which face disruptiveness. Besides indicating the number of assigned press releases and reports, we additionally outline how often specific components were found across the 11 industries. The following list illustrates the quantity of exclusively observed components per industry.

- Financials (256): Network (58), Customer (53), Strategy (34), Market offering (33), Resources (23), Revenue (21), Procurement (15) Financials (12), Manufacturing (7).
- Information Technology (208): Customer (60), Network (44), Market offering (32), Procurement (23), Revenue, (16), Strategy (14), Resources (11), Manufacturing (6), Financial (2).
- Health Care (189): Procurement (46), Customer (30), Network (30), Strategy (27), Market offering (21), Resources (14), Manufacturing (8), Revenue (7), Financial (6).
- Communication Services (119): Customer (27),

Strategy (19), Revenue (16), Market offering (15), Network (14), Procurement (11), Manufacturing (7), Financials (6), Resources (4).
- Consumer Discretionary (68): Customer (29), Network (10), Strategy (7), Market offering (6), Procurement (6), Resources (5), Revenue (3), Manufacturing (2).
- Industrials (138): Network (42), Procurement (24), Strategy (23), Customer (15), Market offer (12), Manufacturing (11), Resources (8), Financials (2) Revenue (1).
- Utilities (26): Strategy (6), Market offering (6), Manufacturing (4), Revenue (3), Procurement (3), Network (2), Resources (1), Customer (1).
- Energy (28): Revenue (12), Market offering (5), Customer (5), Strategy (3), Resources (2), Financials (1).
- Materials (45): Procurement (11), Network (7), Strategy (7), Revenue (6), Customer (6), Resource (4), Manufacturing (2), Market offer (2).
- Consumer Staples (31): Network (13), Revenue (10), Customer (3), Strategy (3), Market offer (1), Manufacturing (1).
- Real Estate (5): Resource (5), Customer (2), Strategy (1).

Discussion and Contribution

In this paper, we provide an overview of the most pertinent business model components according to practitioners communicating what is to be confronted with disruptive developments across several industries. Although many researchers have previously contributed in detecting patterns of disruptive settings across industries (Amshoff et al., 2015; Garbuio & Lin, 2019), our approach suggests that the importance of the business model components for disruptive business models in practice is communicated differently amongst the studied industries. Our findings deliver a quantification of distributed business model components across industries confronted with disruptive dynamics by taking a 'bird's-eye view' of how practitioners highlight the respective components. Hence, findings reflect the relevance of these components based on practitioners' statements per industry on a meta level, thereby allowing for a more comprehensive orientation.

We contribute through this research to ongoing debates in the disruptive innovation domain by discussing the different roles of business model components across industries and demonstrating how managers interpret the influence of business model components when being confronted with disruptive dynamics.

A Systematic Analysis of how Practitioners Articulate Business Models across Disruptive Industries   *Alina Marie Herting & Alexander Lennart Schmidt*

In the following, we discuss a selection of the most relevant business model components across industries, conclusively illustrated and enriched with statements from practitioners. Table 4 provides a comprehensive overview of the business model components, industries, and the identified intensity of code distribution. Empty boxes represent business model components for which our data did not suggest any codings in the respective industry, or just a minimal number of codings that did not indicate commonalities in the corresponding industry.

Our empirical results suggest that the business model component customer is the most communicated across industries. Following Wirtz et al. (2016), companies that state to focus on the customer-component concentrate on value towards target groups, including "products and services for specific customer segments of the business model". This component is especially highlighted by practitioners in the industries of Real estate, Consumer discretionary, Communication services, Information technology, and the Financial industry.

Within our data, practitioner statements about integrating and targeting customers can be distinguished across industries. From the perspective of Real estate and Communication services, managing the customer-component has the objective to "expand distribution channels" [CM090_RE], with practitioners taking over the role as "head of Emerging Channels responsible for the development and support of new distribution channels" [CM027_CM]. These findings are in line with Christensen et al. (2018), as well as Govindarajan et al. (2011) disclosing disruptive dynamics in targeting overlooked or unserved markets. However, we also detected a large focus in manager statements, especially in the industries of Information technology and Consumer discretionary, striving "to learn how to develop and nurture lasting customer relationships" [CM113_IT] in existing segments. According to this, practitioners from an offshore IT and software development company revealed that their "unique kind of disruptive innovation in its business model focusing on value centricity […] has resulted in deepening customer relationships" [CM088_IT]. An articulated lever to manage customer relationships for practitioners is thereby a simultaneous integration of different on- and offline channels, whereas managers "increasingly seek to strengthen with their customers directly through online channels" [CM161_IT] and also by use of "extended omni-channels solutions" [CM073_CD]. As a result, the data provided insight of

practitioners in the Information technology and Consumer discretionary industries formulating strategies in a way that customers are "more and more integrated across all channels" [CM101_CD].

We additionally find statements giving evidence for the customer-component being highlighted in the Financial industry. In detail, practitioners operating in this industry are found out to regularly combine both previously described strategies, with "banks that have made market changes or improvements within the distribution network to either existing channels […] or have introduced a new channel or distribution strategy that has benefited customers" [CM025_FI]. This strategy was found to be further applied by a bank investing in startups to transform the financial industry:

> "This transformation is already taking place with the development of new digital channels and means of payment that are generating new customer relationship models" [CM025_FI].

To conclude the role of the customer-component in industries confronted with disruptive dynamics, practitioners from different industries effectively apply diverse channel- and distribution-strategies, all of them which deal with targeting new customer segments or strengthening the relationship to existing segments.

Another business model component that gained momentum across practitioners in different industries is based on a network-oriented view, with networks and partnerships considered as having "a great influence on the value creation of a company" (Wirtz et al., 2016). This component is found to be highlighted by practitioners operating in the industries Information technology, Financials, Industrials, and Consumer staples. It is not surprising that this component is of decisive importance for managing business models in disruptive industries. Notably, in systemic industries, where industry stakeholders are dependent on each other, the network component appears to be relevant (Ansari et al., 2016). By comparing how practitioners weigh and implement the network-component, we discover two highlighted functions of networks that foster disruptive dynamics in their business models.

First, in the industries of Information technology and Financials, networks play an essential part in formulating business model innovation. Thereby, "the value of strong partnerships to create and promote innovative solutions is central to the business"

A Systematic Analysis of how Practitioners Articulate Business Models across Disruptive Industries   *Alina Marie Herting & Alexander Lennart Schmidt*

[NM042_IT]. This sort of co-creation activity involves diverse parties, as managers aim to operate on "formulating strategies with new business partners" [NM038_FI], as well as for "working closely with our global customers" [NM153_FI]. Accordingly, several practitioners also expressly use networks as an explicit source for their disruptive business models. This is illustrated by an international hard- and software company architect and builder:

> "Working with major international corporate and technology partners [...] and leading universities, [the company] first identifies global unmet market needs and then targets and exploits these by the systematic creation of successful, disruptive technology businesses" [NM153_FI].

Another example of the crucial role of networks in the Information technology sector is presented by a supplier of multi-party digital platforms, stating:

> "With a vast number of retailers, distributors, manufacturers, carriers and third-party logistics onboarded, [the company] offers a disruptive technology and business model that enables our community to slash inventory, improve service levels, and speed up the supply chain in order to outpace the competition" [NM083_IT].

Second, in Industrials and Consumer staples, the network-component is highlighted to be used for reshaping practitioners' existing processes and offerings. Thereby, companies from the industrial industry leverage their "core competencies with those of the outsourcers and build solid long-term relationships" [NM052_IN]. Additionally, managers from the industry of Consumer staples expressed themselves to have "signed warehouse relationships with [a company], which gives us capabilities to inventory products with improved logistics" [NM158_CS], and thus, to form networks that improve their actual offer.

The next business model component found to be in discussion amongst practitioners was revenue, which is communicated to be shared as the center of the business models of the industries Consumer staples and Energy. Following Wirtz et al.'s (2016) declaration of the component, it is characterized by a large number of potential indirect and direct revenue streams with an overlying goal to generally maximize revenues.

Concerning the analyzed statements, we again observe the revenue-component to be highlighted by practitioners confronted with disruptive dynamics in their industries in a twofold way. On the one hand, this allows a company "to convert new technologies into revenue streams" [RM012_CS]. On the other, it is "capable of supporting additional revenue streams (zones) unrelated to its core operations" [RM032_CS].

By giving attention to monetize new technologies, especially companies of the Energy sector emphasize the need to design revenue models around a new technology. An example of this constitutes a company that provides energy from natural resources and reveals having "identified two potential applications for the technology which could present very significant revenue streams in the future" [RM013_EN]. Further, a supplier in the oil-industry focusing on technical innovations to create value assumes that their "relatively low-cost and environmentally benign disruptive technology has the potential to unlock [...] the opportunity for the group to develop additional revenue streams" [RM075_EN]. Besides this, we also find evidence in both Consumer staples and Energy industries that different revenue strategies are applied to "generate more predictable and profitable revenue streams within the product line" [RM013_EN], and thus enable new ways to monetize existing offerings.

An additional example of a business model component with differing importance across industries according to practitioners is procurement. This component has been found to play an essential role in company business models within the Health care and Material industries. Following Wirtz et al. (2016), the Procurement component has the potential to evoke "far-reaching consequences for other components".

Both industries face challenges concerning a high degree of dependence on external parties within their supply chain, making the intermediation of Procurement a relevant step in managing disruptive innovation (Edler & Yeow, 2016). This especially holds for the Health care industry as decision-making authorities concerning procurement are in general governmentally steered. Managers within this industry are aware of those contingent hampering challenges and acknowledge that "procurement is power. It is extremely difficult for social entrepreneurs to break into government funding sources because the procurement system is set up to favour traditional approaches rather than disruptive technologies" [PM005_HC]. Consequently, practitioners from both industries

A Systematic Analysis of how Practitioners Articulate Business Models across Disruptive Industries   *Alina Marie Herting & Alexander Lennart Schmidt*

Table 4. Exemplary characteristics of respective business model components per industry.

Industry (S&P & MSCI, 2018)	Customer	Network	Strategy	Market offer	Revenue	Resources	Manufacturing	Procurement	Financial	Intensity of Industry distribution
Real Estate	· Expansion of distribution channels · Targeting of emerging markets					· Focus on pioneering skills through human resources				○
Consumer Staples		· Networks to improve existing offer			· Transforming new technologies into revenue streams					○
Materials	· Expansion of distribution channels to world market		· Elimination of intermediaries		· Revenue from core business across (emerging) markets			· Strong dialog with regulators		◔
Energy	· Building of lasting customer relationships · Customized offer to B2B			· Efforts to offer new technologies to mass market	· Transforming new technologies into revenue streams					○
Utilities			· Positioning-efforts to enter new markets	· Long-term contracts with B2B multi-modal customers			· Product improvement by manufacturing innovation			○
Industrials	· Transformation towards customer-centricity	· Networks to improve existing offer	· Focus on positioning of innovative products for diversification	· Modular offer & multi-modal services		· Focus on pioneering skills through human resources	· Digital transformation	· Integration of new technologies (e.g. AI) in supply chains		◑
Consumer Discretionary	· Building of lasting distribution channels	· Networks as source of innovation	· Innovation as core strategy · Efforts to enter new markets					· Aggregation of demand		◔
Communication Service	· Expansion of distribution channels mainly with online channels	· Networks to utilize other firms' assets	· Focus on technology enabling business models		· Generate new revenue streams from existing offer			· Challenge of high competition due to missing diversification		◔
Health Care	· Expansion of distribution customer relationships	· Partnerships with logistic services	· Focus on shift to e-Business	· New technology to enhance services · low-cost models		· Investments in new technological resources (e.g. robotics)		· Challenge to overcome governmental decision power		◕
Information Technology	· Building of lasting customer relationships	· Networks as source of innovation	· Flexible Business model due to fast changes in the market	· New technology to enhance services · Open source solutions	· Transforming new technologies into revenue streams	· Focus on pioneering skills through human resources		· After-sales procurement as a service		◕
Financials	· Building of lasting relationships · Targeting of emerging markets	· Networks as source of innovation	· Elimination of intermediaries · high investments in start-ups	· Low-cost models	· Multifolded revenue streams	· Reduction of human resources by digital transformation		· Extension of supply-chain with international players	· Aggressive scaling activities	◕
Intensity of Component distribution	◕	◑	◑	◑	◑	◔	◑	◑	○	

1113

Source: Self-provided based on Wirtz et al. (2016)

A Systematic Analysis of how Practitioners Articulate Business Models across Disruptive Industries   *Alina Marie Herting & Alexander Lennart Schmidt*

underline that "particular attention should be given to dialogue with regulators and compliance with safety and regulatory requirements" [PM072_MA]. Therefore, innovating companies need to overcome external interfering forces and ensure for "new or improved services in which public procurement approaches for innovative solutions are successfully applied" [PM061_HC].

Within our analysis, we identified and highlighted the relevant differences in business model components across industries. Still, we additionally detected similarities in how managers communicate characteristics of the described components, thereby also agreeing with previous arguments which have stated that business models are to a certain degree shared by multiple competitors across industries (Teece, 2010).

Thus, our approach enriches the current understanding by adding an industry-specific view on the communication of single components in practice. Likewise, it gives insight on how single components potentially create opportunities or even challenges in the disruptive dynamics of practitioners.

Furthermore, our classification-scheme presented a number of assigned articles to each industry, thus demonstrating an industry-disruptiveness "spectrum of maturity" (Christensen, 2006). In detail, our analysis allows us to draw a conclusion about how frequently practitioners communicate disruptive dynamics in industries. With 255 identified secondary sources of disruptive business models within the Finance industry, for example, it is apparent that this industry is highly confronted with disruptive dynamics. The Real estate industry (17) and Materials industry (26), on the other hand, present a very limited number of articles, suggesting that disruption is attributed less importance in this market so far.

Ultimately, through analyzing secondary data in the form of press releases and company reports, our industry-specific contribution was generated from effectively applied business models, ensuring the practicability of results.

Conclusion, Limitations and Future Research

By using a deductive coding procedure, we analyzed differences in highlighted business model components as stated by practitioners across industries confronted with disruptive dynamics. We thus systematically searched for press releases and company reports in this regard that were published between 1995 and 2019.

In a twofold contribution, we first provided information about how frequently practitioners highlight and express relevant business model components across industries with disruptive dynamics. Second, we aimed to enrich the current state of research with a practical overview of opportunities and challenges of business model components communicated by managers taking an industry-specific view.

Our approach nonetheless also comes with limitations, which at the same time open new opportunities for future research. The quantitative distribution of our qualitative analysis presents a comprehensive overview of the highlighted business model components per industry by taking a 'bird's-eye view'. This approach provides guidance for scholars and practitioners to better understand the articulated differences in disruptive dynamics across industries. To extend these insights, future research should further take an in-depth view to investigate the particular business model components and their underlying structures in various disruptive contexts. Although a few results of particular components are already prevalent (for example, Hahn et al.'s 2014 study on value propositions based on 3D technologies), a more complete analysis of individual business model components would allow a consolidation of the results, ultimately contributing to a synthesis of existing research on disruptive innovation (e.g. Hopp et al., 2018).

Further, although we described the advantages of secondary data for content analysis, the included press releases and company reports potentially hold a limited degree of accuracy and sufficient detail for profound insights into the disruptive dynamics of entire industries. Prospective studies should, therefore, consider applying a detailed and longitudinal study design to shed light on the characteristics of different industries and how they change during the disruptive process.

A Systematic Analysis of how Practitioners Articulate Business Models across Disruptive Industries *Alina Marie Herting & Alexander Lennart Schmidt*

References

Amshoff, B., Dülme, C., Echterfeld, J., & Gausemeier, J. 2015. Business model patterns for disruptive technologies. *International Journal of Innovation Management*, 19(03): 1-22.
https://doi.org/10.1142/S1363919615400022

Ansari, S., Garud, R., & Kumaraswamy, A. 2016. The disruptor's dilemma: TiVo and the U.S. television ecosystem. *Strategic Management Journal*, 37(9): 1829-1853.
https://doi.org/10.1002/smj.2442

Anthony, S.D., Johnson, M.W., Sinfield, J.V., & Altman, E.J. (Eds.). 2008. The Innovator's Guide to Growth: Putting disruptive innovation to work. *Harvard Business Press*.

Baden-Fuller, C., & Morgan, M.S. 2010. Business Models as Models. *Long Range Planning*, 43(2-3): 156-171.
https://doi.org/10.1016/j.lrp.2010.02.005

Bhojraj, S., Lee, C.M.C., & Oler, D.K. 2003. What's My Line? A Comparison of Industry Classification Schemes for Capital Market Research. *Journal of Accounting Research*, 41(5): 745-774.
https://doi.org/10.1046/j.1475-679X.2003.00122.x

Bocken, N.M.P., Short, S.W., Rana, P., & Evans, S. 2014. A literature and practice review to develop sustainable business model archetypes. *Journal of Cleaner Production*, 65: 42-56.
https://doi.org/10.1016/j.jclepro.2013.11.039

Bower, J.L., & Christensen, C.M. 1995. Disruptive Technologies: Catching the Wave. *Harvard Business Review*, 73(1): 43-53.

Brown, B., & Anthony, S. 2011. How P&G Tripled Its Innovation Success Rate. *Harvard Business Review*, 89: 64-72.

Chesbrough, H., & Crowther, A.K. 2006. Beyond high tech: Early adopters of open innovation in other industries. *R&D Management*, 36(3): 229-236.
https://doi.org/10.1111/j.1467-9310.2006.00428.x

Chesbrough, H., & Rosenbloom, R.S. 2002. The role of the business model in capturing value from innovation: Evidence from Xerox Corporation's technology spin-off companies. *Industrial and Corporate Change*, 11(3): 529-555.
https://doi.org/10.1093/icc/11.3.529

Christensen, C.M. 2006. The Ongoing Process of Building a Theory of Disruption. *Journal of Product Innovation Management*, 23(1): 39-55.
https://doi.org/10.1111/j.1540-5885.2005.00180.x

Christensen, C.M., McDonald, R., Altman, E.J., & Palmer, J.E. 2018. Disruptive innovation: An intellectual history and directions for future research. *Journal of Management Studies*, 55(7): 1043-1078.
https://doi.org/10.1111/joms.12349

Christensen, C.M., & Raynor, M.E. 2003. *The Innovator's Solution: Creating and Sustaining Successful Growth* (1st edition). Harvard Business School Press.

Christensen, C.M., Raynor, M.E., & McDonald, R. 2015. What is Disruptive Innovation. *Harvard Business Review*, 93(12): 44-53.

Cohen, D., & Gans, J.S. 2017. Warding Off the Threat of Disruption. *MIT Sloan Management Review*, 58(2): 95-96.

Cozzolino, A., Verona, G., & Rothaermel, F.T. 2018. Unpacking the Disruption Process: New Technology, Business Models, and Incumbent Adaptation. *Journal of Management Studies*, 55(7): 1166-1202.
https://doi.org/10.1111/joms.12352

Dahlin, P., Fors, J., & Öberg, C. 2016. *Press releases, annual reports and newspaper articles—Using alternative data sources for studies on business network dynamics.* 21.

Dewald, J., & Bowen, F. 2010. Storm Clouds and Silver Linings: Responding to Disruptive Innovations Through Cognitive Resilience. *Entrepreneurship Theory and Practice*, 34(1): 197-218.
https://doi.org/10.1111/j.1540-6520.2009.00312.x

D'Ippolito, B., Messeni Petruzzelli, A., & Panniello, U. 2019. Archetypes of incumbents' strategic responses to digital innovation. *Journal of Intellectual Capital*, 20(5): 662-679.
https://doi.org/10.1108/JIC-04-2019-0065

Doomernik, J.-P., Lalieu, L., & Brouwer, M. (2019). *How does the Energy Sector Explore Disruptive Innovation: A Blockchain Case Study.*
https://doi.org/10.34890/568

Edler, J., & Yeow, J. 2016. Connecting demand and supply: The role of intermediation in public procurement of innovation. *Research Policy*, 45(2): 414-426.
https://doi.org/10.1016/j.respol.2015.10.010

Fielt, E. 2014. Conceptualising Business Models: Definitions, Frameworks and Classifications. *Journal of Business Models*, 1(1): 85-105.
https://doi.org/10.5278/OJS.JBM.V1I1.706

Foss, N. J., & Saebi, T. 2017. Fifteen Years of Research on Business Model Innovation: How Far Have We Come, and Where Should We Go? *Journal of Management*, 43(1): 200-227.
https://doi.org/10.1177/0149206316675927

Garbuio, M., & Lin, N. 2019. Artificial Intelligence as a Growth Engine for Health Care Startups: Emerging Business Models. *California Management Review*, 61(2): 59-83.
https://doi.org/10.1177/0008125618811931

Gassmann, O., Frankenberger, K., & Csik, M. 2014. *The Business Model Navigator: 55 models that will revolutionise your business* (1st edition). Pearson Education Limited.

Govindarajan, V., Kopalle, P.K., & Danneels, E. 2011. The Effects of Mainstream and Emerging Customer Orientations on Radical and Disruptive Innovations: Customer Orientations and Radical and Disruptive Innovations. *Journal of Product Innovation*

A Systematic Analysis of how Practitioners Articulate Business Models across Disruptive Industries   *Alina Marie Herting & Alexander Lennart Schmidt*

Management, 28(s1): 121-132.
https://doi.org/10.1111/j.1540-5885.2011.00865.x

Habtay, S.R. 2012. A Firm-Level Analysis on the Relative Difference between Technology-Driven and Market-Driven Disruptive Business Model Innovations. *Creativity and Innovation Management*, 21(3): 290-303.
https://doi.org/10.1111/j.1467-8691.2012.00628.x

Hahn, F., Jensen, S., & Tanev, S. 2014. Disruptive Innovation vs Disruptive Technology: The Disruptive Potential of the Value Propositions of 3D Printing Technology Startups. *Technology Innovation Management Review*, 10.
http://dx.doi.org/10.1111/j.1540-5885.2008.00306.x

Heikkilä, M., Saarni, J., Kaartemo, V., & Koponen, A. 2015. Viability Radar: A Practical Tool for Assessing the Viability of Transformative Service Innovations in a Healthcare Context. *Technology Innovation Management Review*, 5: 17-30.
https://doi.org/10.22215/timreview/895

Hopp, C., Antons, D., Kaminski, J., & Salge, T.O. 2018. Disruptive Innovation: Conceptual Foundations, Empirical Evidence, and Research Opportunities in the Digital Age: DISRUPTIVE INNOVATION. *Journal of Product Innovation Management*, 35(3): 446-457.
https://doi.org/10.1111/jpim.12448

Hynes, N., & Elwell, A.D. 2016. The role of inter-organizational networks in enabling or delaying disruptive innovation: A case study of mVoIP. *Journal of Business & Industrial Marketing*, 31(6): 722-731.
https://doi.org/10.1108/JBIM-10-2012-0168

Johnson, M. W., Christensen, C. M., & Kagermann, H. 2008. Reinventing Your Business Model. *Harvard Business Review*, 87(12): 52-60.

Kaltenecker, N., Hess, T., & Huesig, S. 2015. Managing potentially disruptive innovations in software companies: Transforming from On-premises to the On-demand. *The Journal of Strategic Information Systems*, 24(4): 234-250.
https://doi.org/10.1016/j.jsis.2015.08.006

Koen, P.A., Bertels, H.M.J., & Elsum, I.R. 2011. The Three Faces of Business Model Innovation: Challenges for Established Firms. *Research-Technology Management*, 54(3): 52-59.
https://doi.org/10.5437/08953608X5403009

Krippendorff, K. 2004. Reliability in Content Analysis.: Some Common Misconceptions and Recommendations. *Human Communication Research*, 30(3): 411-433.
https://doi.org/10.1111/j.1468-2958.2004.tb00738.x

Kumaraswamy, A., Garud, R., & Ansari, S. 2018. Perspectives on Disruptive Innovations. *Journal of Management Studies*, 55(7): 1025-1042.
https://doi.org/10.1111/joms.12399

Laurell, C., & Sandström, C. 2016. Analysing Uber in Social Media: Disruptive Technology or Institutional Disruption? *International Journal of Innovation Management*, 20(05), 1640013.

https://doi.org/10.1142/S1363919616400132

Lincoln, Y.S., & Guba, E.G. 1985. *Naturalistic inquiry.* Sage Publications.

Lincoln, Y.S., & Guba, E.G. 1990. Judging the quality of case study reports. *International Journal of Qualitative Studies in Education*, 3(1): 53-59.
https://doi.org/10.1080/0951839900030105

Mahama, A. 2012. 2012 international year for sustainable energy for all: African Frontrunnership in rural electrification. *Energy Policy*, 48: 76-82.
https://doi.org/10.1016/j.enpol.2012.04.046

Markides, C. 2006. Disruptive Innovation: In Need of Better Theory. *Journal of Product Innovation Management*, 23(1): 19-25.
https://doi.org/10.1111/j.1540-5885.2005.00177.x

Markides, C., & Charitou, C.D. 2004). Competing with dual business models: A contingency approach. *Academy of Management Perspectives*, 18(3): 22-36.
https://doi.org/10.5465/ame.2004.14776164

Markides, C., & Oyon, D. 2010. What to Do Against Disruptive Business Models (When and How to Play Two Games at Once). *MIT Sloan Management Review*, 51(4): 25-32.

Neale, J. 2016. iterative categorisation (IC): A systematic technique for analysing qualitative data: systematic technique for analysing qualitative data.
https://doi.org/10.1111/add.13314

Nellippallil, A.B., Ming, Z., Allen, J.K., & Mistree, F. 2019. Cloud-Based Materials and Product Realization– Fostering ICME Via Industry 4.0. *Integrating Materials and Manufacturing Innovation*, 8(2): 107-121.
https://doi.org/10.1007/s40192-019-00139-2

Osiyevskyy, O., & Dewald, J. 2015. Explorative Versus Exploitative Business Model Change: The Cognitive Antecedents of Firm-Level Responses to Disruptive Innovation. *Strategic Entrepreneurship Journal*, 9(1): 58-78.
https://doi.org/10.1002/sej.1192

Osiyevskyy, O., & Dewald, J. 2018. The pressure cooker: When crisis stimulates explorative business model change intentions. *Long Range Planning*, 51(4): 540-560.
https://doi.org/10.1016/j.lrp.2017.09.003

Osterwalder, A., Pigneur, Y., & Clark, T. 2010. *Business Model Generation: A handbook for visionaries, game changers, and challengers* (1st edition). Wiley.

Perkmann, M., & Spicer, A. 2010. What are business models? Developing a theory of performative representations. In N. Phillips, G. Sewell, & D. Griffiths (Eds.), *Research in the Sociology of Organizations*, Emerald Publishing Limited, Vol. 29: 265-275.
https://doi.org/10.1108/S0733-558X(2010)0000029020

Petzold, N., Landinez, L., & Baaken, T. 2019. Disruptive innovation from a process view: A systematic literature review. *Creativity and Innovation Management*, 28(2): 157-174.

A Systematic Analysis of how Practitioners Articulate Business Models across Disruptive Industries   *Alina Marie Herting & Alexander Lennart Schmidt*

https://doi.org/10.1111/caim.12313

Rajala, R., Hakanen, E., Mattila, J., Seppälä, T., & Westerlund, M. 2018. How Do Intelligent Goods Shape Closed-Loop Systems? *California Management Review*, 60(3): 20-44.
https://doi.org/10.1177/0008125618759685

Reficco, E., & Gutiérrez, R. 2016. Organizational Ambidexterity and the Elusive Quest for Successful Implementation of BoP Ventures. *Organization & Environment*, 29(4): 461-485.
https://doi.org/10.1177/1086026616643136

Ritter, T., & Lettl, C. 2018. The wider implications of business-model research. *Long Range Planning*, 51(1): 1-8.
https://doi.org/10.1016/j.lrp.2017.07.005

Schiavi, G.S., & Behr, A. 2018. Emerging technologies and new business models: A review on disruptive business models. *Innovation & Management Review*, 15(4): 338-355.
https://doi.org/10.1108/INMR-03-2018-0013

Schneider, S., & Spieth, P. 2013. Business model innovation: Towards an integrated future research agenda. *International Journal of Innovation Management*, 17(1), 1340001.
https://doi.org/10.1142/S136391961340001X

Si, S., & Chen, H. 2020. A literature review of disruptive innovation: What it is, how it works and where it goes. *Journal of Engineering and Technology Management*, 56, 101568.
https://doi.org/10.1016/j.jengtecman.2020.101568

Sousa, M.J., & Rocha, Á. 2019. Skills for disruptive digital business. *Journal of Business Research*, 94: 257-263.
https://doi.org/10.1016/j.jbusres.2017.12.051

Tayal, D. 2016. Disruptive forces on the electricity industry: A changing landscape for utilities. *The Electricity Journal*, 29(7): 13-17.
https://doi.org/10.1016/j.tej.2016.08.004

Teece, D.J. 2010. Business Models, Business Strategy and Innovation. *Long Range Planning*, 43(2–3): 172-194.
https://doi.org/10.1016/j.lrp.2009.07.003

Teece, D.J. 2018. Business models and dynamic capabilities. *Long Range Planning*, 51(1): 40-49.
https://doi.org/10.1016/j.lrp.2017.06.007

Trabucchi, D., Talenti, L., & Buganza, T. 2019. How do Big Bang Disruptors look like? A Business Model perspective. *Technological Forecasting and Social Change*, 141(4): 330-340.
https://doi.org/10.1016/j.techfore.2019.01.009

Winterhalter, S., Zeschky, M.B., Neumann, L., & Gassmann, O. 2017. Business Models for Frugal Innovation in Emerging Markets: The Case of the Medical Device and Laboratory Equipment Industry. *Technovation*, 66-67: 3-13.
https://doi.org/10.1016/j.technovation.2017.07.002

Wirtz, B.W., Pistoia, A., Ullrich, S., & Göttel, V. 2016. Business Models: Origin, Development and Future Research Perspectives. *Long Range Planning*, 49(1): 36-54.
https://doi.org/10.1016/j.lrp.2015.04.001

Woo, H., & Grandy, J. 2019. Nikola motors: A case study in bundling as a market entry strategy. *Journal of Business Strategy*.
https://doi.org/10.1108/JBS-07-2019-0145

Zhang, W., Daim, T., & Zhang, Q. 2018. Understanding the disruptive business model innovation of E-business microcredit: A comparative case study in China. *Technology Analysis & Strategic Management*, 30(7): 765-777.
https://doi.org/10.1080/09537325.2017.1376047

Zott, C., & Amit, R. 2010. Business Model Design: An Activity System Perspective. *Long Range Planning*, 43(2–3): 216-226.
https://doi.org/10.1016/j.lrp.2009.07.004

Zott, C., Amit, R., & Massa, L. 2011. The Business Model: Recent Developments and Future Research. *Journal of Management*, 37(4): 1019-1042.
https://doi.org/10.1177/0149206311406265

About the Authors

Alina Marie Herting is a master student of Business Administration at the University of Münster (WWU Münster) with a study focus in Marketing and Management and a research associate at the Science-to-Business Marketing Research Centre (S2BMRC) at the Münster University of Applied Science with a focus on disruptive innovation and business model innovation.

Alexander Lennart Schmidt is a research associate at the Science-to-Business Marketing Research Centre (S2BMRC), a lecturer for Marketing and Innovation management at the Münster School of Business at Münster University of Applied Sciences, and a PhD candidate in a cooperative PhD program at the Vrije Universiteit (VU) Amsterdam and Münster University of Applied Sciences. He is doing his PhD on the topic of innovation management while focusing on disruptive innovation and business model innovation.