BUSINESS MODEL INNOVATION: A SYSTEMATIC LITERATURE REVIEW

Sascha Kraus
Durham University, Durham University Business School
Mill Hill Lane, Durham, DH1 3LB, United Kingdom

Matthias Filser
ZHAW Zürich University of Applied Sciences, School of Management and Law,
Gertrudstrasse 15, CH-8401 Winterthur, Switzerland & LUT University, Yliopistonkatu 34,
53850 Lappeenranta, Finland

Norbert Kailer & Selina Thurner
Johannes Kepler University Linz, Institute of Entrepreneurship and Organisation
Development, Altenberger Strasse 69, A-4040 Linz, Austria

Kaisu Puumalainen
LUT University, Lappeenranta, Finland
LUT University, Yliopistonkatu 34, 53850 Lappeenranta, Finland

Abstract

Researching business models and in specific business model innovation recently receives growing attention by academics and practitioners due to increasing global competition and the constant need for adjustment to changing environments among others. Therefore, the main objective of our study is to provide an overview of the state-of-the-art of research on business model innovation by conducting a systematic literature review. Our review provides a deeper understanding and breakdown of key components of BMI. Likewise, our study identifies organizational, environmental, and societal factors influencing BMI and proposes avenues for future research.

1. Introduction

Technology and business ideas only have economic value when they are commercialized through the *business model* (BM) of a company. In that regard, technology itself does not have a measurable economic value. The way a company implements a new technology or innovation successfully, is greatly relative to the firm's BM. Moreover, innovations can be commercialized in various way, meaning the identical innovation commercialized in different ways will likely yield two different outcomes. Consequently, BMs are essential for companies and need continuous improvements and adjustments (Chesbrough, 2010).

Business model innovation (BMI) is considered as on of the main research streams within innovation research and describes how innovations are executed. In terms of practical applicability BMI can lead

to new ways of value creation as a reaction to changes in the environment (Schneider, 2013). The quantity of scholarly literature on this topic has increased rapidly in the past years. However, scholars consider the existing literature on BMs as rather ambiguous and highlight the lack of a definition that allows to deepen research in a consistent manner. That is important as research in BMI occurs in different fields such as innovation management, strategic management, and entrepreneurship.

Therefore, the present study conducts a systematic literature review (SLR) analyzing 40 selected articles published in highly ranked journals in order to provide a deeper understanding on BMI. In addition, our study aspires to reveal the state-of-the-art of the research and provides avenues for future research.

2. Theoretical Background

2.1. Business Models

The concept of BMs is sector-independent and can be applied to different types of businesses (Hock-Doepgen et al. 2020). In today's reality due to globalization and faster changing and competitive environmental conditions, firms are forced to explore new BM potentials to remain profitable or increase profitability (Burkhart, 2011). Accordingly, BMs are facilitators and provide a framework for companies to create and capture value (Clauss et al. 2020). This value however evolves from the novelty, uniqueness and effectiveness of the BM. However, BMs do not represent a single objective value. Novel BMs rather develop from commercialization possibilities, which are realized by a unique setup (Schneider, 2013). The BM itself does practice two crucial functions: value creation and value capture. The value creation happens at the starting point of matching a customer need with a newly arranged and efficiently setup of resources. The created value is captured from the efficient execution. Therefore, "a better BM often will beat a better idea or technology" (Chesbrough, 2007, p. 12).

A BM contains several characteristics. First, it articulates the value proposition which deals with the communication of the value that is created for the consumers by offering a certain product or service. Second, a BM detects a market segment, which is represented by the identification of the consumers who can profit from the BM. Third, it creates and spreads the offering of the company in the sense of forming the structure of the value chain of the firm. Fourth, it recognizes the revenue resulted by the offering, which refers to the cost structure, as well as the profit potential of the new product or service. Fifth, a BM investigates in the right relationship between suppliers and customers, but also searches for potential competitors. And lastly sixth, it frames a competitive strategy, in terms of achieving and searching for competitive advantage (Chesbrough, 2010). Table 1 illustrates various definitions of BM that are cumulated from the literature.

Table 1: List of definitions of a business model
(Source: Own elaboration)

Author	Definition
Timmers (1998, p. 4)	*"… is an architecture for the product, service and information flows, including a description of the various business actors and their roles; is a description of the potential benefits for the various business actors; is a description of the sources of revenue"*
Amit & Zott (2001, p.511)	*"… depicts the content, structure and governance of transactions designed so as to create value through the exploitation of business opportunities"*
Morris et al. (2005, p. 727)	*"… is a concise representation of how an interrelated set of decision variables in the areas of venture strategy, architecture and economics are addressed to create sustainable competitive advantage in defined markets"*
Casadesus.Masanell & Ricart (2010, p. 195)	*"… is a reflection of the firm's realized strategy"*
Teece (2010, p. 179)	*"…articulates the logic, the data and other evidence that support a value proposition for the customer, and a viable structure of revenues and costs for the enterprise delivering that value"*
Zott & Amit (2010, p. 216)	*"… is a system of interdependent activities that transcend the focal firm and spans its boundaries"*

Moreover, a BM is not only connected with innovation, new ideas and value creation, but also with the firms' strategies. In that regard, BMs show a different strategy for solving problems and creating value (Casadesus-Masanell, 2010). A BM is not the same as a strategy even though some scholars do not draw a clear-cut course between the definition of a BM and the characterizations of a strategy (Magretta, 2002). In nowadays environment, ideas are fast changing and can be quite complex with a high portion of risk. Thus, strategies communicate these changes and risks of a company and form an individual BM for the firm. In addition, to be able to evolve an efficient strategy it is essential to consider the uncertainty of the idea. It is crucial to be able to experiment and try different ways when it comes to the implementation of a BM to reach the firms' aims. It is important that managers of a business recognize the potential for improvements (McGrath, 2010). However, a BM is distinctive to a strategy and under certain circumstances these two terms have to be assessed independently. For instance, some firms cannot comprehend how the competition operates on the market. For that reason, before the firm is able to evolve a BM, they have to develop a strategy firstly. Moreover, BMs often do not consider the real competition when they are developed. BMs describe the different divisions of a firm and how these divisions fit with each other. However, BMs are often not able to see these divisions in a critical way.

For that reason, it could be difficult to make improvements. Implementing a sufficient strategy can solve this lack in critical thinking. This strategy can help to gain competitive advantage on the market. When a BM is based on theoretical thinking, the strategy makes the model real and is associated with managing the reality of the firm and its issues and aims (Magretta, 2002). It can be said that the strategy of the firm tightly depends on its BM and vice versa. Thus, the BM of a firm can be seen as the reflection of the firms' strategy (Casadesus-Masanell, 2010).

2.2. Business Model Innovation

In connection with the rise of new technologies and new product invention, BMs had to be improved and converted to a more focused model, considering innovation in its actions. For this purpose, the term BMI was developed (for an overview of different definitions, see table 2). The implementation of a BMI is crucial when a company wants to generate long-term sustainable competitive advantage, but also wants to explore new ways to organize their business. Besides, a BM is able to balance costs and revenues to generate a sustainable outcome (Behera, 2017). In case a BMI is implemented successfully it will allow the companies to adjust to changes on the market or to even survive on the market. Nowadays, the market is quite dynamic and competitive, which makes it more difficult for companies to resist on the market with its products and strategies. A BMI may involve a modification of an existing or an implementation of a totally new BM. However, its objective is to create value for its stakeholders (Wirtz, 2018). Based on the fast-changing environment, some factors have to be analyzed when implementing a successful BMI. These factors are the behavior of the competitors of the firm, the outsourcing of activities which do not directly affect the success of a firm, as well as the development of capabilities for risk taking. Especially, risk taking is quite important when a company wants to evolve on a global market efficiently. These factors influence the decisions of a firm when it comes to the invention of new ideas or to the rearrangement of old ideas. The main goal of BMI is the value creation. Moreover, innovation is always a driver for value creation. The value creation is generated through the implementation of a successful BMI. More companies use different BMIs to generate different outcomes and values for stakeholders (Behera, 2017).

Table 2: List of definitions of BMI
(Source: Own elaboration)

Author	Definition
Bucher et al. (2012, p. 183)	*"… is a different type of innovation that is distinct from product and process management"*
Amit & Zott (2010, p.2)	*"… is a process of designing a new, or modifying the firm's extant activity system"*

Markides (2006, p. 20)	*"… is the discovery of a fundamentally different business model in an existing business"*
Wirtz et al. (2016, p. 3)	*"… describes the design process for giving birth to a fairly new business model on the market, which is accompanied by an adjustment of the value proposition and/or the value constellation and aims at generating or securing a sustainable competitive advantage"*
Björkdahl & Holmén (2013, p. 214)	*"… is the implementation of a business model that is new to the firm"*
Casadesus-Masanell & Zhu (2010; p. 464)	*"…refers to the search for new logics of the firm and new ways to create and capture value for its stakeholders; it focuses primarily on finding new ways to generate revenues and define value propositions for customers, suppliers, and partners"*
Clauss (2016, p. 387)	*"…considers the business model instead of products or processes as the subject of innovation"*

3. State-of-the-art review of current literature on the field

The most important literature on the topic BMI was gained within a SLR (see e.g., Kraus, 2020). Moreover, on the basis of the results of the SLR, a so-called map of knowledge evolves, which should contain all relevant literature and give a significant impression in the current state of research on this topic. This map of knowledge is able to show growing research trends as well as knowledge gaps in the research field. This type of SLR was carried out by various authors in the past and received its popularity in recent research methodology as it ranks the literature according to its quality (Bouncken et al. 2015). In that case, the systematic literature should provide an insight in the current research on the topic BMI. This qualitative research approach was already used by various authors before (e.g., Calabro, 2019; Demir et al. 2020; Kraus et al. 2020).

3.1. Data and Method

The literature review is based on a systematic research in the database *Web of Science* (WoS). Along with the search string "business" AND "model" AND "innovation", also some further limitations were set such as: only articles, articles in English language and articles which have "Business Model Innovation" in its title should be searched for. This resulted in a number of 287 articles. For the descriptive analysis, the years of publication were focused on. In that regard, the publications per year were examined carefully.

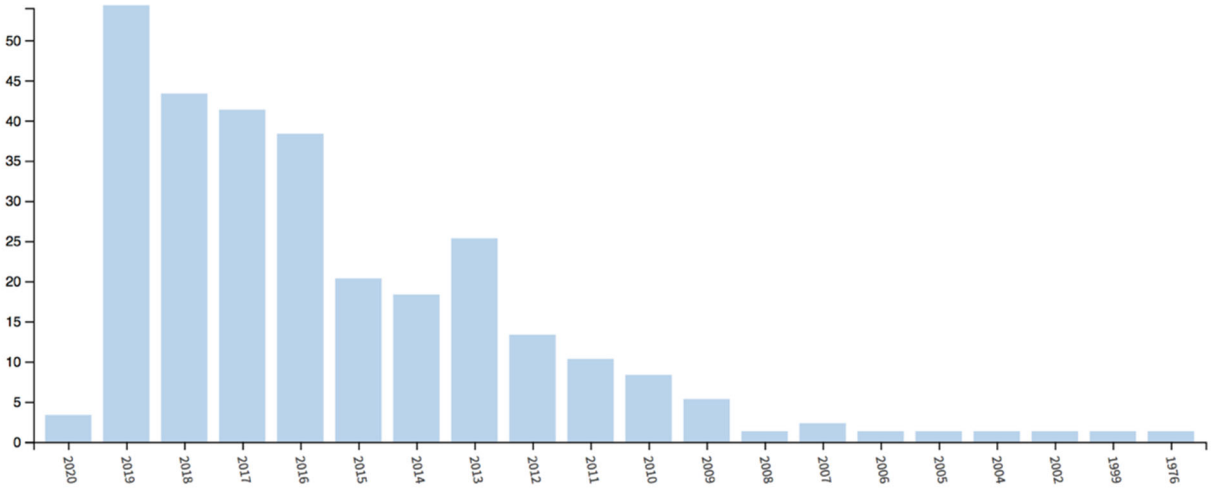

Figure 1: Publications per year

Figure 1 illustrates that the starting years of articles which cover the topic BMI are 2009 and 2010. Before, only few articles refer to this field of study. In these years, the topic evolved over time and received its most popularity recently when it reached its peak in 2019. For the next steps of the analysis, further indications were carried out according to the citations per year. In that regard, it can be seen in Figure 2 that most of the citations happened since 2016. For that reason, the focus for the SLR were set on articles published between 2016 and 2019, as the literature review should provide the *current* state of research on this topic sorted according to their quality. This resulted in a total number of 179 articles.

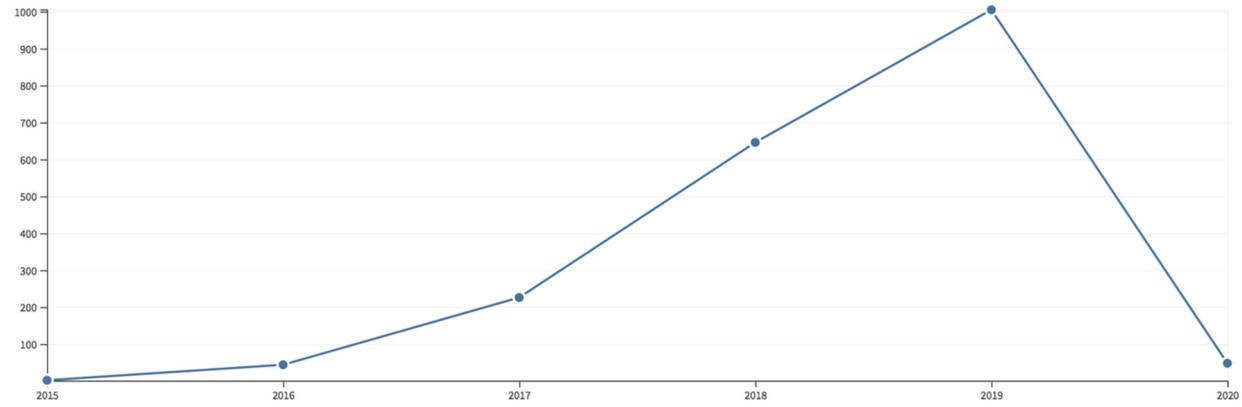

Figure 2: Citations per year of publications containing the search string in their title
(Source: Compiled by the author based on WoS)

This number was still too high to result in a qualitatively sufficient outcome for this analysis. For that reason, this number was reduced by the restriction that only journals, which have a *VHB Jourqual 3* rating of at least "B", were considered. It the end, 40 articles, which are illustrated in Table 3, emerged in that analysis.

Table 3: Most influential journals publishing business model innovation research
(Source: Own elaboration based on WoS)

Business Model Innovation				
R	Name	TP	TC	VHB J
1	Journal of Cleaner Production	20	335	B
2	Business Strategy and the Environment	3	187	B
3	Journal of Product Innovation Management	2	92	A
4	R&D Management	6	88	B
5	Long Range Planning	6	88	B
6	Industry and Innovation	3	23	B

Abbreviation: R, rank; TP, total publications; TC, total cited; VHB J, VHB Jourqual3 rating; note that for this analysis only articles published in academic journals were considered focusing on document type article, on language English, and articles published from 2016 to 2019; note that the ranking is developed according to the number of publications of a paper on the topic "business and innovation and model" in its title received.

3.2. Results

The research on BMI is undertaken through different approaches by various authors. The following four notions were attributed to four main clusters resulted from the SLR: 1) the role of environmental factors in BMI, 2) the connection of products and services with BMI, 3) the role of organizational aspects in BMI, and 4) the implication of social perspectives in BMI. The first cluster is subdivided into the following two sections: sustainable BMI and new technology. An overview of the top 40 publications resulted from the systematic literature analysis assigned to four appropriate clusters is provided in Table 4.

Table 4: The top 40 publications assigned to four clusters
(Source: Own elaboration)

Cluster	Citations	Authors/Year
1: The Role of Environmental Factors in BMI		
1a): Sustainable BMI	80	Evans et al. (2017)
	57	Yang et al. (2017)
	53	Franca et al. (2017)
	43	Baldasarre et al. (2017)
	12	Inigo et al. (2017)
	7	Oskam et al. (2018)
	4	Wadin et al. (2017)
	0	Lüdeke-Freund (2018)
1b): New Technology	17	Karlsson et al. (2016)
	16	Prendeville et al. (2017)
	12	Van Waes et al. (2018)
	10	Wells (2018)
	6	Zhao et al. (2018a)
	6	Karlsson et al. (2017)
	4	Ciulli & Kolk (2019)
	1	Wells & Nieuwenhuis (2018)

	0	Zhao et al. (2018b)
2: The Connection of Products and Services with BMI	107	Linder & Williander (2016)
	81	Visnjic et al. (2016)
	31	Rosca & Bendul (2016)
	22	Rantala et al. (2017)
	4	Naor et al. (2017)
	3	Calabrese et al. (2018)
3: The Role of Organizational Aspects in BMI	44	Clauss (2016)
	33	Foss & Saebi (2017)
	26	Karimi & Walter (2015)
	15	Guo et al. (2016)
	13	Futterer et al. (2018)
	13	Hacklin et al. (2018)
	12	Spieth et al. (2016)
	11	Sorescu (2017)
	9	Schneckenberg et al. (2016)
	8	Laudien & Daxboeck (2016)
	7	Gebauer et al. (2017)
	3	Snihur & Wiklund (2019)
	0	Schneider (2017)
	0	Von Delft et al. (2019)
4: The Implication of Social Perspectives in BMI	33	Dentchev et al. (2016)
	6	Oloffsson et al. (2017)
	4	Mongelli & Rullani (2017)

3.3.1. Cluster 1: The Role of Environmental Factors in Business Model Innovation

The role of environmental factors in connection with BMI is discussed in the recent academic literature for several times and under different streams. Especially sustainable BMI received its most attention and is applicable to various research fields. Due to the increasing in the population and the unsustainable behavior of businesses, the need for a sustainability-oriented BMI became crucial (Baldassarre, 2017). Moreover, new technologies offer new possibilities for firms to engage with their BMs. In that regard, this cluster section was further divided in cluster 1a) sustainable BMI and cluster 1b) new technology.

3.3.1.1. Cluster 1a): Sustainable Business Model Innovation

Cluster 1a) places an emphasis on the recent importance of sustainability in business actions. Inigo et al. (2017) state that stakeholders expect sustainability from businesses. When a business wants to be successful in the long-term, it is essential to consider environmental and social aspects in their organizational activities. In various publications, these two aspects are considered to be connected with each other and also have a huge impact on the organization's BMI. The concept of BMI is a crucial factor for sustainability. Yang et al. (2017) mention that BMI is less about finding new products or

services, it is rather about searching for new ways to create and supply the existing products or services of a firm.

Moreover, Evans et al. (2017) and Baldassarre et al. (20117) indicate that BMI refers to how a firm captures value, rather than what they do for capturing value. Whereas, a BM gives details of creating value for the firm's stakeholders including end users, suppliers, shareholder, government and partner, the sustainable BM also includes the creation of value for the environment and the society. Thus, sustainable BMs consider environmental and social benefits when they capture value. Oskam et al. (2018) emphasize that a sustainable BM consists of: value proposition (offering of ecological as well as social value), value creation and delivery (how the ecological or social value is created and delivered to the stakeholders of the organization), and value capture (captured capital which is identified as ecological, social, and economic value and do not refer to organizational activities).

Franca et al. (2017) also investigate in value proposition. In that matter, the authors emphasize that a value proposition is accordant to an offering of a bundle of products and services. This bundle creates value for a particular customer group. Value for customers can include: newness, new processes, price changes, or brand image. Besides, Lüdeke-Freund (2018) provides an integrative framework that underlines this statement by revealing: sustainability innovation motivates BM which then creates business cases for sustainability. According to Wadin et al. (2017), BMs can overcome sustainable barriers by introducing: service-based BMs, product-service systems, or servitization.

Yang et al. (2017) emphasize that most of the studies of BMs are about value proposition, value capture, and value creation. However, there is less attention on the topic of sustainability in connection with BMs. For that reason, Yang et al. (2017) conducted a research on value uncaptured for sustainable BMI. In that regard, the authors evolved four forms of value uncaptured. These four forms are: value surplus, value absence, value missed, and value destroyed. First, value surplus refers to a value which is not really needed or necessary for the existence of a firm. Moreover, it is a value which is delivered to stakeholders even though the firm does not need to deliver it. For instance, waste of energy or overproduction. Second, value absence is a value that is needed but cannot be provided by the firm as it does not exist. By way of example, a lack of resources or the need of a recycling service for the firm's products. Third, value missed refers to a value that is not fully exhausted. For example, underutilized assets and resources which could achieve a higher value but do not in the end. And fourth, value destroyed which is a value that has negative effects and a bad outcome for the firm and its stakeholders. It is a quite inefficient BM which might even causes damages to the planet earth, its habitants and its environment. Whereas Yang et al. (2017) focus on the capture or more likely on the uncaptured value of sustainable BMI, Evans et al. (2017) evolved three different forms of the actual sustainable value and named them as follows: environmental value forms, social value forms, and economic value forms. Environmental value forms refer to renewable resources, low emissions, and low waste. Social value forms are about equality and diversity, but also well-being of the society and livelihood. Economic value forms relate to profit, return on investments, and business stability.

Baldassarre et al. (2017) not only mention the need of a sustainable BMI, but also the necessity of user-driven innovation due to the increasing of population and the unsustainable behavior of businesses. The outcome of combining these two concepts should cause a successful and user-centered sustainable value proposition. Additionally, user-driven innovation relates to business opportunities and the deployment of new concepts. Along with user-driven innovation, also design thinking received its attention when it comes to business innovation. In that sense, design thinking is a user-centered innovation approach which passes through three steps including: inspiration, ideation, and implementation. Design thinking is able to find problems and evolve solutions to them. The authors further show that the combination of these two approaches is the key for sustainable value proposition as it unifies economic and environmental objectives. In general, Oskam et al. (2018) emphasize that the combination of ecological, social, and economic aspects challenged many scholars before.

3.3.1.2. Cluster 1b): New Technology

New technology has been explored by several researches under various aspects. For instance, Karlsson et al. (2017) underline the importance of BM or specifically BMI when it comes to renewable energy. Van Waes et al. (2018) also indicate energy technologies as opportunity for new ownership values, value chains, or customer relationships. Thus, Karlsson et al. (2017) reveal that BMI can be a necessary tool in the energy industry as it provides an environmental and social focus rather than a focus on traditional and resource-intensive assets. Van Waes et al. (2018) underline that digitally enabled sharing economy platforms could be seen as new technology as well. Additionally, these sharing economy platforms can make privately owned assets available for rental services which then need a new innovative BM as well. Ciulli & Kolk (2019) also emphasize that sharing economy can lead to changes of the environmental, social, and economic value creation of the BM of a firm. Thus, sharing economy not only reveals replacements of ownerships, but also opportunities for greater value creation for existing customers or the acquisition of new customers. Sharing economy could evolve efficiency in order to provide equal access to goods and services and new variable employments.

Karlsson et al. (2017) state that BMI is the key for long-term profitability and sustainable development of firms and society. In that regard, Karlsson et al. (2018) developed a conceptual 4l-framework which consists of four phases. First, the initiation phase that involve the discovery of the need of an innovation. Second, the ideation phase that searches for solutions and possibilities. Third, the integration phase that elaborates and develops these solutions. And fourth, the implementation phase that considers marketing in its process for promoting these solutions. Moreover, Karlsson et al. (2018) indicate the dependence of sustainability aspects in these phases and called it BMI process for sustainability.

Conversely, Wells (2018) enhances that the world is in transition right now and there has to happen changes regarding resource waste and environmental damages in general. The human activity has a great

impact on the earth´s ecological, meteorological, and geological systems. In that connection, innovations have to be in accordance with these environmental challenges and social resource constraints. New technologies which are sustainable could be a novel way to generate novel settings and emerge novel solutions to indicate environmentally friendly products and services. Wells (2018) mentions grassroots energy innovations as an example for new technology under a sustainable setting. Thus, Wells (2018) highlights that a non-traditional BM is crucial to yield a new technology innovation with low environmental impact. Wells & Nieuwenhuis (2018) also bring up that technology can not only be seen as a potential for new BMs, but also as a main subject to develop new innovations. Zhao et al. (2018a) and Zhao et al. (2018b) both investigate in low or zero carbon buildings and BMI. Moreover, zero carbon building is known for its innovativeness and effectiveness when it comes to the reduction of energy consumption and carbon emissions. As a result, BMs can include the following components as a favor for successful sustainable BMIs: product-service systems, closed loop systems, and open innovation platforms along with energy performance contracting. To conclude the section about new technology, the authors Prendeville et al. (2017) indicate an eco-design dilemma a firm has when it tries to evolve sustainable technologies in their businesses. The eco-design is not only collaborative, but also systematic and includes a management process for environmentally friendly behavior and actions of a firm. Moreover, the eco-design considers the environmental impacts of packaging, products, processes and services undertaken by the firm. The solution for this dilemma is the right choice of BMI which is conducted by the firm.

3.3.2. Cluster 2: The Connection of Products and Services with Business Model Innovation

When it comes to products and services in connection with BMI, some authors recognize several gaps in this research field. Visnjic et al. (2016) shed light on the research on the interplay between service BMI and product innovation. In that regard, the authors evolved an examination of two service BMs: the product-oriented model and the customer-oriented model. Service BMI is the result of a servitization strategy. Thus, the servitization strategy includes the offering of additional services combined with the products a firm already offers. In that case, the firm is able to shift its focus from a product-oriented to a service-oriented BM and generate higher competitiveness on the market. Additionally, to the cluster above, technological change is one of the key factors which causes to rethink the firm's BMs and strategies. Along with the high portion of new technology on the market, it is progressively more difficult to remain its power to compete as a firm. As a result, the firm has to cease existing values and has to generate new superior values. The path of a servitization of a firm starts with a BM which focuses on products only. Then the firm continues by providing product-related services such as repairs or maintenance. At that stage, the BM transfers to a product-oriented BM. Once the firm introduces use-oriented and results-oriented services, the BM shifts to a customer-oriented BM. Naor et al. (2018) indicate that sustainable business are more likely to shift its offerings from traditional products-only BM to a combination of products and service BM as they prefer functionality rather than ownership. To

conclude, Visnjic et al. (2016) come to the result that the synergy of service BMI and product innovation lead to profits in the short run but in the long-term they generate knowledge losses. In case a firm wants to generate a superior value, they have to be able to overcome the long-term market performance decrease by focusing on the short-term benefits generated.

Supplementary to the cluster that covers environmental aspects in interplay with BMI, Rantala et al. (2018) investigate in the research field of BMI and its connection with sustainable opportunities. Technologies and services in connection with BMI are a crucial field of study in the scientific literature. In specific, the service sector becomes increasingly more important in terms of economic growth. Moreover, service innovations are a key resource for sustainable development of organizations and societies. Thus, service innovations are quite adjustable to different types of industries. Manufacturing firms, but also service-focused companies are able to implement service innovations and create value. Traditional service innovations are connected with product and process innovations, whereas recent service innovations also focus on new BMs as customer's interests are changing. Along with Visnjic et al. (2016), also Rantala et al. (2018) indicate that the main objective of service innovations lays on the profit provision to the organization in the short run. In that regard, Calabrese et al. (2018) introduce a tool, namely sustainability-oriented service innovation (SOSI), to discover the main components of a BM in terms of sustainability-oriented service innovations and how a manager can change these components included. When a firm uses such tool, it is able to attract new customers, enter new markets and rise its competitiveness. Thus, within the tool SOSI, the firm is able to engage in new technological, organizational, and social innovations which can be implemented in its BM.

Rosca et al. (2017) explore sustainable innovation in connection with frugal products and services. In that regard, the results of their analysis include that frugal innovations are able to reintegrate value chains, reengineer products and services, and reconfigure resources. Moreover, frugal innovations offer a wide range of products and services. However, the authors also indicate that BMs with limited products and services show higher value for lower costs and prices. This can be an advantage in terms of reaching a higher number of base-of-the-pyramid customers. Linder and Williander (2017) deal with circular BM. This kind of BMs focus on cost saving and reduction due to environmental changes. Moreover, the authors take a look on Xerox as a pioneer of product-service offering. Xerox investigated in photocopiers and their remanufacturing.

3.3.3. Cluster 3: The Role of Organizational Aspects in Business Model Innovation

The role of organizational aspects in connection with BMI was considered by several authors. Clauss (2016) examines a broad literature review of theories and concepts of BMs and BMIs. In that regard, the author evolves three main dimensions and ten subconstructs of the concept of BMI. Moreover, he provides a conceptual serenity for a better understanding of BMI along with the answer of how a BMI should be interpreted. The three dimensions of BMI are: value creation innovation, new proposition

innovation, and value capture innovation. Value creation innovation consists of four subconstructs namely new capabilities, new technology/equipment, new partnerships, and new processes. Whereas the dimension value capture innovation only has two subconstructs (new revenue models and value cost structures), the dimension value proposition innovation has four. These four are the following: new offerings, new customers and markets, new channels, and new customers relationships. Besides, Gebauer et al. (2017) introduce different types of innovation in connection with base-of-the-pyramid markets. The authors define the following types of BMIs: BM design, renewal, expansion, diversification, and replication. Thus, the base-of-the-pyramid market refers to the four billion people living close to the poverty line. It is a business strategy with its aim to serve these people. However, there are some barriers a firm has to face when it enters that market. The barriers are dependent on the choice of the firm and its type of innovation along with its selection regarding the overall logic, configuration, and the components of its BM.

Spieth et al. (2016) explore the relationship between BM, BMI, and the strategy of a firm. In that connection, the authors indicate that the strategy of a firm leads to value creation and value assignment. More generally, the relationship between strategy and the BM of a firm can go hand in hand in case different firms offer similar products but with different BMs. In that regard, both firms can attract the same customer group with the same product but also with the same success. Whereas Spieth et al. (2016) survey the interaction between strategy and BMI, Foss & Saebi (2018) focus on the problems which may arise when implementing a new BM or BMI. In that case, strategy is an important factor influencing whether a firm has an efficient BM or not. A strategy includes the defining of objectives and goals, the decision on what products and services to offer, and the design of the perception of the firm generally. Moreover, the competitive strategy also includes choices about the organization structure, administrative systems, and policies. Aside from that, Van Delft et al. (2019) underline that firms, which have a globally based focus, have to introduce or rethink their external and internal strategies. Furthermore, the BMI seek for global knowledge in order to generate international competitiveness and to offer new models align with international allowance. Snihur et al. (2019) use state-of-the-art statistical techniques to explore the external and internal sources of new BMs in established firms. The authors shed light on the multidimensional nature of new innovation types such as BMI. On the one hand, BMI pertain as a catalyst for external sources and strategic renewal. On the other hand, different innovation types require different knowledge which refers to the internal sources of a firm. Hacklin et al. (2018) also explore the external environment and its effects on the BM of a firm. Moreover, the authors investigate in the research of BM strategies in terms of industry-level forces. The authors analyze the computer and telecommunications industries in specific. In that regard, they investigate in the competitiveness of the BMs of firms which are operating in the same industry. As a result, they conclude that BMs with low degree of value migration along with new strategic opportunities are more efficient when it comes to innovating their BMs. Foss & Saebi (2018) suggest that the firm should link its properties with its strategic actions in its BMI and BM. Sustainability and innovation can be considered as such strategic

action of a firm. Laudien & Daxboeck (2016) emphasize that BMI is currently seen as a strategic option to raise awareness and competitiveness of a firm. In that regard, the authors examine BMI processes of average market players in order to show that this kind of market participants do not necessarily pursue BMI. The authors develop four phases which show whether an average market player uses BMI or not. These four phases are the following: 1) monitoring the BM fit beyond the industry-level, 2) BM development, 3) opening up the BM, and 4) deliberate BMI. As a result, the authors emphasize that BMI is rather an unintended process than a process they really trace.

Besides, Spieth et al. (2016) also mention the organizational culture on BMI as an important indicator whether a firm is successful with its innovation or not. Thus, some researchers shed light on the research on the phenomenon of BMI. For instance, the prerequisites of BMI, the major parts and processes of BMI, and the key effects evolving from BMI. In this connection, the organizational culture as a part or process of the firm's BMIs is under examination. Moreover, the organizational culture should lead to an explanation of why and how a firm's value system assesses its capabilities and resources for BMI. Spieth et al. (2016) emphasize that the firm's capabilities are tightly connected with its collective commitment, and its resource fluidity. In that regard, the capabilities in connection with the organizational culture of the firm's BMI will show the tendency of a firm.

Guo et al. (2016) analyze the interplay between opportunity recognition and BMI. Opportunity recognition is defined as an individual's efforts in looking for and recognizing opportunities. Thus, opportunity recognition can be seen as a core player for achieving competitive advantage and superior performance on the market. In that connection, the authors evolve a research on the positive influence of opportunity recognition and the performance of small and medium sized enterprises caused by BMI. Whereas Guo et al. (2016) indicate opportunity recognition as a term, Schneider (2017) focuses on opportunities of BMI more generally. In this context, the author evolves a study about how different exogenous conditions impact BMI opportunities for firms. Schneider (2017) gives an explanation about high levels of exogenous and how that is influencing the ability to recognize signals and opportunities on the market. Firms tend to discover rather environmental threats than opportunities when it comes to their BMI. As a result, firms with a high level of exogenous volatility rather fail to create opportunities for their BMI based on their main competences and valuable resources. Moreover, firms with an exogenous impact are able to detect signals and explore opportunities on the market. Additionally, Sorescu (2017) emphasizes that big data could be a great opportunity for firms to rearrange or even create a new BM even though research on this topic is incomplete. Schneckenberg et al. (2016) explore opportunities of businesses related to decision making in BMI. In that regard, the authors mention that value creation mechanisms provide the ability for firms to engage in new opportunities with their BMI by developing new products and services on the market. A successful BMI requires an interplay between value proposition, value creation, and value capture. Coping mechanisms can help for a better understanding of these three configurations.

Karimi & Walter (2016) investigate in corporate entrepreneurship, disruptive BM adoption, and its performance. The authors mention the importance of digitalization when it comes to sustainable BMs and that various firms struggle by finding the right BM to react to these digital changes. The aim of these firms is to take advantage of the Internet and digitalization. In their research, the authors develop five hypotheses which should guide and underline the performance of disruptive BMI adoption. The five hypotheses include the following: autonomy, risk-taking, innovativeness, and proactiveness. Autonomy, risk-taking, proactiveness, and size can be associated with disruptive BMI adoption, whereas innovativeness does not show any coherence with the performance of the BM. The size is ambivalent as it shows a great performance at a low or high level of disruptive BMI adoption, while the performance is only fair at a medium level of disruptive BMI adoption. Futterer et al. (2018) also explore the performance of BMI and its effectiveness in relation with internal corporate venture. In that connection, the authors research in the following three fields: direct effects of effectuation and causation of BMI, the relationships of these effects and industry growth, and the general effect of BMI on internal corporate venture performance. As a result, effectuation and causation both affect BMI and internal corporate venture can be seen as an entrepreneurial guideline a firm can follow.

3.3.4. Cluster 4: The Implication of Social Perspectives in Business Model Innovation

Dentchev et al. (2016) recognize the need for further research on the topic social entrepreneurship caused by social transformations in the long run. Moreover, the authors question the similarities and differences among BMs and their aims to reduce social and environmental damages. Thus, another question lays on the financial budget of social enterprises and how they develop such financial resources. Another option for further research is the question about the differences between a BM of a social entrepreneur and a BM of a traditional for-profit BM along with the possibilities to develop and implement a BM for social enterprises. Mongelli & Rullani (2017) provide a definition for social entrepreneurship or better to be said for social enterprises in general. In that regard, the authors indicate that social enterprises have a hybrid nature, create “blended value”, and use economic and social components. Moreover, social enterprises want to create social impact which is done by indicating an economically sustainable way or environmentally friendly way. Mongelli & Rullani (2017) as well as Olofsson et al. (2018) emphasize that for the creation of this social impact, the application of the right BMI is crucial. By doing so, often a conflict arises as social impact and economic logic is sometimes difficult to merge with each other. Along with Dentchev et al. (2016), also Olofsson et al. (2018) indicate the importance of BMI when it comes to environmental and social changes of an organization in general. Moreover, Olofsson et al. (2018) add to Mongelli & Rullani (2017) that social enterprises focus primarily on social and environmental missions in order to become sustainable in the long-term. However, Olofsson et al. (2018) also mention that the research in this field is still under progress as most of the publications about social enterprises are focusing on industry sectors, rather than on the social entrepreneurs itself. Additionally, it is still unclear how social enterprises evolve over time and how they are connected with BMI in detail.

4. Discussion and Conclusion

The purpose of this paper was to give an overview of the current state of research on the topic BMI by conducting a SLR. It provides three dimensions evolved from the comparison of the clusters generated according to the results of the literature review: organizational factors, environmental factors, and societal factors. These three dimensions are essential to be considered for future directions of this research field. Moreover, this dimensionalization leads to a better understanding for managers of firms since BMI causes relevant managerial challenges (Foss, 2017). It is essential to overcome these managerial challenges, otherwise the firms' BMI would be less efficient, and the company will not be able to successfully resist on the market on the long run.

These three dimensions were developed by the consideration of the main drivers of BMI, i.e. are products and services. This perception is derived from the results by the SLR, which is discussed under the section implication and illustrated in Figure 3: Cluster 1 provides the theories of the BM model concept, which build the core knowledge of BMs. Cluster 2 takes products and services into account, whereby BMI is tightly connected with new products and technologies. Moreover, cluster 2 also indicates that products and services in different forms are closely related to BMI and its organizational structures. Cluster 3 covers the topic of organizational aspects in connection with BMI. This first dimension clearly shows that organizational factors are the core for every BMI and they are absolutely essential for the success of the BM of a company. Cluster 3 deeply investigates in BMI. On that account, the SLR shows that the scholars who recently published articles about that research field focus more on BMI, whereas in past publications only a few scholars recognized the consideration of the form BMI in their theories. Moreover, the SLR indicates that the scholars have more knowledge about BMI and are more likely to detect further research gaps in this field. This cognition also shows how interchangeable these two terms BM and BMI are being used.

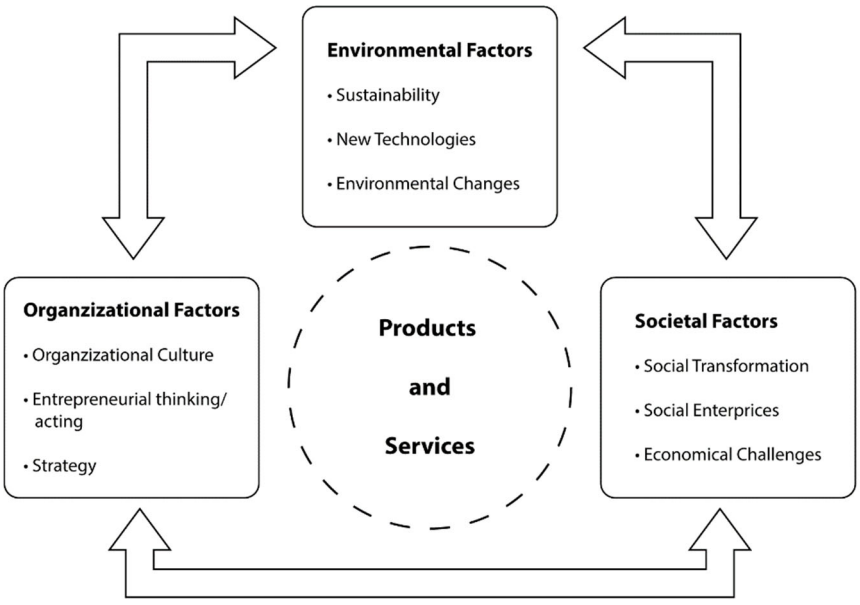

Figure 3: Factors influencing business model innovation

The second evaluated dimension concerns with environmental factors. In that dimension, the SLR gives a better understanding and a more detailed overview of the influencing factors reflected in cluster 1, including cluster 1a and 1b. Whereas past researches are more focused on the searching for product innovation and new technologies as well as their influence on BMs, publications nowadays already explored this coherence and even developed a so far new form of BMI namely sustainable BMI. On that account, sustainable BMI received its attention recently. This form of BM became crucial in nowadays businesses as gradually more companies have to consider environmental changes and challenges in their business actions and decisions. Along with the rise in sustainability, also new technologies received its focus as they could lead the company in a totally new direction with its BMI. It can be the case that the company has to develop a totally new BMI according to the external changes an organization might faces.

Finally, the third dimension reflects the societal factors. This dimension is only considered in cluster 4 and therefore evolved from the SLR. Even though societal factors are nothing new or anything that evolved over time, it is surprising that past researches, did not consider this factor in their analysis. For that reason, it is even more important to mention that societal factors such as social transformation and economically changes have an influence on the firm's BMI as well.

As with any study, also ours entails several limitations. For example, our SLR focuses on articles from the database WoS, which limits the results as other databases might show other outcomes. Future research might therefore want to double check our results by the use of e.g. EBSCO or Scopus as alternatives. The literature review selects only journals which have a *VHB Jourqual 3* rating of at least "B", so that lower ranked publications dealing with the topic have not been recognized. Thus, the SLR also set another restriction, which said that only articles published between 2016 and 2019 have been considered. This restriction rendered the results quite up-to-date and current, but also implicates that publications which might be cited more often and might give deeper understanding of the topic, had been omitted. Besides, the clustering of the articles in different categories is rather the subjective opinion of the author then an objective valuable approach. For that reason, any other author might interpret the results differently and comes to another point of view.

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