

Truly Sustainable Business Models

A Value- Based Approach for Sustainable Production and Consumption

Revised Research Proposal for Submission to the EURAM 2018 Doctoral Colloquium

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Abstract:

Even though sustainability management is hugely popular amongst companies, the actual state of the planet fails to reflect this development. Scholars refer to this phenomenon as the *big disconnect* and argue for a change in perspective for companies in order to effectively address those sustainability challenges. This means, instead of focusing on the reduction of the footprint of the firm, they should direct their business at the positive creation of value across all dimension, social, environmental as well as economical. Consequently, sustainability challenges need to be regarded as opportunities that can be solved through business activities. The business model was identified as a suitable unit of analysis due to several characteristics. Most importantly it depicts the value created, delivered and captured by the company's business, as well as the value proposition in form of the offered product or service. While doing so it reaches far beyond the boundaries of a firm by also including a wide network of stakeholders, ranging from customers to suppliers or investors. This holistic view makes the business model especially interesting to be studied in the context of sustainability. Building on the concept of *true business sustainability* by Dyllick & Muff (2016), a framework for truly sustainable business models will be developed in this thesis in order to help connect companies with the macro level of sustainable development, thus bridging the *big disconnect*. In order to focus the work, truly sustainable business models will be developed for the context of sustainable production and consumption. The empirical part of this thesis will identify reoccurring patterns of (truly) sustainable business models in sustainable start-ups and shining examples of visionary companies.

1.1 Introduction, Background and Research Gaps

Sustainability has become a buzzword amongst company leaders and scholars alike. A simple Google search for the term yields 440.000.000 results as of today¹, compared to only 19.700.000 in 2013 (Weidinger et al. 2014). On the business side, more and more companies integrate sustainability or CSR into their daily operations, strategy or even business models. A recent study located the topic in the top five priorities of CEOs (BSR & GlobeScan 2016). Yet this popularity fails to show in the overall state of the planet. 15 of the 16 hottest years in modern record keeping have occurred since 2001, with 2016 being on top of the list (NASA 2016). Some regions of the world, like part of the Middle East or North Africa may even become inhabitable, causing a stream of climate refugees (Max-Planck Gesellschaft 2016). Consequently risks associated with climate change, especially with a failure of the Paris agreement were rated most severe regarding their impact (World Economic Forum 2016). But climate change is only one of the nine planetary boundaries used by Rockström et al. (2009) to depict the state of environmental sustainability challenges we as humans are facing. Amongst others the authors also monitor the rate of biodiversity loss or waste pollution. In general, risks associated with environmental degradation –for example extreme weather events or the water crisis- were rated most severely on the latest Global Risks Report by the World Economic Forum (World Economic Forum 2018). By 2050 it is estimated that the amount of plastics in the oceans exceed the amount of fish, measured by weight (Ellen McArthur Foundation 2016). On the other side of the triple bottom line are social challenges like unfair and unsafe labor conditions, hunger or inequality of incomes, both between genders as well as between countries or regions. Rising income and wealth disparity has been under the top global risks for the last years as well (World Economic Forum 2018). This phenomenon of a mismatch between popularity of sustainability management on the company with the disastrous ecological and social indicators on a macroeconomic level is described by scholars as the “big disconnect” (Whiteman et al. 2013; Dyllick & Muff 2016). In order to bridge this gap, firms need to adopt an outside-in approach when integrating sustainability into their business (Dyllick & Muff 2016). This means switching the perspective from reducing the negative impact of the firm and looking at how the firm

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can improve its environmental and social performance to create a positive impact for society. Connecting to the above, the phenomenon of the big disconnect is the first gap this thesis wants to address.

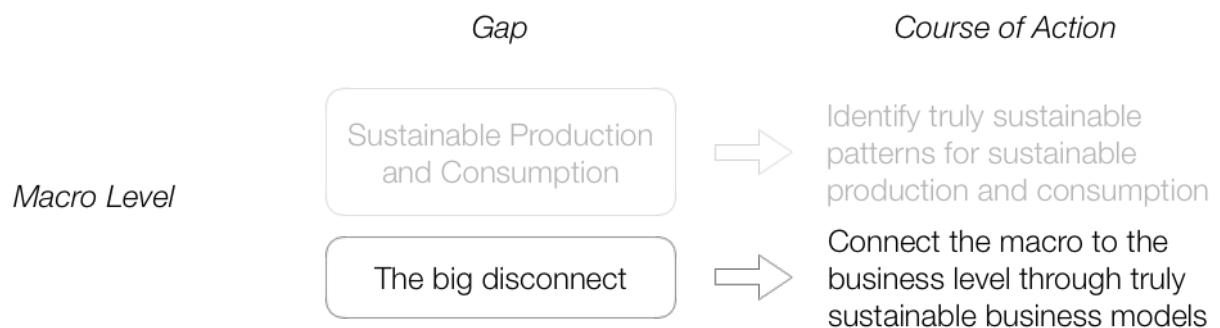


Figure 1: Research Gap 1

The importance of the private sector to successfully tackle sustainability has once more been emphasized by the joint global consensus around the Sustainable Development Goals (SDGs) (United Nations 2015). Those goals are replacing the Millennium Development Goals (MDGs) and shape the agenda for sustainable development until 2030. Unlike the MDGs, the SDGs explicitly address the responsibility of businesses in sustainable development, and - for the first time ever - point to their important role for a success (von Angerer et al. 2016). Although the MDGs were never really addressed by businesses, let alone on their agenda of doing business, the private sector largely contributed to their success, mainly indirectly through the creation of jobs, helping to raise millions out of poverty (Stuart et al. 2016). Since the adoption of the SDGs, governmental institutions, NGOs and different actors in the private sector developed several guidelines and tools to support businesses in fulfilling their responsibility (GRI et al. 2015; UN Global Compact; KPMG 2015). Of special interest for companies to contribute towards these goals is SDG 12: sustainable production and consumption. Our rates of production and consumption grow at an alarming pace. While in 1970 the resources one planet could absorb as well as reproduce within a year was equal to one planet, earth overshoot day, a measure for this event, is moving forward every year and is expected to follow this pattern for this year as well. The economic growth of developing countries is aggravating this problem even further. An expected additional two to three million middle class consumers is expected to evolve by 2050 (UNEP 2017). If we do not switch to a more sustainable system of production and consumption this development will ultimately cause

massive problems. We need to decouple resource use from the creation of value, i.e. achieving social and environmental prosperity and wellbeing.

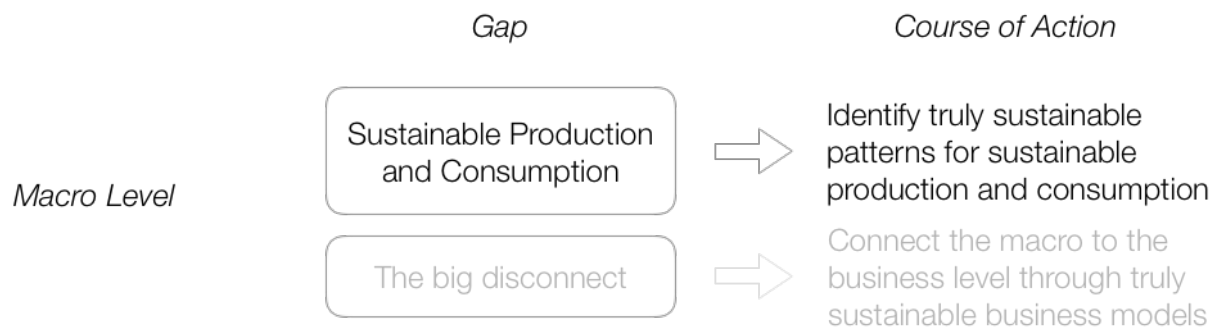


Figure 2: Research Gap 2

The business model is emerging as a new unit of analysis in contrast to -for instance- strategy or business processes (Zott et al. 2011). It adopts a holistic, system-level perspective as it goes beyond the boundary of a single firm, also incorporating the value network and other stakeholders such as customers. With regards to sustainability this point is important. Partnerships across firms and the wider value network are crucial for successful sustainability management and an effective contribution of companies to sustainable development. The interconnectedness of all partners is thus best represented through the concept of a firm's business model. Third, a business model goes beyond the explanation of how the value is captured but also describes how it is created, thus is not limited to simply describing the profit or cost structure of a firm. It is important to note that traditional business model literature implies purely financial value, whenever value is mentioned. In the context of this thesis, value means financial, as well as both social and environmental, implying that we are looking at how companies can create value not only for themselves but also for society and the planet. Consequently it is not surprising that another study by Kiron et al. (2013) found that almost 50% of companies engaging in sustainability activities altered their business model to reflect those changes. Also, studies found that business model innovation made firms more successful than only innovating products, services or processes (Lindgardt et al. 2009). Another argument for the business model as the unit of analysis is the notion that improvements in resource efficiency -incremental innovations- are not enough to counteract rising consumption and environmental degradation. Instead a rebound effect oftentimes overcompensates efficiency savings; through those savings a product or service becomes cheaper thus the

demand increases (Binswanger 2001). This levitates business model innovation to be a powerful instrument for an effective contribution towards creating societal and environmental value. The term “truly sustainable business model” refers to this fact; rather than creating financial value for the firm and minimizing a firm’s negative impact, a truly sustainable business model creates positive value for society and contributes towards solving the great sustainability challenges. During a review of existing literature on business models as well as sustainable business models it became clear that current definitions and frameworks fail in being able to accommodate such a progressive understanding of sustainability and value creation. Concepts like the business model canvas by Osterwalder & Pigneur (2010) and even definitions relating to business models for sustainability, for example by Boons & Lüdeke-Freund (2013) or Bocken et al. (2014), still focus on success in terms of financial value. Also, they apply an outside-in perspective, concentrating on reducing the bad instead of increasing the good. Thus, the development of a truly sustainable business model framework also calls for a redefinition of what it means to be a successful company in the context of true business sustainability. Especially the focus of value capture needs to be expanded to a wider set of stakeholders and even society and the planet. This goes hand in hand with a redefinition of company purpose to reflect this holistic thinking. Because business success is still mostly associated with profit, it was chosen to rather speak of an effective truly sustainable business model, rather than a successful one.

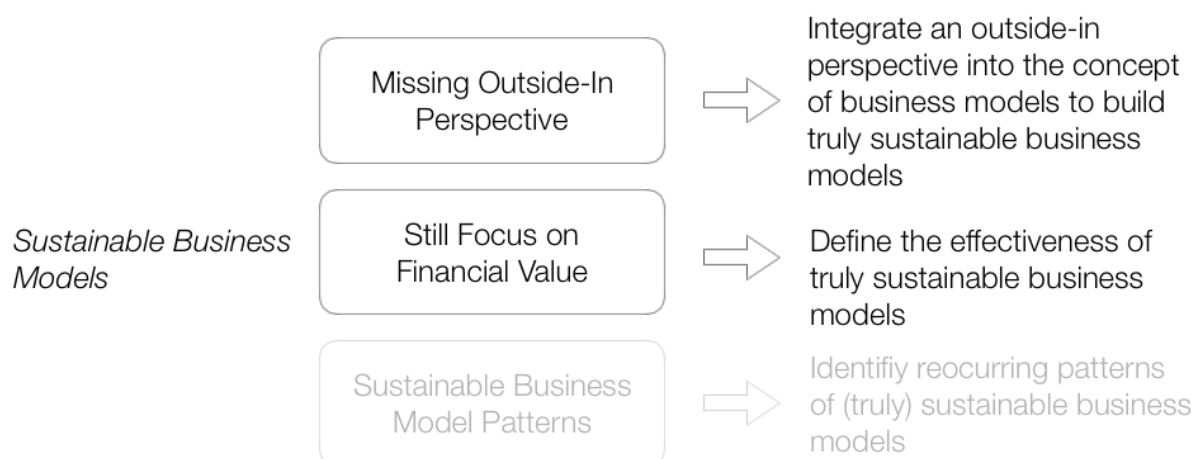
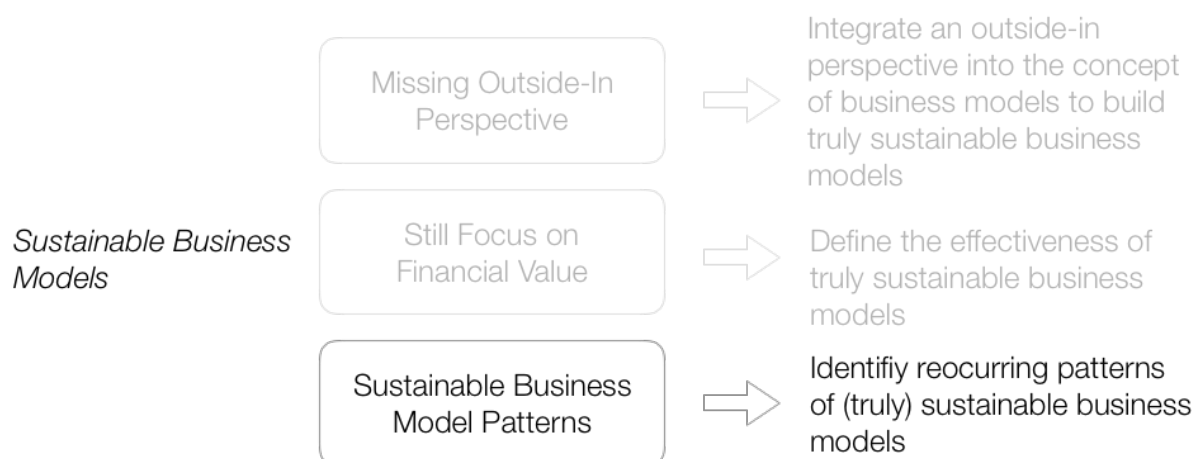


Figure 3: Research Gaps 3 and 4

Whereas most of the established companies still struggle to accommodate a new understanding of doing business and only slowly adjust to those new market challenges,

smaller companies like social businesses or start-ups already move towards a redefinition of their purpose of being in business. They work on solutions to establish new business models, serve new customer segments of responsible consumers and demonstrate the potential success of doing so. Their business models are often developed from scratch and aim at solving a specific, more or less impactful social and environmental sustainability challenges. Examples reach from start-ups working on a solution for oceanic plastic pollution to those fighting food waste or help to integrate refugees. Generally small companies are more innovative and flexible in their doings, and, for the case of environment it can be argued that they often inhibit a higher degree of sustainability (Gelbmann et al. 2013; Bos-Brouwers 2010). Are there already examples of truly sustainable business models developing in those companies? And what can we learn from those examples? For the case of traditional business models, evidence was found that every new business model is -in fact- just a recombination of different, reoccurring patterns (Gassmann et al. 2017). Research already tried to find evidence for so called patterns or archetypes for the case of sustainable business models. But sustainability was only binary, a yes or no in those cases. Until now research is still missing a differentiation of those archetypes regarding their effectiveness to address greater sustainability challenges. By including the approach of true business sustainability, it will be easier for companies to identify the most effective business models to adapt in order make a significant contribution towards solving the sustainability challenges and to contribute towards sustainable production and consumption.



1.2 Research Questions

Building on the identified research gaps and aiming at closing them, we formulate the following research leading question:

Research Leading Question: How can truly sustainable business models help businesses to effectively contribute to sustainable production and consumption.

Additionally, this thesis aims at answering five sub-questions, which are identical to the research process:

RQ 1: What do we mean by sustainable production and consumption?

RQ 2: What do we mean by truly sustainable business models (TSBM)?

RQ 3: When is a TSBM effective?

RQ 4: What can we learn from best existing practice for effective TSBM?

RQ 5: What are underlying patterns of TSBM for sustainable production and consumption?

Figure 4 provides an overview of the identified gaps, as well as the course of action aimed at closing them.

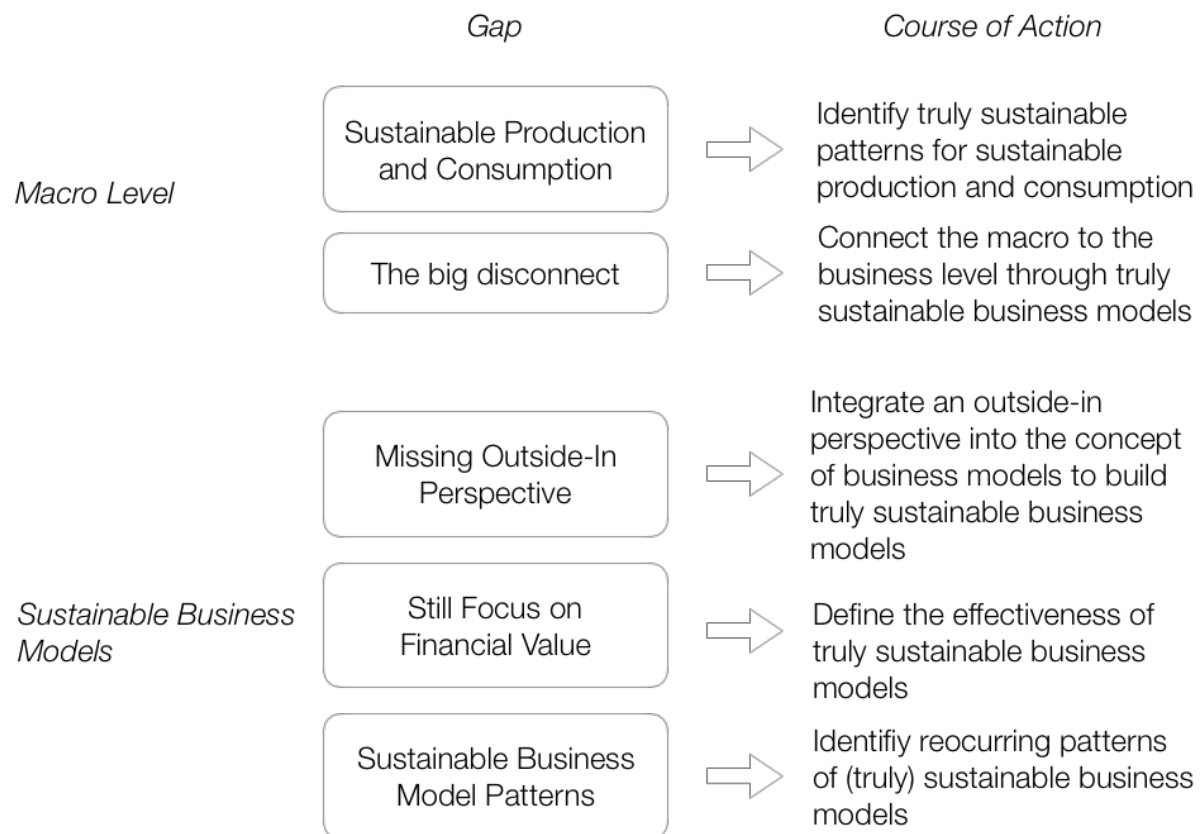


Figure 4: Research Gaps and Course of Action

1.3 Research Aim and Objectives

The aim of this research is to show how the concept of truly sustainable business models can be used to create an impact towards solving the great sustainability challenges on this planet, focusing on challenges resulting from unsustainable production and consumption patterns. This research shall deepen the understanding of sustainability and especially sustainable development with regards to business models and make a contribution towards bridging the “big disconnect”. The development of truly sustainable business models to effectively address sustainability challenges will be focused on the adoption of an outside- in perspective, regarding those challenges as business opportunities in the Druckerian sense. Thus, the ultimate aim is not only to deepen the understanding on an academic level but also to provide businesses with an easier concept for effectively addressing sustainability challenges and making a real contribution.

1.4 Research Process and Method

Methodologically this thesis will alternate between conceptual and empirical work. For the components of a truly sustainable business model, expert feedback and opinions will be incorporated into the conceptual process. The analysis of shining examples and progressive sustainable business models, especially in the start-up sector will connect the findings in reality. This leads to an iteration of steps and an adjustment of the developed criteria.

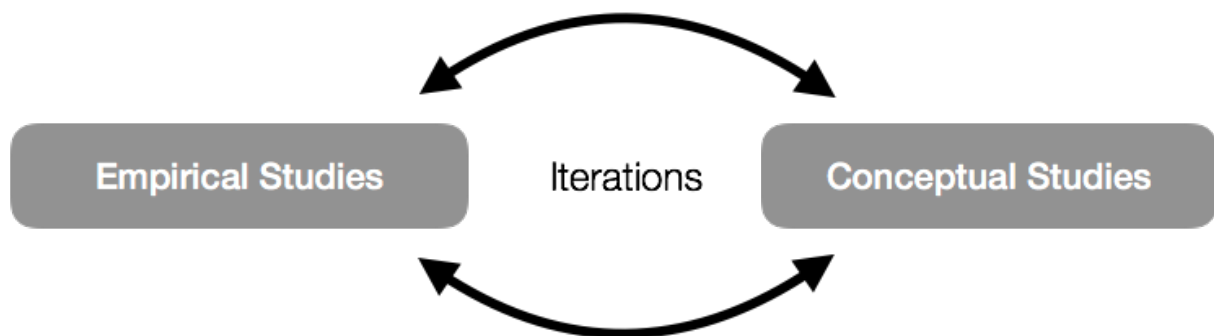


Figure 5: Methodology

The elements of truly sustainable business models will be determined mostly conceptually, but can be seen as incorporating a “discussion” or iteration between conceptual and empirical components. First of all a conceptual analysis of existing literature will set the starting point for the development. Useful and non-useful elements of such a framework will be determined. This will lead to a first draft of a truly sustainable business model framework. Findings from the analysis of truly sustainable business models in start-ups and shining examples will also be integrated into the framework. A conceptual emphasis will focus those models to address challenges of sustainable production and consumption.

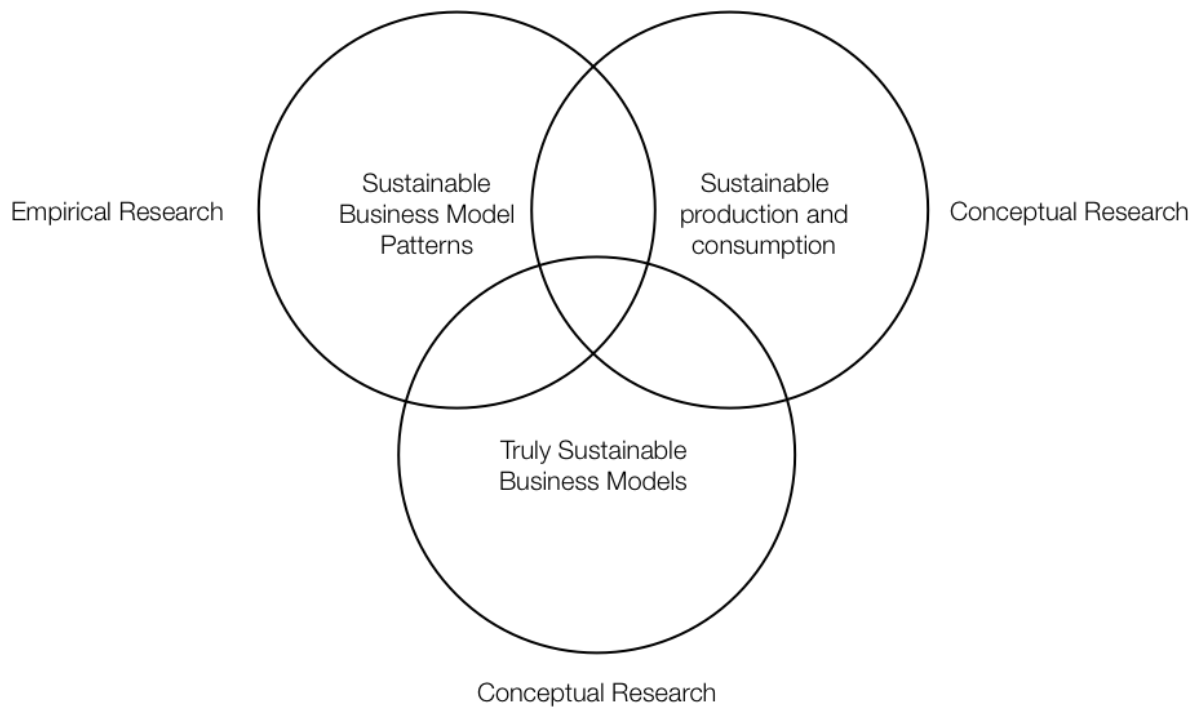


Figure 6: Elements of the Thesis

The first step in the empirical research is the analysis of already existing sustainable business models if they meet the criteria of true business sustainability, developed in the previous steps. As especially social and sustainable start-ups were found to be more innovative and inhibit a more progressive understanding of sustainability, the samples will be mostly drawn from such companies. On the other hand, those small companies differ from established companies in a lot of organizational characteristics. This is why some shining examples of successful incumbents will also be included in order to ensure an applicability of the truly sustainable business framework also for larger companies. Certified B-Corporation can be a source for such established but sustainable companies. The selection of business models will only include those directed at sustainable production and consumption patterns in order to focus the findings and put them into a specific context. Another goal of the empirical research and a next step is to see if there are particular, reoccurring patterns of truly sustainable business models, which could help to systematically address above mentioned challenges.

Figure 6 depicts the different elements of the thesis. Combining all three of those elements at the intersection are truly sustainable business model patterns for sustainable production and consumption, thus the ultimate finding of the thesis.

2. First Findings: Truly Sustainable Business Models

In order to draw the outlines for this thesis it is first important to establish an understanding of what is meant to speak of true business sustainability. As an underlying concept this thesis will use the typology of true business sustainability or business sustainability 3.0 which was established through Dyllick & Muff (2016). This typology will be used to transfer the criteria to the concept of business models, resulting in a typology for truly sustainable business models, respectively sustainable business models 1.0 or 2.0. This differentiation is intended to help the effective contribution of sustainability management towards sustainable development. Business Sustainability 1.0: As the first step towards true business sustainability, business sustainability 1.0 is also characterized as “refined shareholder value management” (p. 163). This means that due to the realization of new challenges for business, risks and opportunities resulting from those challenges are taken into consideration. They are integrated into the business, yet the underlying business logic stays the same, as profit maximization is still the organization’s only goal. Business Sustainability 2.0: The next step in this framework is also defined as “managing for the triple bottom line” (p. 164). Value is created for a broader set of stakeholders by deliberately addressing their specific needs under the consideration of social and environmental goals and measurements. Although it is a big progress from the previous step, business sustainability 2.0 still takes an inside-out perspective on sustainability (Dyllick & Muff 2016, p.168). Business Sustainability 3.0/True Business Sustainability: Only through a truly sustainable business the big disconnect can effectively be addressed. It means switching the perspective from an inside-out to an outside-in approach and regarding sustainability challenges as business opportunities. Instead of seeking to reduce the firm’s negative impacts, a truly sustainable business creates significant and effective positive impact towards solving sustainability challenges on a macroeconomic level.

Another building block for this thesis is the concept of sustainable business models. Although there is a growing body of literature, the underlying understanding of sustainability can mostly be described as business sustainability 2.0. Although for example Bocken et al. (2014, p.44) describe business model innovations for sustainability as: *“Innovations that create significant positive and/or significantly reduced negative*

impacts for the environment and/or society, through changes in the way the organisation and its value-network create, deliver value and capture value (i.e. create economic value) or change their value propositions.” Yet the outside-in perspective is still missing from this definition and it more resembles managing a triple bottom line approach. Furthermore they still focus on the creation of financial value, regarding social and environmental value as necessary, yet an add on. Nevertheless this thesis builds on the definition of a business model this stream of literature implies, by defining a business model as consisting of three elements: *value proposition*, *value creation & delivery* and ultimately *value capture* (see for example Teece (2010); Bocken et al. (2014); Osterwalder & Pigneur (2010)).

In order to reflect a broader sense of the understanding of value as covering also social and environmental next to financial value, a slight adaption of the terminology is needed. First of all the term *value proposition* is traditionally associated with a product or service offering to a specific customer segment. In this thesis we argue that the value proposition should also expand to offer value to wider stakeholders, going as far as society and the planet. That is why it should be referred to as *societal value proposition*. The value proposition is influenced by which sustainability challenges a company wants to address, determined in the company’s vision and mission (see figure 7).

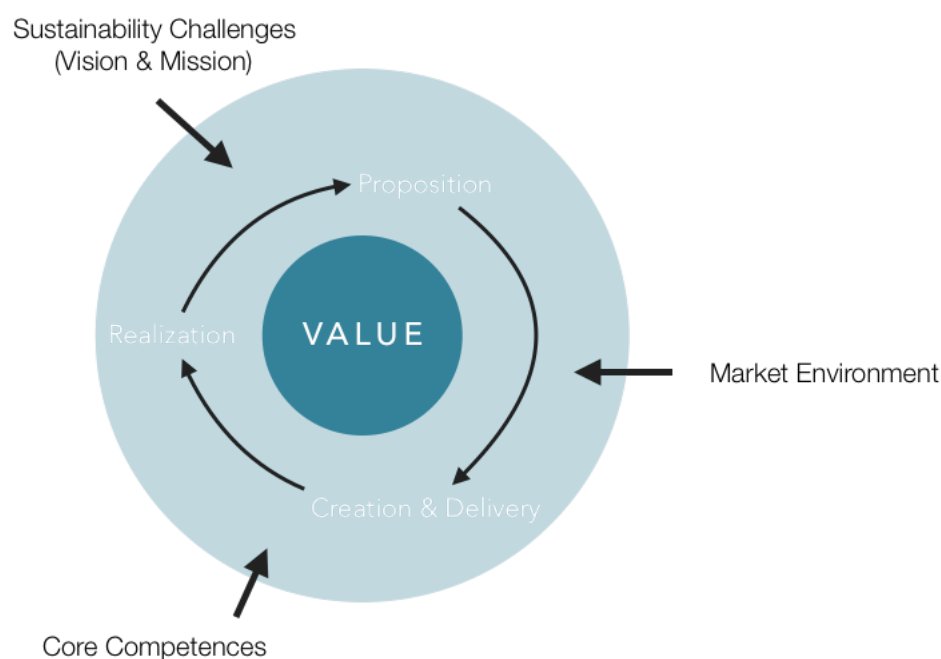


Figure 7: Elements of a truly sustainable business model

Furthermore the market environment has an influence on the business model's societal value proposition as well as the creation and delivery of this value. This part, the creation and delivery of societal, environmental and also financial value should be matched to a firm's core competences. Using a firm's core competences to create societal and environmental value next to value for the firm is the most effective way to contribute towards solving the great sustainability challenges. Last but not least, a traditional business model speaks of the mechanism by how the created value is captured. The underlying assumption is that purely financial profits are captured solely for the firm's benefit. In order to underline the inherently different understanding that for the case of truly sustainable business models this value is captured not only for the company but for a wider set of stakeholders and is not limited to monetary value, we refer to this element of the business model as *value realization*. This element describes how and who profits from the created value.

Figure 8 depicts the different levels a business model proposes, creates and realizes values in.

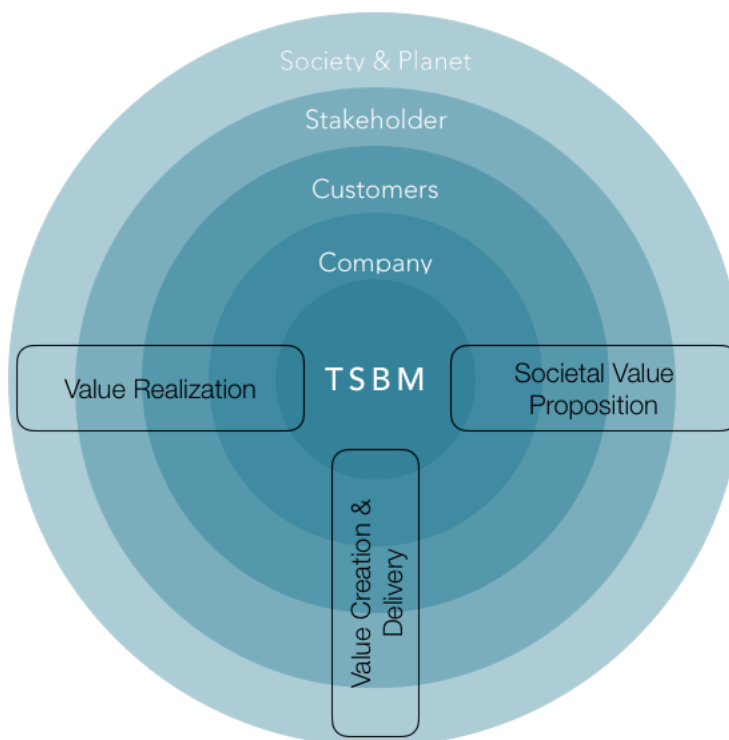


Figure 8: Levels of a Truly Sustainable Business Model

In order to categorize the value creation of a truly sustainable business model, different questions need to be posed at the different levels the business model spans:

Table 1: Truly Sustainable Business Model Across Different Dimensions of its Environment

	Company	Customers	Stakeholders	Industry Level	Society	Planet
Value Proposition		Which value do we offer to the customer?	Which Value do we offer to our wider stakeholders?		Which value do we offer to society?	Which value do we offer to the planet?
Value Creation	Which value does the business model create for the firm?		Which value does the BM create for the stakeholders?	How does the value creation transform the industry?	Which value is created for society?	Which value is created for the planet?
Sustainable Core Competences (Key Resources, Key Activities)	Are the core competencies used most efficiently?		Can core competencies be leveraged through the value chain?	How can core competences be acquired through industry collaboration?	Do the core competencies benefit society?	Do the core competencies benefit the planet?
			How can core competences be acquired through stakeholder collaboration?			
Value Realization	Does the firm profit from the BM?		Is value captured for the stakeholders?		Is value captured for society?	Is value captured for the planet?

Depending on the answers to these questions a business model can be categorized to be truly sustainable in the value domain, or not.

A next step and currently in progress is adding the outside-in perspective as well as a functional approach for the societal value proposition at customer level. This means an abstraction from product or service offerings, to understanding products as a service. One example it to rethink transportation to move away from selling cars to offering mobility.

As another step, truly sustainable business models need to be adapted to the specific area of sustainable production and consumption in order to focus the work. Several interesting areas for truly sustainable business models such as circular economy or regionalization for the production side, and sharing economy or sufficiency for the consumption side were identified to be potentially interesting. It is important to note that sustainable production should not be regarded as different parts but as a connected system. In the context of business models and in order to focus this topic, it is important to first distinguish between consumption demand by customers and consumption supply by companies, offering products or services. While companies have a direct influence on what the offer to the customers, consumption demand can only be influenced indirectly by them. Consequently, a company's business model can influence consumption demand directly, while they only indirectly influence what their customers demand. In the further conception of truly sustainable business models this differentiation will lead to a selection of different areas for business models, such as above mentioned circular or sharing models.

3. Feedback in the Doctoral Colloquium

The most valuable feedback for me in the doctoral colloquium would especially evolve around the conceptualization of truly sustainable business models, especially the approach of dimensions and the corresponding questions. I am aware that one crucial part -the state of the art literature review- is still missing at this is current work in progress. Feedback on the validity of the process, the actual relevance of the (preliminary) findings as well as the applicability in practice would be highly appreciated. As the methodology of this dissertation is a bit unconventional, feedback on the research process as a whole would also be very welcome. In general it would be a great opportunity to get feedback on the thesis and research process, as such a peer review is especially scarce in the case of writing a monography.

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