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Challenges of transforming a Business Model to a Sustainable Business Model

A case study based on IKEA and Tetra Pak

by

Viviana Bermúdez

Martin Alexander Schneider

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Supervisor: Magnus Johansson

Abstract

Climate change, poverty, inequality and the increase of strict regulations - these are just a few of the factors contributing to the rise of sustainability in today's corporate environment. As society and the worldwide population are affected by these omnipresent changes, it becomes inevitable for companies to transform their business models in order to respond to demands concerning sustainability. However, this process implies challenges that have so far not been further examined by literature - neither have the actions that companies need to implement to overcome them. Thus, this research aims at providing deeper insights into the emerging field of Sustainable Business Models. In particular, the following thesis envisions to contribute in terms of gaining understandings about the challenges of this process and to provide insights about how companies can overcome them. In order to reach this aim, a qualitative approach was selected and a multiple case study based on Tetra Pak and IKEA was conducted. To provide a theoretical background about the most relevant topics, a traditional literature review was conducted. Subsequently, these were confronted with the results collected from interviews and secondary data. Our findings suggest that challenges may arise in every element of the SBM while others may affect the whole system. In addition, actions to overcome these challenges require profound consideration regarding different factors such as the type of business and the ownership structure of the company.

Keywords: Sustainability, Business Model, Sustainable Business Model, Challenges, IKEA, Tetra Pak

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List of Abbreviations

ASI	Aluminum Stewardship Initiative
BM	Business Model
BMfS	Business Model for Sustainability
DfE	Design for Environment
FSC	Forest Stewardship Council
ILO	International Labour Organization
MDG	Millennium Development Goals
NGO	Non-Governmental Organization
SBM	Sustainable Business Model
Sedex	Supplier Ethical Data Exchange
SDG	Sustainable Development Goals
TBL	Triple Bottom Line
UNHCR	United Nations High Commissioner for Refugees
UNIDO	United Nations Industrial Development Organization
WBCSD	World Business Council for Sustainable Development
WCED	World Commission on Environment and Development
WWF	World Wildlife Fund for Nature

1 Introduction

1.1 Background

Nowadays the world is facing enumerable threats in terms of environmental and social security. Inequality, poverty, unemployment, climate change, land degradation, and the loss of biodiversity are only some of the challenges that humanity is confronted with (United Nations, 2015). Although various states, the private sector, and civil society have started working together to overcome these challenges, their efforts seem insufficient.

According to the World Bank (2018), the progress made in the last ten years in reducing poverty is not enough to accomplish the goal of ending extreme poverty by 2030. In 2013 10.7% of the world population lived in conditions of extreme poverty with less than US\$1.90 per day. Moreover, labor conditions in several countries are alarming. Income insecurity and decent work deficits have been increasing in the last years. Despite the efforts, 55% of the global population has no access to a social protection system (ILO, 2017). Also, as a result of the internal conflict, terrorism and natural disasters, the number of displacements has reached a new record: 65.5 million people have been forced to abandon their homes (UNHCR, 2018a).

Additionally, human influence on the environment has led the planet to a risky situation. The Intergovernmental Panel on Climate Change (2015) states that greenhouse emissions caused by human activity are the primary cause of global warming and if those emissions continue, changes in the climate system will lead to irreversible impacts on people and ecosystems. Furthermore, four of nine planetary boundaries have been transgressed (i.e. climate change, loss of biosphere integrity, land-system change, altered biogeochemical cycles). This means that we are facing large-scale changes in the Earth system, which may have severe repercussions on societies and economies (Stockholm Resilience Center, 2015).

As a response to this situation, in the last ten years several initiatives to tackle these phenomena have been encouraged worldwide, especially by intergovernmental institutions (see World Summit on Sustainable Rio+10 in 2002; United Nations Conference on Sustainable Development Rio+20 in 2012; Paris Agreement in 2015; Ocean Conference in 2017). One of the most outstanding initiatives took place in 2015 when the Sustainable Development Goals

(SDGs) were announced. The SDGs were built upon the Millennium Development Goals (MDGs) which were not fulfilled and by contrast to the MDGs, they incorporate a triple bottom approach to sustainable development. Therefore, they seek to cover the economic, environmental and social aspects. Moreover, they highlight the relevance of developing stronger cooperation and effective partnership throughout the public-private sector and civil society (United Nations, 2015). Contrary to the MDGs all three actors are equally called to contribute to building a more sustainable future (Scheyvens et al. 2016).

The appeal for stronger cooperation and commitment by all actors has directly impacted the private sector. According to Väättänen and Teplov (2017), companies play a key role and the impact they exert cannot be underestimated. For instance, manufacturing and service sectors have the ability to create jobs with better labor conditions. Firms can also be a source of new technologies and can help to develop technical capabilities to trigger a positive effect on social conditions. In addition, by changing production processes and establishing a cleaner industrial production, the private sector can have a significant impact on environmental conditions (UNIDO, 2015). Furthermore, companies can regard this situation as an opportunity. For instance, companies might be able to reduce their costs in the long-term by using renewable energy, increasing energy efficiency and reducing waste. Moreover, companies transcending traditional markets can increase their sales by meeting the needs of survival economies and emerging market (Hart & Milstein, 1999; GRI et al. 2015).

However, Hart and Milstein (1999) point out that only companies that go beyond incremental improvements will be able to develop a competitive advantage. Thus, in order to appropriately respond to these challenges, companies are encouraged to transform their whole Business Model (BM) rather than implementing individual initiatives that have a lower impact. This indicates that firms need to modify the way of measuring business success to adopt an approach that also includes social and environmental value (UN Global Compact, 2018; WBCSD, 2018). Companies are responding to this appeal, and numerous firms in different countries are transforming their BM to incorporate sustainability throughout all levels of the firm (Bonn & Fisher, 2011). This new approach of BM is referred to by several authors as Sustainable Business Model (henceforth SBM) or Business Model for Sustainability (BMfS) (e.g. Evans et al. 2017; Gauthier & Gilomen, 2016; Lüdeke-Freund & Dembek 2017; Schaltegger et al. 2016; Stubbs & Cocklin, 2008). However, throughout this thesis, references will be made to SBM. Implementing an SBM requires companies to move away from the neoclassical model in which

only profits matter to incorporate sustainability, not only throughout the value propositions of the firm but also in the way that firm delivers and captures value (Stubbs & Cocklin, 2008). Nevertheless, it remains partially unclear how companies can translate social and environmental value into economic value (Bocken et al. 2014). As a result, the transformation process can result as complex and long-lasting.

1.2 Problematization

As Lüdeke-Freund and Dembek (2017) highlight, business as usual (i.e. the way businesses have operated so far), will no longer be appropriate in future society. Both authors state that within academia and the industry there is a consensus that businesses nowadays depend on becoming sustainable more than ever before. As a result, awareness about SBM as well as about the changes required to adopt them have risen. The key consequence of the above-mentioned background refers to companies changing their business models, or companies being created around SBMs, without properly understanding or having thoroughly addressed the possible challenges associated with such change. Furthermore, the problematization is additionally highlighted by the lack of information concerning the actions of how to overcome those challenges. Additionally, while companies face a lack of guidance in terms of what has to be organized differently, the literature about SBM represents a rather new field which is why its extent is limited. Moreover, as it will be presented in chapter two, previous research in this field is widely spread. Thus, a consolidated view is required not only to gain theoretical understanding of the transformational process but also to serve as a guide for practitioners.

1.3 Research Question & Research Purpose

In order to counteract the aforementioned problematization, the resulting research question is the following:

How can companies overcome the challenges of transforming their Business Model into a Sustainable Business Model?

While this thesis will in the following clarify different theoretical components, the aim of this research is to provide a better approximation to burden for companies that are currently transforming, or are about to transform their business models into SBM.

Accordingly, as this thesis provides guidance for companies and researchers, it is of interest to both industry and academia. Hence, the specific objectives are firstly to understand the elements of an SBM by providing information and understanding about the main theoretical components of sustainability and business models. Within this framework gaining knowledge about the transformation process toward an SBM is also envisioned. Secondly, the purpose of this research is to identify the resulting main challenges by aids of converging literature and empirical data. By utilizing the theoretical framework constituted in chapter 2.5 and revised in chapter 5.3, key challenges can be identified and categorized. Subsequently, certain initiatives to overcome these challenges will be identified so that firms can implement them.

Moreover, among this thesis the purpose is also to respond to previously published articles about the same, or very similar, academic topics. For instance, Stubbs and Cockling (2008) and Schaltegger et al. (2016) state that there is a lack of research on SBM. Therefore, further research in this field is required in order to create integrative theories about management of corporate sustainability.

1.4 Research Limitations

Considering the scope of this thesis, we chose Swedish companies which enabled a more fluent process in terms of collecting primary data (e.g. via face-to-face interviews) and, if necessary, a more facilitated access to these companies and its employees. Thus, the thesis will focus on the Swedish retailer IKEA Group (henceforth “IKEA”) and the Swedish food packaging company Tetra Pak. However, as both companies are originally Swedish, average conclusion cannot be automatically transferred to companies in other countries (e.g. companies in developing countries). Furthermore, divergent governmental factors, economic and cultural aspects, and socio-political components can lead to different results.

Moreover, since both companies are privately held, it is important to bear in mind that the ownership structure of private companies differs from public ones, which therefore represents a different approach to business model transformation. By narrowing down the research to privately owned companies, this research represents limitations as it does not include public firms. Publicly listed companies may face different challenges when being confronted with business model transformation toward sustainability which are consequently out of the scope of this research.

Additionally, the selected companies are both large companies that have established themselves throughout the years. As a result, this thesis neglects small and medium-sized companies which means that the conclusions apply more appropriately to companies of roughly the same size. Not only small and medium-sized companies are hence out of scope but also start-up companies as the focal requirement has been set on companies competing on the market for a long time. Nevertheless, some aspects may be partially congruent with companies that are sized and sectored differently, so that a crucial conclusion can be deducted for respective firms.

1.5 Outline of the Thesis

This thesis is structured into six main chapters with partial subchapters for a more detailed understanding. To begin with, the introductory section presents the background, the overall purpose of this research and links to previous research. The second chapter includes a traditional literature review regarding the following key topics: Sustainability, BM, SBMs and challenges of transforming from a conventional BM toward an SBM. This chapter concludes with the presentation of a theoretical framework which sets out the basis for the following sections. Upcoming, the third chapter deals with the research methodology, and offers a description of data collection and data analysis utilized throughout this thesis. The fourth chapter will present the results. Subsequently, by using the theoretical framework developed in chapter two, chapter five analyses and discusses the key findings of the case studies. Finally, chapter six offers the conclusions of this research as well as the practical implications and the opportunities for future research.

2 Literature Review

The following section aims to summarize and evaluate relevant literature for this thesis. The approach adopted in this literature review is classified by Easterby-Smith, et al. (2015) as a traditional literature review since the criteria for the inclusion of literature relies on what the researchers consider relevant and interesting. Thus, first the concept and theories that are crucial to providing the essential context for this research were identified (Easterby-Smith et al. 2015). Subsequently, key scholars in each field were identified. The selection was based on the authors' CVs, publications and on the number of times their academic works have been cited according to Google Scholar. After this, a tracing citation strategy was conducted. Moreover, to evaluate the data, a summary record has been utilized to keep track of each study and assess its contribution.

As a result, this literature review is structured as follows: To begin with, sustainability and its relationship with business is introduced and followed up by a review of the evolution of the business model concept, definitions and elements. After this, the resulting thematic intersection, namely SBM, will be presented. This part includes the history of the concept as well as the debate around the definition, elements and archetypes. Finally, challenges to implementing an SBM will be established. The findings of this last category will be consolidated to develop a guiding framework that will be used as a tool for the collection and analysis of empirical data.

2.1 Sustainability and business

Setting the first theoretical milestone among this thesis, a primary regard will be taken at sustainability in relationship to a corporate environment. As Ekins (2000) states, the term sustainability can be referred to in several contexts - thus he differentiates between an environmental, economic and a social type of sustainability. This differentiation consequently results in divergent questions, for instance whether inputs to human welfare, the contemporary degree of wealth-creation, or social cohesion are able to be sustained or not.

Approximations to a universal definition of sustainability can be found in various literature, however, in the following, this thesis will refer to the repeatedly quoted definition of the World Commission on Environment and Development (WCED). In their definition of sustainable

development, this framework encompasses environmental, social and economic components. Moreover, it addresses resource limitations and simultaneously incorporates the gradual transformation of economy and society. In addition, they define sustainable development as a framework of confronting and satisfying current requirements and needs without jeopardizing the ones of the future (WCED, 1987). Even though this definition originates more than 40 years ago, it is still often tangled upon and enhanced by underlining today's necessity of sustainable values. For instance, Hart and Milstein (2003) reinforce that recognizing global sustainability as a framework for the invention of new business models will result as highly necessary for companies in terms of tackling the pressure of competitors. More importantly, they argue that some industries or companies that are material- and energy-intensive, are threatened by global sustainability as it can be regarded as creatively destructing (Hart & Milstein, 1999). In such cases, awareness of sustainability on an environmental, economic, and social level can be competency-destroying for these sectors. Accordingly, sustainability can be regarded as demanding radical repositioning and can consequently initiate the rise of new and different competencies (Bonn & Fisher, 2011; Nidumolu et al. 2009). Sustainability is therefore central to strategic and technological innovations, yielding both a top-down and a bottom-up approach. Thus, the ability to become environmentally friendly can decrease costs as companies diminish their resource-input (Nidumolu et al. 2009). In summary, sustainable development throughout companies can be regarded as a major, if not the biggest, business opportunity for corporate strategies such as a reorganization (Hart & Milstein, 1999).

Nidumolu et al. (2009) advance this thought and state that conventional business will malfunction and consequently have the urgency of developing innovative and sustainable alternatives. However, such reorientation will only succeed if leading managers and executives acknowledge the fact that sustainability equals innovation. Regarding sustainability as an objective can additionally yield an advantageous positioning for early movers which are difficult to imitate or overcome. Sustainability consequently takes on a substantial role in a company's development.

Having established the significance of sustainability for businesses, it is now inevitable to consider today's circumstances (e.g. climate change, rising poverty, inequalities etc.). According to Elkington (2004) it is no longer solely the process and product design that are being envisioned as focal points, but also the design of corporation and its respective markets, value chains and corporate ecosystems. Methods by which firms measure value should not only

cover financial components but environmental and social ones, as well. Sustainability here is represented in the overlapping intersection between the economic, environmental and social components. Bansal (2002, p.123) expands this and depicts sustainable development to be “inextricably connected and internally interdependent” which underlines the interrelation among these components.

Elkington (2004) argues that in order for an existing company to properly encompass the Triple Bottom Line (TBL) approach, it needs to incorporate crucial requirements in its main framework and take into account the markets it aims to serve. A TBL includes economic, social and environmental dimension which aligns with the dimension identified above by Ekins (2000).

Besides this, Elkington (2004) portrays seven sustainability revolutions and demonstrates how their paradigms change. For instance, as pictured in Figure 1, the revolution 5 deals with *partnerships* and highlights how the paradigm shifts from *subversion* to *symbiosis*. In other words, this type of revolution will significantly and noticeably expedite “the rate at which new forms of partnership spring up between companies, and between companies and other organizations – including some leading campaigning groups” (Elkington, 2004, p. 5).

	Old Paradigm	New Paradigm
Markets	Compliance → Competition	
Values	Hard → Soft	
Transparency	Close → Open	
Life-cycle Technology	Product → Function	
Partnerships	Subversion → Symbiosis	
Time	Wider → Longer	
Corporate Governance	Exclusive → Inclusive	

Figure 1 Seven sustainability revolutions. Adopted from Elkington (2004, p.3)

Additionally, by means of identifying the sustainability revolution, Elkington (2004) describes three pressure waves concerning sustainability throughout the past decades. To begin with, *wave 1* initiated an information flow but only a vague understanding of a timely undetermined limitation of natural resources (e.g. coal, oil, fresh water, etc.). Resulting in a primary emergence of environmental legislations, the reactions, however, were marginal and defensive,

and concentrated on individual components such as compliance only. Secondly, *wave 2* expanded the awareness and knowledge of updated technologies and innovations. Consequently, the need for distinguished products was realized which in turn accelerated the corporate responses and transformed them from being defensive to being competitive.

Lastly, *wave three* incorporates the amplified recognition and appreciation of sustainability which will lead to radical adjustments and substitutions throughout corporate governance. As this also comprises changes in the globalization process, a closer regard is put on public administration, government and society.

As extractable from Figure 2, the broad theoretical field of sustainability literature has been envisioned with decadal changing major themes. For instance, during the 1960s sustainability was majorly related to compliance with government regulation. In contrast, the 2000s encompass a significantly more profound perspective by tangling the major themes of proactive approaches to sustainability, and the realization of sustainability as a strategic goal and in the supply chain.

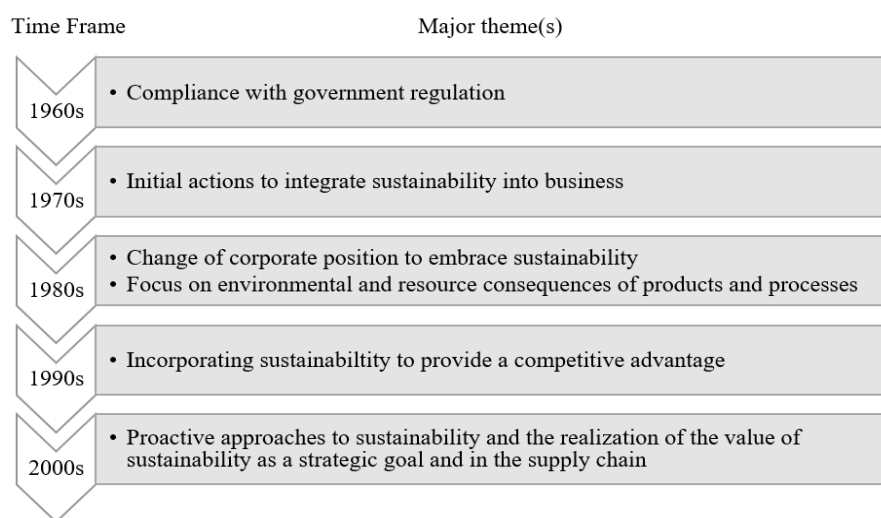


Figure 2 Major themes in the sustainability literature. Adopted from Giunipero et al. (2012, p.259)

Giunipero et al.’s (2012) differentiation among the precedent decades therefore congruently aligns with the aforementioned pressure waves of sustainability in Elkington (2004). Additionally, Giunipero et al.’s article (2012) enriches Elkington’s work by providing sub-categories throughout the years and thus enabling a closer regard of the evolving character of sustainability.

In order to analyze drivers for sustainability, it is useful to differentiate between several components. For instance, there are a number of perspectives such as *regulatory, resource, market and social factors* which can be envisioned when defining such drivers (Chkanikova & Mont, 2015). A so-called regulatory factor can derive from external pressure from governments (such as the UN Declaration of Human Rights) and accordingly underlines the governmental regulation (Giunipero et al. 2012).

Secondly, corporations are constantly under the scrutiny from shareholders, suppliers and investors as they provide both financial and material (e.g. equity, debt, facilities), but also intangible assets (e.g. reputation, technological know-how) which are crucial to a firm's performance. Hence, ascending industrialization and material consumption, as well as environmental pollution and waste decomposition, underline the inevitable resource factor (Hart & Milstein, 2003). Such factors derive from ambitions to align with stakeholder interests of enabling eco-efficiency throughout the value chain. Increasing cash flows and minimizing excessive costs underlines possible resulting financial benefits (Giunipero et al. 2012).

Drivers for sustainability originate as well from market factors such as an elevated customer demand for ecologically friendly products or services. Besides this, competitors and industrial associations can approximate and eventually create industrial norms as they represent market actors and thus, either directly or indirectly, exert market forces (Chkanikova & Mont, 2015). Again, possible financial benefits but also competitive advantages are therefore regarded as drivers of sustainability. More specifically, by investing in "green marketing", firms can establish this immense competitive advantage (Giunipero et al. 2012) and simultaneously reinforce the company's brands and reputation (Chkanikova & Mont, 2015).

Finally, another significant driver of sustainability is represented by social components, e.g. non-governmental organizations (NGO), media, and court pressure. Besides highlighting active NGO movements, Chkanikova and Mont (2015) furthermore emphasize the emergence of "ethical" customers which equally acts as a driver for sustainability. Hart and Milstein (2003) address sustainability in a global context and highlight the increase of human population, rising poverty and inequity, all of which could in turn be regarded as an extended socio-political perspective and is thus a theoretical add-on to Chkanikova and Mont (2015).

As Hart and Milstein (2003) highlight, global sustainability is regarded as multifaceted and versatile which cannot be tackled from one regard only - instead, it requires supervision from all of the aforementioned components. A survey conducted by KPMG in 2008 confirms this

and additionally underlines how sustainability has increased in significance concerning top management within the recent years (KPMG International, 2008).

2.2 Business Model

It was after the 90s and mainly as a result of the dot-com boom that the concept of business model gained popularity in the management vocabulary (Al-Debei & Avison, 2010; Demil & Lecocq, 2010; Shafer et al. 2005). During the last decade, the interest in business models has been rising in academic research, and it has moved from a topic discussed superficially to a new unit of analysis for researchers and managers (Osterwalder et al. 2005; Teece, 2010). For instance, Zott et al. (2011) point out the increasing relevance of business model between 1995 and 2009 in both academic and non-academic environments. During that period, the term *business model* moved from not being mentioned in academic and non-academic articles in 1990 to being included in 1,202 articles in non-academic journals and in nearly 200 articles throughout academic journals in 2009.

Nevertheless, it may be stated that the increasing popularity of the BM concept was not accompanied by agreement around its definition, composition and functions (Achtenhagen et al. 2013; Al-Debei & Avison, 2010). For example, the literature review conducted by Zott et al. (2011) shows that 37% of the publications reviewed do not include any definition of the BM and only 44% offer some conceptualization. Moreover, despite the consensus about the importance of BM to understand corporate success (Al-Debei & Avison, 2010), the BM is frequently confused with other similar business concepts (e.g. strategy) (Magretta, 2002).

To reduce the uncertainty around the BM concept, some authors have developed theoretical frameworks to facilitate its understanding. For instance, Al-Debei and Avison (2010) suggest a hierarchical taxonomy with four upper classes to consolidate and classify the different perspectives of the BM. These categories (V⁴BM dimensions, BM functions, BM reach and Modelling principles) constitute a conceptual framework that helps researchers and practitioners to better comprehend how the BM can be used for different purposes and at multiple levels.

Likewise, Osterwalder et al. (2005) propose a hierarchical tridimensional framework to classify the multiple perspectives of the BM. The first level refers to the definition of the BM and its

elements. The second level consists of understanding the taxonomy of the BM and the sub-(meta)-models. Finally, the third level presents conceptualizations of real world business models. Considering the broad range of perspectives that can be taken when analyzing BM, this thesis will focus on the first level proposed by Osterwalder et al. (2005).

As mentioned before, there is not a unique definition of what a BM is and the elements that it encompasses. The next paragraphs will present the visions of diverse authors that are relevant from the perspective of this thesis. For instance, Teece (2010) defines the BM as the manner by which the firm meets the customer needs and desires. Moreover, his definition also involves the way the company organizes its structure of revenues and costs to deliver value to the customer and make a profit. Similarly, Osterwalder et al. (2005, p.10) describe the BM as “a conceptual tool that contains a set of elements and their relationships and allows expressing the business logic of a specific firm”. This includes the value delivered to the customers as well as the corporate structure and network that allow the company to achieve beneficial revenues.

The more holistic perspectives presented by Demil and Lecocq (2010) as well as by Zott and Amit (2010) are also relevant to this research. On the one hand, by seeing the BM as a system rather than a set of separate activities and resources, managers and researchers gain deep understanding about the connection and interdependence among the different elements (Zott & Amit, 2010). On the other hand, following Demil and Lecocq (2010), the BM can be seen from two different approaches: static or transformational. The former focuses on the core components of the model and how the firm is organized to generate revenues. The latter instead considers the BM as a dynamic system allowing the company to address changes and challenges that can be produced both for external factors such as environmental changes, or internal factors like the outcomes of management decisions.

Furthermore, when describing and analyzing the elements of the BM, the literature shows several categorizations. The number of elements varies from three (e.g. Demil & Lecocq, 2010; Teece, 2010; Zott & Amit, 2010) to nine (e.g. Osterwalder et al. 2005). Despite this difference, three components are consistently present in most definitions: value proposition, value creation and the financial aspects. Thereby, this thesis adopted Richardson’s (2008) approach since his work condenses these three elements. Figure 3 points out the main components of the BM and which sub-components are included in each of these.

Value Proposition	Value Creation and Delivery System	Value Capture
Offering	Resources and capabilities	Revenue sources
Target customer	Organization structure	Economics of the business
Basic strategy to win customers and gain competitive advantage	Position in the value network: links to suppliers, partners, and customer	

Figure 3 The components framework. Adopted from Richardson (2008)

The first element, the *value proposition*, is connected to the bundle of products and services that the firm delivers to customers to meet their desires and needs and that generate an economic return (Bocken et al. 2014; Osterwalder et al. 2005). The second element is *value creation and delivery systems* which refers to how firms organize their structure to put the theory into action; this includes technological architecture and organizational infrastructure (Al-Debei & Avison, 2010). This component also captures the relationship of the firm with its network of partners for creating and delivering value to the customers (Osterwalder et al. 2005; Richardson, 2008). Finally, the *value capture* refers to how the firm yields income for the value delivered to customers and the way it makes a profit (Teece, 2010). This component includes both the revenue model and the economic model (Richardson, 2008).

Looking into the transformation of business models, common elements and definitions highlighting its adaptability have been taken into close examination. Hence, in this thesis the BM is defined as follows:

The BM is a system of activities and elements that interact among each other (Zott & Amit, 2010) and allow the firm to deliver value to the customer in the form of products and services through a specific structure and network to obtain profits and generate sustainable revenue (Osterwalder et al. 2005; Teece, 2010). Moreover, due to its dynamic nature, the BM can (and should) change to respond to new challenges that can be generated by both external and internal factors (Demil & Lecocq, 2010).

2.3 Sustainable Business Model

Having reviewed the definition and relevance of both sustainability and business models, the following paragraph will accordingly focus on the interrelation of these topics. The resulting framework of an SBM will hence be discussed in order to set another theoretical milestone and focal point for this thesis. The connection between sustainability and business models has been envisioned by several authors and has tangled its emergence, relevance and typical characteristics which will be recapitulated in the following.

While implementing sustainability throughout business models is nowadays manifested as a crucial measure for achieving competitive advantages, it is also regarded as a challenging procedure. Still, the majority of executives regards the necessity of incorporating sustainability among their firms as being limited to corporate social responsibility. In fact, they portray sustainability as additional weight to the generic business operations and its strategic layout (Nidumolu et al. 2009). However, once a company decides on implementing sustainability, the firm experiences different stages of change. While each stage poses different challenges, companies need to adapt respectively and evolve new capabilities in order to overcome challenges. Hence, a company needs to rethink its business models, products, processes and technologies.

Portrayed on a global scale, the amount of incorporated sustainability among companies has risen and accentuates the advancement of published sustainability indicators by companies. Accordingly, the significance of sustainability incorporations among business models is highlighted and confirms the relevance of SBMs (Callado & Fensterseifer, 2001).

As stated by Schaltegger et al. (2016) existing literature about SBM has majorly focused on ecological sustainability. However, other researchers regarded business models as methodological instrument in order to tackle social needs. While the antecedents approach profit maximization for shareholder in a conventionally economic way (Stubbs & Cocklin, 2008), the extended SBM framework envisions a multi-dimensional approximation, and thus a wider and more complex framework, including social and ecological coherences (Schaltegger et al. 2016). Both Schaltegger et al. (2016) as well as Abdelkafi and Täuscher (2016) confirm that the concepts around SBM have just recently emerged and have thus been explored within the past few decades.

Despite its recent emergence, SBMs have experienced a noticeably high relevance and are proven to be currently characterized as an emerging field, or at least turning into such in the near future (Lüdeke-Freund & Dembek, 2017). Based on congruent input by practitioners and researcher, Lüdeke-Freund and Dembek (2017) expound the exigency of companies to incorporate sustainability. Additionally, they exemplify that the conventional business, “business as usual”, will no longer be sufficient to comply with today’s market demand. Hence, a significant coherence between academia, businesses and government needs to be manifested in order to more appropriately comprehend the evolution of this emergent field and its potential.

As Schaltegger et al. (2016) highlight, there is a demand for additional research concerning data for business models for sustainability in order to provide supplementary holistic theories for the sustainable development of both economic and societal contexts. Moreover, the relevance of SBMs is enforced by Nidumolu et al. (2009) stating that conventional approaches to business models will deteriorate eventually forcing firms to generate innovative solutions.

Social and environmental goals are not only majorly subordinate to the primarily focused increase of profit, the lack of understanding of SBM and how sustainability is performed throughout companies additionally enhances an alienation among firms to SBM (Stubbs & Cocklin, 2008). However, implementing an SBM demands a sustainability-centered value alignment of all shareholders, stakeholders and the organization itself, which results in regarding sustainability not simply as an add-on but as a business strategy. Similarly to traditional business models, an SBM also encompasses an economic focus, but furthermore envisions a significant ethical component aiming at doing the “right thing” but also the “smart thing” (Stubbs & Cockling, 2008). Additionally, an SBM utilizes a TBL approach and therefore aims at satisfying the stakeholder needs without any biased prioritization among them (e.g. shareholder prioritization). Based on the TBL approach, SBMs include nature as a key stakeholder and differentiates itself from conventional business models by endorsing an environment-including stewardship. Such strategic moves require leaders who promote cultural and architectural adaptation required for a sound sustainability assimilation (Stubbs & Cockling, 2008). Finally, as Stubbs (2010) highlights, an organization as a whole can only function properly, if its subcomponents (i.e. every system included) have also adopted sustainability within every component and are thus aligned with the SBM framework.

As stated in the previous chapter, a business model is a system of activities and elements that collaborate interactively (Zott & Amit, 2010). This system allows companies to deliver value to

the customer by products and services through a specific structure and network to obtain profits and generate sustainable revenue (Osterwalder et al. 2005; Teece, 2010). An SBM however, expands beyond the solely economic regard, and accordingly creates value for a variety of stakeholders which also includes the natural environment and society. Inherently, SBMs amplify the interrelations among a firm's value for customer and natural environment, and the firm itself. As a result, the higher the value created for each component, the more valuable the company will eventually be for itself (Abdelkafi & Täuscher, 2016).

In this sense, the key components of an SBM that originate from generic BMs, require an additional, yet divergent, definition in order to provide a clearer context towards sustainability.

Firstly, among an SBM the *value proposition* is not majorly defined by a certain product or service. Instead, the relationship is rather specified by a bi-dimensional value transfer between the company and its customers and is therefore more dynamic (Boons et al. 2013).

Portrayed on a generic scale, SBMs are associated with noteworthy positive benefits and can noticeably diminish disadvantageous implications in terms of social and environmental dimensions. An SBM hence pursues changes on an organizational level about how the firm can create and deliver added value (Bock et al. 2014). The *value creation and delivery* as second main component of an SBM, needs to be regarded in a wider angle and thus as part of a larger system whose essential elements are concentrated on the customer interface, and the supply chain (Boons et al. 2013). According to Lüdeke-Freund (2009), the infrastructure of SBMs should hence focus on encouraging sustainable activities and resource allocation and utilization among the envisioned value and the supply chain (e.g. by strategic partnerships).

Lastly, the third main component *value capture* is defined as the distribution of costs and benefits with the ideal of a balanced cost-reward-relationship among all actors involved. Furthermore, the value capture in an SBM enables concreteness in terms of defining value and, in contradiction to a conventional BM, an SBM is augmented by concepts for the assessment of environmental and social value (Lüdeke-Freund, 2009; Boons et al. 2013).

According to Boons et al. (2013), SBMs furthermore provide a potential connection of radical and systematic sustainable innovation, with strategic approaches of companies. However, the precise impact of SBMs faces difficulties when estimating its outcomes. Not only does a deficit in terms of transparent measurement systems among the TBL exist, but also does the assessment include a variety of stakeholders and thus partially divergent ambitions, intentions and value

creation capabilities. A solid approximation to tackling this approach represents a challenge for managers and scholars among the SBM subject (Evans et al. 2017).

Categorizing the SBM into archetypes, Bocken et al. (2014) highlight a classification among superordinate order groupings portraying the main type of BM innovation, i.e. technological, social and organizational focused innovation. Such a categorization supports a proper understanding of BM innovation in terms of sustainability and delineates general supportive mechanisms. While it also clarifies a research platform, such an arrangement contributes to an exemplary familiarization for other business with the goal to de-risk BM innovation procedure, e.g. through workshops or trainings. Figure 4 demonstrates these different archetypes and provides examples which can be adapted by companies. Bocken et al. (2014, p.45) state that it needs to be kept in mind that such SBMs should be representing subordinate processes throughout the BM innovation, be transparent and “mutually exclusive and explanatory, but not overly prescriptive”. Firms can utilize this model in order to shape the BM innovation among their own companies. For instance, one specific archetype or a strategic combination of these can be envisioned for a corporate adoption, i.e. companies can investigate transformation designs for themselves. Doing so, this process opens tactical and strategically advantageous opportunities in terms of sustainable value creation and possibly a new corporate structure (Bocken et al. 2014). In that way Bocken et al. (2014) provide an answer to Hart and Milstein (2003) who describe the challenging balance of corporate sustainability and the prioritized rise of shareholder value among the majority of companies.

	Technological			Social			Organizational	
Archetypes	Maximize material and energy efficiency	Create value from waste	Substitute with renewables and natural processes	Deliver functionality rather than ownership	Adopt a stewardship role	Encourage sufficiency	Repurpose for society/ environment	Develop scale solutions
Examples	Low carbon manufacturing/ solutions	Circular economy closed loop	Move from non-renewable to renewable energy sources	Product-oriented PSS - maintenance, extended warranty	Biodiversity protection	Consumer education; communication and awareness	Not for profit	Collaborative approaches (sourcing, production, lobbying)
	Lean manufacturing	Cradle-2-Cradle	Solar and wind-power based energy innovations	Use oriented PSS - Rental, lease, shared	Consumer care-promote consumer health and well-being	Demand management	Hybrid businesses, Social enterprise (for profit)	Incubators and Entrepreneur support models
	Additive manufacturing	Industrial symbiosis	Zero emissions initiative	Result orientated PSS - pay per use	Ethical trade (fair trade)	Slow fashion	Alternative ownership: cooperative, mutual, collectives	Licensing, Franchising
	De-materialization (of product/ packing)	Reuse, recycle, re-manufacture	Blue Economy	Private Finance Initiative	Choice editing by retailers	Product longevity	Social and biodiversity regeneration initiatives	Open innovation (platforms)
	Increased functionality	Take back management	Biomimicry	Design, Build, Finance, Operate (DBFO)	Radical transparency about environmental/ societal impacts	Premium branding/ limited availability		Crowd sourcing/funding
		Use excess capacity	The Natural Step	Chemical Management Services (CMS)	Resource stewardship	Frugal business		"Patient/ slow capital" collaborations
		Sharing assets	Slow manufacturing			Responsible product distribution/ promotion		
	Extended producer responsibility	Green chemistry						

Figure 4 The sustainable business model archetypes. Adapted from Bocken et al. (2014, p.48)

2.4 Challenges of SBMs

As discussed above, during the last decade sustainability has gained importance throughout the private sector which has catapulted the transition from traditional BM to SBM. This change has been encouraged by several institutions (e.g. World Commission on Environment and Development, World Bank, European Union, Inter-American Development Bank) who highlight the role of firms to achieve an improved future. Despite a broad consensus concerning the relevance of moving from traditional BM to SBM, this transition is not free of challenges.

When adopting a new BM, it is not merely enough to simply copy an existing one from another firm (Magretta, 2002). This process requires creativity, a deep understanding of customer needs, information about competitors and changes in the firm's network (Teece, 2010). In particular, the transition toward an SBM demands firms to develop new internal and structural capabilities in addition to strong management attention and leadership (Bocken & Short, 2016; Stubbs & Cocklin, 2008).

Despite the awareness of the difficulties that this process might carry for companies, it is noticeable that the challenges of implementing SBM have not been extensively discussed in

previous literature. Furthermore, there are not many academic studies that focus specifically on this topic (Duarte, 2015; Giunipero et al. 2012). As a result, we have summarized existing data as the majority of articles does not thoroughly discuss this issue. By converging this fragmentary data, we aim at contributing to increasing theoretical knowledge about this field because such aggregation has not been conducted before. Hence, the following paragraphs summarize and organize the previously defined challenges of companies transforming their business model into an SBM. The identified challenges are extended by actions to overcome these and originate from existing literature.

1. Increase customer acceptance

Customer awareness about sustainability issues has increased in recent years and the customer pressure for more sustainable products and services has become a driver for sustainability in some industries (Elkington, 2004; Giunipero et al. 2012; Hart & Milstein, 2003). Nevertheless, the literature reveals that consumers' preferences and their lack of interest in sustainability issues can be one primary barrier to companies transforming their BM. For instance, Bocken and Short (2016) argue that consumers seek variety and status through owning the latest gadgets or novel products, which in turn incentivizes companies to shorten the life cycle of their products. Thus, a BM that encourages more durable products and the reduction of consumption can generate concerns and become a barrier to transform the BM.

Moreover, Dearing (2000) as well as Chkanikova and Mont (2015) indicate that although there is a belief that customers are keen to buy more sustainable products, the reality shows that given the choice between price and environmental quality, the former appears to have more weight at the moment of taking the decision.

Possible actions to overcome this challenge

On the one hand, companies need to gain a deep understanding about their customers to identify their concerns and the best way to fulfill these needs. For instance, while customers in some industries may appreciate eco-labeling practices, customers of another industry may find this approach useless (Laukkanen & Patala, 2014; Nidumolu et al. 2009). On the other hand, Laukkanen and Patala (2014) suggest that the best way to counteract these challenges related to behavioral and social changes, is to improve

education about sustainability. This approach is supported by Bocken and Short (2016) who state that increasing awareness of customers about their consumption decisions is highly relevant to increase acceptance of new sustainable value propositions.

2. Creating a new organizational culture

Bonn and Fisher (2011) point out that for those firms that are looking for implementing sustainability in their BM, the organizational culture plays a fundamental role. However, establishing a sustainability-centered culture can be challenging since this involves a behavioral change of individuals. Adopting an SBM not only requires the commitment of decision-makers but also the engagement of all employees (Von Arx, 2015). Employee resistance can easily arise and evolve to a barrier for the transformation process. Crews (2010) suggests that this may occur because companies are continually rolling out new business approaches without providing sufficient time for adjustments and familiarization. Additionally, they proceed without explaining the reason for the change and the benefits associated with the transformation. Furthermore, Duarte (2015) suggests that the lack of knowledge about sustainability within the firms represents an obstacle to attain the transformation. Hence, it is problematic to develop a culture that supports sustainability when there is lack of clarity about what sustainability means and about what the implications for the firm are.

Possible actions to overcome this challenge

One of the first steps that companies consequently should implement in order to create a new culture around sustainability, is to redefine the organizational purpose and the vision at a strategic level (Muja et al. 2014). This means, that a company's values need to reflect the adoption of an SBM. As a result, this demonstrates that the purpose of the firm goes beyond making profits and further highlights that it is orientated to the welfare of the society (Von Arx, 2015). Moreover, organizational learning initiatives, in which every member of the organization gets involved, can help to overcome the lack of knowledge about sustainability (Crews, 2010). Finally, cultural changes should be boosted from the top to bottom which implies active involvement and strong commitment to sustainability issues from decision-makers (Bonn & Fisher, 2011; Stubbs & Cocklin, 2008).

3. Modify company's network

Most of the time, when companies adopt an SBM they need to modify some or all of their value propositions. Developing new products and services may require new raw materials, new production-cycles or new distribution channels. Hence, the relationship between the firm and its supplier, distributors and other players of the network may be altered (Bonn & Fisher, 2011). Resistance by these actors or the absence of agents that can satisfy the sustainable business practices of the firm can be a barrier to the adoption of an SBM.

Possible actions to overcome this challenge

According to Nidumolu et al. (2009) companies can encourage sustainability through the value chain, offering incentives to suppliers and other actors in the network, that accomplish the company's sustainability goals. Furthermore, companies should not only focus on developing knowledge about sustainability but they also need to diffuse the knowledge through the network. For instance, companies can share their knowledge with suppliers, using codes of conducts or guidelines about sustainability measuring and reporting (Laukkanen & Patala, 2014).

4. Align short-term and long-term goals

Adopting an SBM requires a long-term commitment which might result in a misalignment among short-term and long-term goals (Giunipero et al. 2012). Changing the perception in the time horizon can be challenging since economic efficiency is usually connected to short-term financial gains rather than long-term sustainability outcomes (Birkin et al. 2009; Bonn & Fisher, 2011).

Possible actions to overcome this challenge

Adopting a stakeholder perspective can help companies to move beyond short-term financial goals. Some managers assume that sustainable practices are in conflict with the economic principle and thereby shareholders value will be damaged (Bansal, 2002). However, as Hart and Milstein (2003) point out, the inclusion of stakeholder interests, both socially and environmentally, leads to increasing the reputation and legitimacy which are crucial to generating value to the shareholders. Thus, when adopting a stakeholder approach, company's strategies that require long-term focus can be justified

by stakeholder demands (Von Arx, 2015). This approach requires a clear identification of stakeholders, their interests and the actions that are in the scope of the company to fulfill their needs (Crews, 2010; Von Arx, 2015).

Birkin et al. (2009) suggest that one way to operationalize this is through the development of an assessment matrix that allows permanent adjustments and improvements. In addition, companies can implement new measurement and reporting systems that reflect the positive connection between social, environmental and financial components. New metrics that allow tracking sustainability progress will lead to new indicators for profitability beyond short-term profits (Bonn & Fisher, 2011; Laukkanen & Patala, 2014; Nidumolu et al. 2009; Muja et al. 2014).

5. Adapting profit model to balance costs associated with SBM

Transforming the value proposition, exploring new distribution channels and transforming the different elements of the BM to achieve sustainability goals can entail additional costs for companies in the short-term. This fact, in addition to the potential loss of customers in the event of a price increase can become a main barrier for adapting an SBM (Bocken & Short, 2016; Chkanikova & Mont, 2015; Giunipero et al. 2012).

Possible actions to overcome this challenge

Hart and Milstein (1999, 2003) state that companies can increase their sales and consequently balance costs associated with sustainability by meeting the needs of those in emerging and survival economies. This will not only increase company's profit but will also stimulate wealth creation. Moreover, technological developments to cutting waste and recapturing value from returned products can help companies to reduce costs and create new sources of income (Nidumolu et al. 2009). Also, as previously stated, the creation of new metrics will help companies to measure their environmental and social performance and consequently to understand how sustainability can be a driver to improve a firm's financial payoff (Hart & Milstein, 1999).

6. Multiple governmental regulations

Although regulatory factors have been a driver for sustainability, different demands by stakeholders around the world have led to overlapping and even contradictory regulations (Chkanikova & Mont, 2015; Giunipero et al. 2012). Lack of harmonization and constant changes in regulation which increase uncertainty represent two of the principal challenges for companies adopting an SBM (Laukkanen & Patala, 2014).

Possible actions to overcome this challenge

Nidumolu et al. (2009) state that one alternative for companies that are exposed to multiple regulations is to enforce and comply with the most rigorous one. Additionally, partnerships between firms and intergovernmental organizations to promote standardized regulations can help to appease the formation of contradictory rules among different countries (Laukkanen & Patala, 2014).

These identified challenges are inserted and distinguished from each other in the matrix below which differentiates between the external and internal challenges (see Figure 5). While the former refers to challenges that involve actors beyond the firm, the latter refers to those that are under control of the organization and involve internal agents. Moreover, following Laukkanen and Patala (2014), these challenges can be classified into three categories: Firstly, economic challenges include those that can affect the financial performance of the firm. Secondly, social and behavioral challenges refer to those that imply changes in behaviors, ideas and beliefs and finally, regulatory challenges that are usually out of the scope of the company and involve multiple governmental organizations. This resulting pattern and approximation allows to identify the scope of each challenge and consequently to identify their relationship with each of the SBM elements.

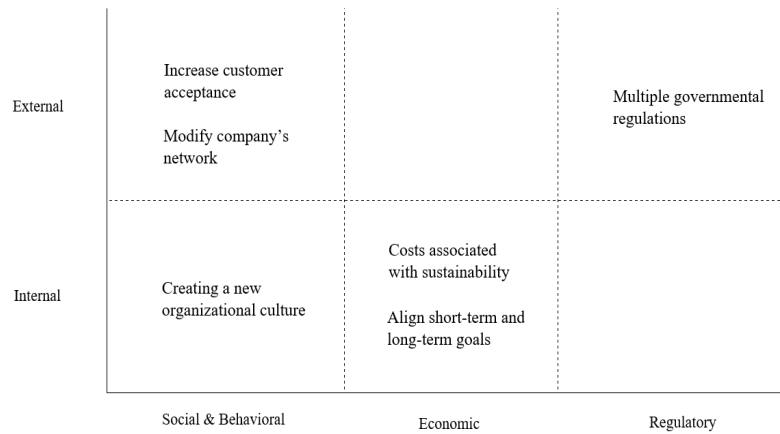


Figure 5 Classification of corporate challenges when adopting to an SBM

As mentioned above, these challenges originate from specific industries (Chkanikova & Mont, 2015) and countries (Duarte, 2015). Others have solely been identified from the managerial perspective and neglect a bottom-up approach (Crews, 2010). Yet other authors have focused on the challenges associated with sustainability and sustainable development in general and can consequently be regarded as a limitation as well (Bansal, 2002; Bocken & Short, 2016; Stubbs & Cocklin, 2008; Von Arx, 2015). Considering the aforementioned, it becomes apparent that a more holistic approach needs to be adopted. Moreover, since the solutions stated in the literature are generically exemplified, an in-depth understanding about specific initiatives is required. Table 1 summarizes the challenges and actions to overcome them as well as their relationship with each of the SBM elements. This theoretical framework will be used as a tool for designing the interviews. Moreover, it will serve as tool to gather empirical data to either confirm, further develop or contradict the findings in the literature.

Table 1. Theoretical Framework

SBM Element	Challenge	Possible actions to overcome this challenge
<p>Value proposition → <i>not solely product or service-based. Instead, rather specified by bi-dimensional value transfer between the company and its customers (Boons et al. 2013).</i></p>	<p>Increase customer acceptance</p>	<ul style="list-style-type: none"> ● Amplify knowledge about customer needs ● Promote sustainability among customers
<p>Value creation and value delivery → <i>pursues changes on organizational level about how firms create and deliver added value (Bocken et al. 2014)</i></p> <p>→ <i>to be regarded as part of a larger system whose key elements focus on customer interface and supply chain (Boons et al. 2013)</i></p> <p>→ <i>infrastructure should focus on encouraging sustainable activities as well as on resources among envisioned value and supply chain (e.g. by strategic partnerships) (Lüdeke-Freund, 2009)</i></p>	<p>Creating a new organizational culture</p>	<ul style="list-style-type: none"> ● Redefine organizational purpose at a strategic level ● Promote organizational learning ● Promote changes from top to bottom
	<p>Modify company's network</p>	<ul style="list-style-type: none"> ● Offer incentives to value chain actors ● Diffuse the knowledge through network (e.g. code of conducts, guidelines)
<p>Value capture → <i>distribution of costs and benefits with ideal of balanced costs/rewards relationship among involved actors; enables concreteness in terms</i></p>	<p>Align short-term and long-term goals</p>	<ul style="list-style-type: none"> ● Adopting a stakeholder perspective ● New measurement and reporting systems that include social and environmental components

<p><i>of defining value (Boons et al. 2012)</i></p> <p>→ <i>an SBM is augmented by concepts for the assessment of environmental and social BM value (Lüdeke-Freund, 2009).</i></p>	<p>Adapting profit model to balance costs associated with SBM</p>	<ul style="list-style-type: none"> ● Orientation toward new markets and customers ● Development of technologies orientated to reduce costs and create new sources of income ● New measurement and reporting systems that include social and environmental components
<p>Externally affecting the entire SBM components</p>		
<p>Multiple governmental regulations</p>	<ul style="list-style-type: none"> ● Enforce and comply with the most rigorous regulation ● Partnerships between firms and intergovernmental organization to promote standardized regulations 	

2.5 Chapter Summary

Converging the previous subchapters, the major components of the literature review will hereafter be summarized to provide a clear understanding. The concepts of sustainability and BM have increasingly gained relevance within the last years. While the BM concept has been catapulted by many practitioners and researchers, and thus enabled multiple analysis approaches, sustainability emerged in three different pressure waves and was influenced by diverse drivers. As such, environmental legislations and technological innovation have catalyzed the relevance of this topic among firms. As a result, both sustainability and BMs are widely recognized and are regarded as omnipresent and crucial in terms of successful corporate performance.

The increasing interest in sustainability has led to multiple changes on the market and the society. To respond to these new demands, companies are transforming their BM. As mentioned before, this process involves changes within all three elements of the BM: *value proposition*,

value creation and value delivery, and *value capture*. This transformation is manifested in SBMs. Representing an extended version of neoclassical business models, an SBM includes the triple bottom line approach in each of these elements. Hence, an SBM is characterized by incorporating stakeholders not just throughout the economical, but also along the environmental and social dimension. Accordingly, SBMs do not only focus on financial results, but also incorporate nature and society as major stakeholders. An SBM also diffuses sustainability among the whole value chain as well as within the company.

During the transformation process, companies might face challenges regarding the relationship with customers, suppliers and other stakeholders. Moreover, due to differences between short-term and long-term goals, firms can find it challenging to balance financial, environmental and social objectives. In addition, multiple (and partially overlapping) regulations across the world can discourage firms to implement radical changes. Hence, the process of transforming the BM toward an SBM requires companies to develop new capabilities and tackle numerous challenges. Finally, increasing the understanding about these challenges and the actions that companies can develop to overcome them, will facilitate this transition.

3 Methodology

The following chapter encompasses a precise description of the utilized methods among this thesis. Firstly, the research approach is introduced and followed by the explanation of the research design. Additionally, the acquisition of data and how it was consequently analyzed will be determined. Finally, in order to ensure the research quality, the applied tactics will be examined in terms of validity and reliability which includes presenting the concepts of the latter.

3.1 Research Approach

Clarifying the research approach, in this thesis a *qualitative case study research* has been conducted which represents one of the main research methodologies that can be utilized among business studies (Saunders et al. 2009).

As stated above, this thesis aims at clarifying challenges of companies transforming their current business to an SBM. Thus, a qualitative approach will better serve this objective since this methodology places emphasis on understanding the relationship between events during a period of time and aims at capturing the participants' perspectives about specific events (Bryman & Bell, 2015; Easterby-Smith et al. 2015). Hence, pursuing a qualitative approach, the challenges that companies have faced throughout the transformation can be properly represented.

In order to scientifically approximate a research, the increasingly popularity-gaining *abductive approach* is often executed and especially widespread among several case study-based research practices like the one among this thesis (Bryman & Bell, 2015). According to Alvesson and Sköldberg (2018), abduction is in this sense advocated as an innovative method that can be utilized for theory-based empirical researches. Portrayed on a broader picture, abduction is regarded as an inferential, logical and creative method which focuses on constructing new hypotheses and possibly theories that derive from the given data. In many cases, a surprising phenomenon or case is analyzed hypothesis of which will subsequently require further surveillance (Tavory & Timmermans, 2014).

Throughout this thesis an abductive research approach has been envisioned because the approximation, the framework and the cases presented in chapter four best match the research intentions. As the abductive approach includes components from both the deductive and the inductive approaches (Alvesson & Sköldbberg, 2018), the research practices could hence be appropriately applied to the case studies.

3.2 Research Design

3.2.1 Case study design

Although the term *research design* is often associated with quantitative research (Flick, 2007), well-defined research design is also highly relevant to guarantee high quality in qualitative research (Easterby-Smith et al. 2015). Research design can be described as the instrument for organizing and planning research to achieve research goals and ensure the quality of the results (Easterby-Smith et al. 2015; Flick, 2007). Considering the aim of this thesis - namely to gain knowledge about how firms overcome the challenges associated with the adoption of SBMs - the case study design was found as the most appropriate one to tackle this objective.

On the one hand, the case study design will assist in gaining understanding of the transformation process toward an SBM. This research design is particularly useful when researchers seek to acquire in-depth knowledge about complex topics, especially when the theory is limited and the context is highly relevant (Jans & Dittrich, 2008). Moreover, as Yin (2009) points out, the case study is the most suitable research design to answer “how” and “why” questions related to contemporary events. However, some authors have indicated great concern about the quality of case studies since external validity or generalization can be challenging to obtain through this research design (Bryman & Bell, 2015). Nevertheless, it is relevant to keep in mind that case studies aim to generate an intensive examination in order to expand theories rather than develop statistical generalization (Bryman & Bell, 2015; Yin, 2009).

To reduce the concerns about external validity, Yin (2009) suggests that researchers should prefer to conduct multiple case studies when possible. Hence, a multiple case study has been conducted instead of a single case study since evidence from more than one case increases credibility, is more convincing and allows direct replication. In addition, although multiple case

studies may require more resources and can be more time consuming, conclusions that arise from two cases or more are more powerful than from single case studies. This is because it is possible to find coincides and similarities between cases as well as pointing out differences (Yin, 2009).

3.2.2 Case study selection

Considering the purpose of this research, the selection of the cases was based on specific criteria that allowed a selection of companies that had moved from doing business as usual to adopting an SBM. As Stake (1995, cited in Bryman & Bell, 2015) points out, when selecting the cases, researchers should consider the cases that will provide the most effective learning. Thus, the selection of the cases for this thesis was based on specific criteria rather than on randomized sampling. Purposive sampling was followed, which is a non-probability form of sampling that seeks sample cases based on their relevance to resolve the research question (Bryman & Bell, 2015). Furthermore, representative cases have been envisioned since their objective is capturing and understanding the circumstances of a commonplace situation (Yin, 2009). For instance, big companies with more than 20 years on the market were primarily aimed at since those companies are more likely to have gone through the different waves of sustainability described by Elkington (2004). Consequently, companies with more extended experience on the market, are expected to have a pre-established BM that had to be modified in order to respond to the new demands linked to sustainability.

Moreover, when selecting the cases, the BM of different companies were assessed following the characteristics that Stubbs & Cocklin (2008) describe as typical for an SBM. For example, only companies that follow a triple bottom line approach to measure and report their performances were considered. Additionally, we looked for companies that consider the environment as a stakeholder and integrate the needs of all stakeholders in their BM. Finally, we considered firms in which sustainability has been promoted from the top and where leaders have shown clear commitment to this topic.

Based on the criteria above, IKEA and Tetra Pak were selected as representative cases for this research. These companies not only fulfill the aforementioned requisites, but they are also signatories of the UN Global Compact, and through their business they are contributing to achieving the SDGs. Hence, those companies can be considered as representative cases and conclusions drawn from this case study can be informative regarding the experiences of other

companies sharing similar characteristics. Chapter four will further describe the respective SBM of the selected companies.

3.3 Data Collection Method

In order to achieve the purpose of this thesis, a variety of literature about sustainability, business models and also about sustainable business models has been thoroughly examined. Additionally, as main source for the data collection among this thesis, two types of data have been included - primary and secondary data. The former was majorly collected via semi-structured interviews that have been conducted with employees at the respective companies. Including primary data is regarded as methodologically significant as the input originates directly from the source. Moreover, deviations or mistakes due to paraphrasing do not occur as often because the information is received without any indirections - in the case of semi-structured interviews this means directly from the interviewee to the interviewer. Primary data is essential when the regarded secondary data seems insufficient or inadequate (Kumar, 2008). In order to complement the data collection, secondary data has hence also been gathered. In this case the secondary data consists of annual reports, sustainability reports and corporate websites. The secondary data was assembled via desk research and was hence applied in formulating the literature review, company descriptions and the analysis of the SBMs of selected companies. However, only utilizing secondary data is also regarded as insufficient which is why an addition of primary data, especially throughout dissertations and theses, is required and expected in order to increase the validity and reliability of the thesis (Easterby-Smith et al. 2015).

According to Yin (2009) there are six sources of evidence that can be envisioned throughout case studies: *documentation*, *archival records*, *interviews*, *direct observations*, *participant observation* and *physical artifacts*. For this thesis however, the focal sources of evidence were focused on *documentation* and *interviews*. In general, the selected documentation can strengthen the arguments aiming at a certain aspect as they provide additional information (Miller et al. 1997). While *documentation* encompasses advantageous characters such as being stable, precise, informative and covering a broad variety of data that can repeatedly be reviewed, there are also disadvantages attached to it. For instance, when retrieving public documentation from diverse sources, the credibility and validity may be critically questioned because the utilized sources can be biased or subjective (Yin, 2009). Nevertheless, while this may

significantly influence the selection process, Johnston et al. (1999) state that a higher amount of objectivity can be attained when the researcher has no direct or indirect influence on the origin of the used documentation.

The second relevant source of evidence is manifested in *interviews* which can be further differentiated. While they represent one of the most relevant sources of case study information, the interviews for this thesis have been conceptualized to enable a guided conversation rather than a structured inquiry. Authors differentiate between in-depth interviews and focused interviews. According to Easterby-Smith et al. (2015) an in-depth interview is characterized as precisely probing and stimulating additional dimensions and insights. It aims at uncovering the interpretations which are associated with events, and pursues the idea of no existing objectivism throughout the interview that could enable a bias effect.

Within the framework of this thesis, several focused interviews have been conducted in which individual persons were interrogated for a limited time, e.g. for 30 min. Among focused interviews, neither the interviews nor the interviewees themselves were necessarily restricted to the questions within the interview guide. Instead, slight deviations, such as sub-questions or question that arose from the interviewee's response, were common. The focused interviews thus assume a conversational manner. Nevertheless, the interviewers structure the interview mostly among the generated interview guide (Yin, 2009).

The interviews for this thesis were conducted in person and encompassed a duration varying from 45 - 90 min. A purposive sampling was conducted to choose the interviewees. This means, that we have aimed at getting in contact with employees working within the sustainability, environmental or corporate social responsibility departments. After the first interview in each company, a snowballing sampling was conducted to gather additional interviews according to the topics of interests. Additionally, at one of the interviewed companies, some employees have been contacted face-to-face at a corporate event. These interviews followed a more structured approach since they were conducted to gather specific inputs about employee perspectives. The information about the interviewees are retrievable from table 2. According to Saunders et al. (2009), researchers can increase credibility by providing the interviewees with a list of themes or guide questions before the interview. However, sending an interview guide in advance can generate response bias (Bryman & Bell, 2015). Nevertheless, sustainability issues usually involve more than one department within the company as well as the challenges that have been explored in this research. In addition, SBMs might for some practitioners represent a

comparatively new topic. Therefore, we considered the advantages of providing a list of themes before the interview, superior to its disadvantages. Thus, in preparation for the interview, the interview guide (Appendix A) was sent to the interviewees in order to provide preparation time and hence receive more elaborate results. Moreover, the interview guide in Appendix B served as a guideline for the interviewers. Among this framework, sub-questions were included to support the interviewers to navigate in a certain thematic direction. Furthermore, to minimize the risk of response bias we asked follow-up questions and probing question (Easterby-Smith et al. 2015).

While notes were being taken throughout the interviews, the conversation was additionally recorded and subsequently transcribed. After the analysis was conducted, some additional questions were sent via email to the interviewees. In order to also provide them with clarity, we have offered to send them an interview summary. Accordingly, the interviewees were given the opportunity to contact us and clarify any possible misinterpretations.

<i>Table 2 Interviewees information</i>				
Date and Location	Type of Interview	Company	Interviewee	Position
13/04/2018 2:30 PM	Semi-structured	Tetra Pak	Julian Fox	Director for Sourcing and Manufacturing
17/05/2018 4:00 PM	Semi-structured	Tetra Pak	Erik Lindroth	Environment Director in the Nordics and the Baltics
20/04/2018 1:30 PM	Semi-structured	Tetra Pak	Francisco Ballas	Senior Specialist Sustainability
15/05/2018 1:00 PM	Semi-structured	IKEA	Daria Bondareva	Sustainability Compliance Reviewer
25/04/2018 9:30 AM	Structured interview	IKEA	Co-worker A Co-worker B	HR Specialist People and Culture Manager
25/04/2018 9:40 AM	Structured interview	IKEA	Co-worker C	Program Commercial Manager
25/04/2018 9:50 AM	Structured interview	IKEA	Co-worker D	SFO Specialist
25/04/2018 10:00 AM	Structured interview	IKEA	Co-worker E Co-worker F	Business Navigator Business Controller
25/04/2018 10:10 AM	Structured interview	IKEA	Co-worker G	Digital Content Optimization Specialist
25/04/2018 10:20 AM	Structured interview	IKEA	Co-worker H Co-worker I	Communication Manager Services Engineer Manager
25/04/2018 10:30 AM	Structured interview	IKEA	Co-worker J Co-worker K	HR Manager Procurement Manager within IKEA IMS

3.4 Data Analysis

Easterby-Smith et al. (2015) suggest that there are different ways to frame the data in order to make sense of it. Furthermore, they highlight that the selected approach will depend on the research question, research design and type of data collected. For this thesis, a theoretical framework was developed in chapter two in order to frame the data. Subsequently a template analysis approach was followed.

According to King (1998), the template analysis is based on developing codes that emerge from textual data and help researchers to organize the topics into categories and consequently facilitate their analysis. The author also suggests that codes need to be simple, descriptive and not require any judgment by the researcher. Easterby-Smith et al. (2015) state that template analysis is located between content analysis and grounded analysis. Thereby, one of the most significant advantages of using this approach is that codes can be predefined but also new codes can emerge as a result of the analysis. This is particularly important for this research since one of the aims is to identify new categories of challenges that have not been covered by the theory and therefore are not included in the initial framework. Thus, using the categories of the theoretical framework, some codes such as “customer”, “supplier”, “vision”, “KPI”, “stakeholder” or “SBM” were predefined. On the other hand, since this thesis follows a qualitative approach, new codes were identified during the interviews and consequently added to the template. In the same sense, codes that were found irrelevant after conducting the analysis, were eliminated.

3.5 Validity and Reliability

Unlike quantitative research, quality in qualitative research is more related to the way the research was conducted rather than focusing on the idea of standardization and control (Flick, 2007). Nevertheless, investigators following a qualitative approach also aim at their results being accurate and credible (Easterby-Smith et al. 2015). Validity and reliability are two criteria broadly accepted to judge the quality of research. Despite that, their meaning may vary according to the research design choice (Easterby-Smith et al. 2015; Yin, 2009). Hence, in this thesis reliability and validity will be analyzed in relation to the case study design.

On the one hand, reliability is concerned about the repeatability of operations of a case, which means that following the same procedures, another investigator will come to the same results (Bryman & Bell, 2015; Yin, 2009). Yin (2009, p. 45) suggests that to increase reliability, the researcher is required to “make as many steps as operational as possible.” Following this approach, criteria for the case selection were clearly presented in the section 3.2.2. Moreover, primary data was collected through semi-structured interviews following an interview guide that can be used as a reference by future researchers. Finally, codes for the template analysis emerged from the framework presented in chapter two.

On the other hand, results also need to be interpreted logically; they should be valid and offer a correct representation of what they are supposed to exemplify (Easterby-Smith et al. 2015; Stake, 1995). According to Yin (2009), the use of multiple sources of evidence helps to construct validity. Hence, to increase the validity of our research, both documents and interviews were utilized. Furthermore, to maintain the chain of evidence, all relevant documents employed during the research as well as valuable information of the interviews are appropriately cited. Also, to increase internal validity all interviews were transcribed and interviewees were asked for clarification when needed. Finally, as pointed out earlier in this chapter, this research does not aim for statistical generalization. Alternatively, it aims to increase theoretical generalization by using a multiple case study approach.

4 Results

The following chapter presents a brief description of companies as well as the main findings derived from the primary and secondary data. Considering that the transformation process from a traditional BM toward SBMs implies changes in different areas and may involve multiple actors, we organize the findings into different categories.

4.1 Tetra Pak

4.1.1 Company profile

Originating from the idea “a package should save more than it costs” Ruben Rausing started in 1943 to work on developing a package which provided high quality using as few materials as possible. In 1951, this idea was consolidated by the company Tetra Pak AB which was officially established in Lund, Sweden. With more than 60 years on the market and operations in more than 160 countries, Tetra Pak is nowadays recognized as the company leader in food processing and packaging worldwide (Tetra Pak, 2018a). The firm is part of the private group Tetra Laval and together with Sidel and DeLaval, they offer products in the categories of packaging, processing and services. In the last year, Tetra Laval reported sales of EUR 13.8 billion out of which EUR 11.4 billion were generated by Tetra Pak (Tetra Laval, 2017).

The mission of Tetra Pak situates customers in the core of the business, and it encourages innovation and responsible leadership as the most appropriate way to accomplish the company’s vision to “make food safe and available, everywhere” (Tetra Pak, 2018b). Moreover, customer needs act as drivers of innovation and sustainability. For instance, as a response to the customer’s demands the company launched the Tetra Rex® in 2014, the first completely renewable package. Moreover, it is produced from bio-based plastics and paperboard certified by the Forest Stewardship Council (FSC). Two years later, the firm presented the Tetra Brik® Aseptic 1,000 Edge with Bio-based LightCap™ 30 which obtained the highest Vinçotte certification (Tetra Pak, 2017).

Also, uniting approximately 24,000 employees from diverse cultures and backgrounds, Tetra Pak has defined four pairs of core values that shape the organizational culture: Customer Focus & Long-Term View, Quality & Innovation, Freedom & Responsibility, Partnership & Fun

(Tetra Pak, 2018c). Those values are also aligned to the strategy 2020 launched by the company in 2010 which focuses on capturing new opportunities in a continuously changing industry. As a result, the company defined growth, innovation, environmental excellence and performance as the pillars for achieving Tetra Pak's vision and to reach sustainable profitable growth (Tetra Laval, 2017).

4.1.2 Products, customers and consumers

Both primary and secondary data demonstrate how sustainability has been incorporated into the products, services and the way Tetra Pak conducts its business.

Tetra Pak has taken its brand motto "PROTECTS WHAT'S GOOD" as a milestone to develop its SBM. With this brand promise in mind, the firm goes beyond offering a sustainable value proposition that ensures the economic growth of the company. Tetra Pak also focuses its efforts on protecting people inside and outside the company and the planet (Tetra Laval, 2017; Tetra Pak, 2018d). Considering these three elements, the company has implemented a circular economy approach.

"We have a process which is normally some technology that transforms one thing into another and outcomes waste energy hopefully something valuable a product! [...] So, ideally the inputs should be renewable, and the transformation process should be as efficient as possible. And everything that comes out of the process should be recoverable in some way. And then in the ideal world, it becomes circular" (Julian Fox).

As explained by Julian Fox, the process of offering sustainable propositions starts at the product development department where they set different requirements to ensure that both the process and the product have a low environmental impact. This approach is known as Design for Environment (DfE) and aims at reducing the consumption of water and energy associated with product development (Tetra Pak, 2013).

Regarding the relationship with customers, Tetra Pak makes a distinction between customers and consumers. According to Julian Fox, Tetra Pak's *customers* are companies such as Nestlé, Coca-Cola or L'Oréal. By contrast, Tetra Pak regards the customers of these firms as *consumers*. Hence, in terms of the relationship with the customers, Julian Fox stated that these represent a driver for developing more sustainable products and services. Consequently, gaining

insights about customer needs is regarded as one of the priorities for the company. In this sense, Tetra Pak's Environment Director in the Nordics and the Baltics, Erik Lindroth, pointed out that the B2B perspective of Tetra Pak facilitates the communication toward the customers. In contrast to B2C, companies that may have limited opportunities to transmit their messages, Tetra Pak is in constant touch with its customers. Hence, the firm can explain what they are doing and receives continuous feedback from its clients.

One of the strategies developed by Tetra Pak is the use of surveys. Each year the firm conducts the Annual Relationship Customer Satisfaction survey and every two years the Environmental Survey. Both surveys are used to identify market trends, opportunities, threats and to acquire in-depth understanding of customer expectations about sustainability issues (Tetra Pak, 2018f). Moreover, as highlighted by Erik Lindroth, key account managers play a fundamental role in understanding customer expectations and needs.

“So, we have customer satisfaction surveys that we've done. But that's only one part. It's more important that you have key account manager. The sales guys who know their customers, who are close, who live their life. It's almost like...a good key account manager should be a customer's representative in the organization” (Erik Lindroth).

Furthermore, as explained by Erik Lindroth and Francisco Ballas (Senior Specialist Sustainability at Tetra Pak), the company is also carrying out campaigns and programs to educate consumers and increase their awareness about sustainability. Some of these initiatives are usually developed in partnership with NGOs and customers. Moreover, Tetra Pak also supports its customers to diffuse knowledge about sustainability among the final consumers.

“[...] our customers are Coca-Cola, Unilever., large international companies and they have their own communication campaigns, but we support them, so we give them the tools that they can use in communication as well, to make credible, and substantiated claims so they have the background to make those claims” (Francisco Ballas).

4.1.3 Value chain and organizational approach

The organizational culture and the relationship with suppliers resulted as recurrent aspects of the transformation process at Tetra Pak toward an SBM. For instance, the mission of the company reveals that sustainability is situated at the core of the business model:

“We believe in responsible industry leadership, creating profitable growth in harmony with environmental sustainability and good corporate citizenship” (Tetra Pak, 2018c).

From an internal perspective, employees are actively faced with the sustainability efforts demonstrated throughout the company. For instance, Tetra Pak takes the initiatives to integrate sustainability among the employees via internal magazines or news publications within its intranet. As Erik Lindroth stated, environmental excellence is integrated as one of four major pillars within Tetra Pak’s strategy. As such, sustainability is envisioned both from a bottom-up as well as from a top-down perspective. Hence, all co-workers including the CEO are evaluated on this criterion.

Besides this, the results showed that Tetra Pak further encourages the organizational culture by organizing compulsory trainings, some of which are kept general while others are specifically tailored for selected departments. By means of such events, not only the organizational culture but also values regarding sustainability are promoted and hence contribute to the value creation and delivery on Tetra Pak’s sustainability targets (Francisco Ballas).

The core values and the vision also promote sustainability, and the company has successfully transmitted them to the employees:

“We have 24.000 employees, so I can't speak for all of them, but I can just tell you about my own experience and I have been pleasantly surprised how many colleagues are very motivated by sustainability as a philosophy in the way of doing business. It's certainly something I've...I've worked in Italy and I've worked in Sweden and then I've traveled quite around our factory base when I was working in the supply chain and it really does seem to be important” (Julian Fox).

Similarly, Erik Lindroth highlighted that sustainability performance is nowadays regarded differently than a few decades ago. He underlined the relevance of working for a company that encompasses sustainability in its organizational culture:

“[...] it’s better to work for a company that has a big great job than just earning money. I think people in the company recognize that and I think many of the colleagues feel a certain level of pride working with a company that takes this very seriously”
(Erik Lindroth).

According to the interviewees, the relationship with suppliers is highly relevant in order to achieve the long-term ambition of Tetra Pak to use 100% renewable materials in all their packages. Thus, the company has established a Business Code of Conduct that includes the social, environmental, ethical and labor-related conditions that suppliers are expected to comply with (Tetra Pak, 2017; Tetra Pak, 2018e). Since the company uses several raw materials in large quantities, Tetra Pak follows diverse strategies regarding each of these materials. Especially as Tetra Pak has a limited number of key suppliers, the company puts a lot of focus on these. Francisco Ballas further elaborated this:

“So, we have this mutual dependability and it’s not like we’re buying pants or pencils or things like that we could just change. I mean we want continuous improvements, that’s the key. So even though a supplier would be below the level we want, we will work with them to get them to that level. And when the suppliers are at that level, we will lift the stick adapting to new requirements and expectation. So, we would ask for new requirements in the future so we work based on continuous improvements”.

Moreover, as explained by Erik Lindroth, sustainability requires a value chain approach that starts with consumers demanding more sustainable products and finishes with suppliers adapting their processes to fulfill those demands. Thus, as highlighted by the interviewees, Tetra Pak attempts to diffuse sustainability among the whole value chain.

“Also, we were one of the founder members of the Aluminum Stewardship Initiative and they released their first performance standard last year, and we are going to become certified this year. We have asked all of our aluminum suppliers to do the same”

4.1.4 Stakeholder perspective and long-term philosophy

When it comes to how Tetra Pak captures value from its SBM, we found that taking a stakeholder perspective and including alternatives ways to measure performance is particularly relevant. One example is the materiality assessment created in 2016. As Julian Fox stated, this helps the firm to determine the actions that Tetra Pak can implement in order to have a more positive impact on the environment, society and business.

“Like a few, we’ve done a materiality assessment and decided what we would like to focus on. The things that we’ve decided not to drive a particular focus on, it is not that we are saying are unimportant. It’s either that they’re already good enough or actually the things that are prioritized would make a bigger difference”.

Erik Lindroth further highlighted the materiality assessment and stated that a prioritization needs to take place when trying to achieve a better understanding, responsibility and opportunity. Resulting in a meta-stakeholder-analysis, the company has extended its contemporary stakeholder analysis in a way that consumers are included as well.

“[...] you can’t work on everything. So...therefore you need to prioritize the ones where you have a big impact, or you can have a potential positive contribution”.

In addition to the materiality assessment, the company utilizes diverse KPIs to measure its performance in terms of social and environmental impacts. As explained by Julian Fox, two software programs are used to collect and analyze the data. Subsequently, the information is organized in a global dashboard to set targets in each region and to follow the firm’s performance in each cluster.

“We have a software called SoFi from ThinkStep [...] we collect a huge amount of data to be able to understand where we are and to calculate our impact...climate impact and so on”.

“We do have other data collection with SAP R/3, risk data and things, for example if you want to know how much electrical energy we trace everything through [...]”.

As we found out, measuring the social aspect of sustainability is regarded as more difficult by Tetra Pak. In order to tackle the measurement of this, Francisco Ballas highlighted the relevance of KPI and homogeneity.

“[...] it’s good with the standardization and the KPIs that you can find in the GRI for example. So as much as you can make them homogenous, it’s better for us and the industry in general”.

Another salient aspect that stands out from the interviews are the costs associated with implementing an SBM. For instance, Julian Fox argued that developing technologies to provide more sustainable products requires significant investments. Erik Lindroth subjoined by stating that many sustainability efforts in terms of investing in more sustainable resources and materials will be more expensive:

“For example, when we introduced FSC labeling, FSC certified packaging material 10-12 years ago, it was more expensive than non-FSC board. Today it’s virtually the same price but at that time you had to pay more. Same goes for plant-based plastics, renewable plastics that is made from sugar cane instead of oil. As raw material that’s more expensive than oil today. So, you have price differences as well in the materials that you buy”.

He regarded it as an upfront investment that aims at balancing out the initial negative cash flow. As stated by him, doing so will result in increasing attractiveness, competitiveness and profitability in the long-run. However, having his background as Environment Director, he underlined the continuative nature of sustainability and added up that it requires time and cannot be achieved in short time:

“So, I think it’s a continuous thing. I don’t think sustainability is something you pay and then you’re done. I think, sustainability to me is, it should be a journey, it’s a step by step process, you don’t become sustainable, you become increasingly sustainable by improving your performance” (Erik Lindroth).

As a result of the long-term path philosophy in Tetra Pak, those costs are regarded as long-term investments rather than expenses.

“I think it’s important to see sustainability as in investment – just like anything else. Meaning that you have to put money on the table now to get a potential future benefit” (Erik Lindroth).

Enhancing the long-term philosophy of the company, the ownership structure may partially explain why it has been relatively easy for Tetra Pak move beyond short-term financial goals and to adopt a long-term perspective.

“Typically, privately held companies are prepared to make decisions with the long-term in mind. This contrasts with publicly traded companies where it is commonplace that a lot of focus is given to managing business performance in the short-term, usually quarterly. Execution of sustainability strategies normally requires investments for the long-term” (Julian Fox).

As Senior Specialist Sustainability, Francisco Ballas confirmed this statement and clarified the differentiation between private and public companies in this regard:

“Of course, it’s also helping that we’re a private company, so we have a long-term ambition compared to stock-based companies and then it’s a lot about the customer as well”.

Additionally, Erik Lindroth punctuated the significance of Tetra Pak’s long-term perspective:

“I think it helps to get a long-term perspective. It gives you that further horizon as a company”.

4.1.5 Partnerships

As mentioned above, Tetra Pak is one of the founding members of the Aluminum Stewardship Initiative (ASI) and collaborates closely with the FSC. Furthermore, the firm is a member of the Supplier Ethical Data Exchange (Sedex) and EcoVadis. The relevance of being part of these associates and obtaining third-party certifications was a recurrent topic during the interviews.

“We prefer to have a third-party verification rather than we say that they are good. So, we are also audited by our customers. We are members of Sedex, so we have ethical trade audits on our factories. We do the same for our suppliers” (Julian Fox).

Moreover, a prevailing view among the interviewees was the need to partner with NGOs, intergovernmental organizations and other companies. For instance, Erik Lindroth pointed out that NGOs such as WWF have become valuable and credible partners and the relationship with them supports Tetra Pak’s steady improvements. Moreover, he highlighted how the relationship

between companies and NGOs has changed in order to respond more efficiently to sustainability demands.

“[...] they realized that you don't work against industry, you have to work with industry, if you want to have a change in a sustainable direction you need to have industry as part of that journey and the only way to do it is to be working together, and to be demanding, and to push industry [...]”.

Another example demonstrating the relevance of partnerships is related to regulatory threats. To deal with regulations that are risky to more than one company, interviewees agreed that it is more efficient to develop initiatives as an industry instead of acting independently. Moreover, as suggested by Erik Lindroth, taking a system approach helps companies to achieve their sustainability goals.

“We need to work in a smart way to engage the industry, to engage technology suppliers, to engage plastic manufacturers or plastic recyclers and to get it into an industrial model, or business model that becomes self-sustaining”.

In addition, in order to partner with NGOs and other companies, Tetra Pak is aligned with global initiatives such as the Principles of the Global Compact and the United Nations Sustainable Development Goals (Tetra Pak, 2017). The firm has also signed the Paris Pledge for Action at COP21 and it has joined the Circular Economy 100 to continue contributing to a sustainable future (Tetra Laval, 2017).

4.1.6 Regulation

Regarding the effect of regulation on the SBM, two eminent topics among the interviewees emerged. On the one hand, since Tetra Pak is a multinational company it is challenging to comply with different regulations, even if they have similar purposes. As a result, one of the initiatives taken by the company was the development of global standards:

“[...] To give an example: air emissions [...] we have different legislations in every territory and maybe the ambition of the legislation is always the same but the way is phrased, the measurement methods, I mean everything is different and we decided last year [...] that we as a company should have a standard, a global standard on it in addition to complying with local legislation. And we tried to make our internal

standard meet the most severe case globally. So, we do that for things that we see are really hot topics” (Julian Fox).

On the same regard, Francisco Ballas argued that adopting standards such as the FSC or GRI reporting initiatives, helps to harmonize expectations about sustainability. On the other hand, excessive regulations are also considered as a challenge for the company. For example, as illustrated by Julian Fox, one country was promoting oxi-biodegradability for plastics. However, due to product quality-related reasons this is not compatible with food. In that specific case, the company collaborated with other firms to obtain an exclusion for food packaging. Thus, advocacy is highly relevant as well as monitoring legislation and assessing its impact on the business. Furthermore, Erik Lindroth highlighted the importance of creating and maintaining favorable relationships with legislators and authorities, and providing them with accurate information, so they can make conscious decisions. Enhancing this argument, Francisco Ballas pointed out the relevance of having a continuous dialogue with the authorities:

“[...] When something related to sustainability comes into the regulatory area then we have a constructive dialogue with the authorities. It is normal to discuss what can be done with reasonable efforts’ or with available technology...because they don’t want to impose a legislation that nobody can comply with”.

Furthermore, Julian Fox clarified that although some regulations can initially be seen as excessive, they also can become opportunities to improve processes and develop new products:

“You can look it as a barrier or as a stimulus for innovation, I mean we are a technological company at heart, and all of these things represent opportunities to make things better if they represent an operational pay for it. Business in the competition becomes very fat and lazy; it needs pressure to do well”.

4.2 IKEA

4.2.1 Company profile

While Ingvar Kamprad, founder of IKEA, first developed initial traits of a business by transporting goods among his neighborhood by bike, he already at young age envisioned developing his own business (IKEA Foundation, 2018). Originating from the Southern Swedish province Småland, IKEA was founded in 1943 and was originally a mail-order business that sold small merchandise articles such as pencils and postcards. While his business was still in its beginnings, it would evolve to one of the world's biggest corporations.

In terms of corporate structure, it is highly relevant to differentiate between Inter IKEA Systems B.V. (also labeled Inter IKEA) and Ingka Holding B.V (more frequently named IKEA Group). While the former owns both the IKEA concept as well as the legal rights to operate as worldwide franchisor, the latter is one of the 11 franchisees and also the most representative one (IKEA Group, 2017b; Inter IKEA Group, 2017). This thesis analyses the IKEA Group which, as retrievable from figure 6, is owned by the Stichting Ingka Foundation. One of the more salient characteristics of IKEA derived from its ownership structure is that the IKEA Foundation decides in which way funds can be utilized. These can either be reinvested, and hence stay within the IKEA Group, or they conduce to charitable purposes (IKEA Group, 2017b). This was corroborated by the Sustainability Compliance Reviewer, Daria Bondareva, who pointed out:

“... [it] is IKEA foundation that gets the profits and then they can decide where they want to spend the profit. Lot of the profit is going to charity”.

Stichting Ingka Foundation Owners of the IKEA Group			Charity Stichting IKEA Foundation		
			Management of financial assets Stichting IMAS Foundation		
The IKEA Group (Ingka Holding B.V. and its controlled entities)			Chairman of the supervisory board: Lars-Johan Jarnheimer President and CEO: Jesper Brodin		
Centres	Retail	Customer Fulfilment	Group Functions		
			Commercial	IKEA Business Solutions	Business Navigation & Finance
			Corporate Communications	Customer Experience	Corporate Finance, Tax & Treasury
			People & Culture	Expansion	Legal & Governance
			Marketing & Com&In		Property
Sustainability		Risk Management & Compliance			
			Service Functions		
			Financial Asset Management		

Figure 6 IKEA Group Structure. Adopted from Inter IKEA (2018a)

By maintaining continuous innovation and simplicity, IKEA is nowadays known as the world’s largest furniture retailer (Business Insider, 2016). As of 2017, the IKEA Group encompasses 355 stores in 29 countries around the world and employs 149,000 employees (IKEA Group, 2017b). So far, IKEA has differentiated its current international network between the geographical regions Europe, North America, Asia, Russia (as its own entity) and Australia, and focuses on maintaining its market position, respectively. However, recent publications state that IKEA is planning its market entries in South America, network expansion in Southeast Asia and store launches within the next 5 years. Among these, a primary focus will be set on Chile, Colombia, Mexico and Peru, as well as on Vietnam and the Philippines. In terms of IKEA’s internationalization, it aims at opening not just one, but two or three markets in South America as it represents an entirely new market. In doing so, IKEA will be able to take advantage of supply chain and production benefits (Bloomberg, 2017).

Following its corporate vision throughout all departments, IKEA envisions “to create a better everyday life for the many people” and follows the idea of being able to provide numerous furnishing products at low prices for the majority of people (IKEA Group, 2017a).

4.2.2 Offers, customers and sustainability approach

Extractable from the primary and secondary data, when transforming its BM, IKEA changed the relationship with customers and the products as well as the way how the company operates in order to incorporate sustainability.

Originating from the interview with Daria Bondareva, IKEA highly prioritizes both environmental and social issues. As a result, the company has developed its corporate strategy focused not only on economic, but also on environmental and social dimensions. This approach is observable in both production processes and the products themselves. For instance, IKEA utilizes 1% of the globally produced wood and cotton, respectively. Additionally, a high amount of energy is deployed throughout corporate operations which is why the company aims at balancing the amount of utilized energy with producing the same amount of green energy. Hence, these operations and processes are envisioned to become sustainable by 2020 by producing 100% renewable energies.

Regarding products, IKEA offers additional value to its customers by implementing what they call *Democratic Design*. Such a design characterizes the product development by implementing the following five criteria: function, form, low price, sustainability and quality. IKEA regards these criteria as crucial because it guarantees the company to pursue its intention of being able to offer high standards at low costs. For instance, IKEA ensures not only sustainability but also transport efficiency and the use of recycled materials (IKEA Group, 2017a).

Following this approach, the company is promoting products with a low environmental impact. As explained by Daria Bondareva, IKEA switched from incandescent bulbs to LED bulbs. Compared to the antecedently deployed ones, LED bulbs require 85% less energy making the use of them consequently more sustainable. Portrayed on a long-term perspective, Daria Bondareva additionally stated that these bulbs will be cheaper in the long run as they last for up to 20 years (compared to incandescent bulbs lasting 1-2 years).

Following a closer approach to material reusability, Daria Bondareva stated explicit examples made of the plastic foil that is usually utilized for packaging. For instance,

- the TOMAT spray bottle is composed of 50% waste,
- the KUNGSBACKA kitchen fronts are made of recycled plastic bottles, and
- the ODGER chair consists of renewable wood and plastic.

In addition, IKEA has a focus on its food sector. Daria Bondareva highlighted the company's goal of encouraging people to consume dishes with a lower environmental footprint and hence minimizing its ecological impact. To do so, IKEA promotes urban farming. In addition, it employs certified products throughout its restaurants. For instance, its sea food is certified by the Marine Stewardship Council and its coffee received certification by UTZ.

Furthermore, IKEA aims at promoting sustainability among its customers. One example is the project *Sustainable Life At Home* per which the product offering endeavors encouraging people to live more sustainably, minimize waste, diminish water use and facilitate saving energy.

"[...] people know they should save water and IKEA can offer water saving taps, people want to save energy and IKEA can offer LED bulbs. People know that they should recycle and IKEA can make it easier to do, you can inspire people to live in a more sustainable way at home" (Daria Bondareva).

In addition, Daria Bondareva explained that specific projects are developed in each country to promote these products. For example, projects such as *Live Lagom* or *Sustainable Living Project* are taking place in Canada, UK and Ireland. Furthermore, in 2017 IKEA enabled 2,500 school children insights into its sustainability efforts in Sweden thanks to a project with the Swedish Society for Nature Conservation. Similarly, IKEA's customers in Japan can sell back their furniture preconditioned that it is in good state. In doing so, IKEA promotes a circular economy approach (IKEA Group, 2018).

Nevertheless, Daria Bondareva stated that although IKEA actively promotes sustainable living, there is still a gap between the communicated message and what customers receive and hence implement. In fact, she explicated that the perceptions regarding the company's sustainability efforts are weak and do hence not align with IKEA's intention.

4.2.3 Relationship with employees and suppliers

Regarding IKEA's corporate network, supplier relations are especially important. In order to define accurate suppliers, IKEA has implemented its own supplier code of conduct (namely IWAY) which encompasses 94 audit questions. Being a precondition for collaborating with IKEA, IWAY follows certain guidelines in order to antagonize child labor, discrimination and severe environmental pollution. Additionally, it ensures fair working conditions (e.g. receiving at least minimum wage) and provides health and safety (e.g. fire prevention) for local

employees. Furthermore, IWAY audits are extended to indirect suppliers such as companies related to logistics, security and cleaning and waste management. As a result, IKEA obtains valuable information of its suppliers and is enabled to assess what kind of impact they have. Suppliers performing severe violations in regard to the IWAY framework are suspended. However, if a supplier underperforms but still demonstrates eager contributions regarding the requirements and ambitions to improve corporate performance, IKEA continues its collaboration with this specific supplier. Regarding employee perception, this has received positive reactions:

“And this is what I find very inspiring about the work that we do with IWAY. We don’t want to just cut off the suppliers because they may be not good enough straight away, that’s why some of the audits are done before the contract is signed. So, you can bring suppliers up to speed by the time the supplier starts the delivery. And this is what I like about IKEA: That they want to develop their interest, they want to help the countries that they work with” (Daria Bondareva).

When asked about the reaction of the suppliers about IWAY and other similar initiatives, Daria Bondareva, as Sustainability Compliance Reviewer, stated that reactions differ among actors in the supply chain.

“[...] it depends on how big the company is and how much of its business is directly linked to IKEA, because if IKEA is a big client then, of course, it is very important for them to continue the business with IKEA and there is less resistance”.

In terms of organizational culture, both primary and secondary data emphasize that diversity is incorporated throughout the entire company. As a result, 56% of the employees are female, and regarding the managers women take in 48%. Additionally, IKEA strongly underlines efforts toward human rights and against the discrimination of certain ethnicities and sexual orientation. These values are equally transferred to the suppliers in order to uniformly promote the same values. Moreover, we encountered that the majority of employees have a positive impression of IKEA’s sustainability efforts.

“I’m quite proud over the fact that we’re working so hard with our cotton and especially like water reduction etc. and also this house is quite amazing so, yes, I perceive it as something that is quite important to us as a company” (Co-worker G).

Referring to the structured interviews conducted at IKEA Hubhult in Malmö, all interviewees not only stated their awareness about IKEA's sustainability efforts, but also mentioned different approaches that have been executed. For instance:

"I know that we are making quite a lot of efforts in becoming self-sustainable. When it comes to the electricity we have our wind farms, and solar panels, and we try to also to sell the solar panels to our customers, so they can become more energy-efficient" (Co-worker A).

Enhancing the social aspect, another interviewee highlighted:

"[...] they're doing controls in their entities in Asia that we don't use child labor and that conditions are well...better, or well... more human" (Co-worker E).

Further enriching the awareness of IKEA's sustainability efforts, another interviewee amplified his awareness about financially oriented sustainability efforts:

"[...] And of course on the other side of our business we have, in a wider IKEA world you could say, huge amounts of investments in wind farms as well so, so for sustainability electricity to the wider people we definitely contribute there, and also the building that we're standing in, Hubhult, I believe votes for of the most sustainable building in the Nordics this year and it's quite self-sufficient in the way it generates its own energy [...]" (Co-worker C).

Moreover, when asked about how they receive information concerning these sustainability efforts, the interviewees named a number of sources such as intranet, presentations and posters. As co-worker D pointed out the company uses a combination of these to communicate sustainability initiatives:

"We do get it from talks here so every now and then we get some kind of awareness presentation but at the same time we also work on the websites as well, so I get to see some information there, too".

Co-worker F enhanced this by stating that IKEA communicates its sustainability efforts:

" [...] sometimes via the internet and sometimes they showcase via posters or they display something [...]".

Other interviewees highlighted that they receive information through co-workers working on the sustainability department. Although, most of the interviewees affirmed being aware of IKEA's sustainability efforts, the majority of them considered the amount of sustainability throughout their own positions as potentially improvable.

4.2.4 Sustainability investments and long-term perspective

Daria Bondareva stated that value capture encompasses orienting the sales in a way that all stakeholders are positively affected - she hence amplified that it is accordingly not solely about financials, but also about positively impacting society.

Based on the IKEA Group (2017b) we found out that by means of long-term investments IKEA has initiated a financial asset management strategy in FY17. Standing out as one of the major dimensions of this strategy, renewable energy is accentuated by investments in wind turbines and solar panels.

IKEA demonstrates several investments throughout its sectors. For instance, during FY17, EUR 3.1 billion have been invested in stores, shopping centers, distribution network, customer fulfillment, and renewable energy and responsible forestry (IKEA Group, 2017b). Additionally, investments have been made in order to reduce waste throughout the operations. For instance, by aids of bailing machines for cartons, the 500,000 tons of waste produced in 2015 were recycled up to 88%. Those investments are supported by the long-term perspective that has been adopted by IKEA.

“We have the freedom and financial strength to invest over the long-term, and with purpose, in our own future. We are investing in our core business and our expansion, whilst securing the contribution we make to people and planet by investing in renewable resources like the sun, wind and responsibly grown forest” (IKEA Group, 2017a).

According to the conducted interviews and analyzed secondary data, establishing new ways to create value is one of IKEA's main areas of interest. For instance, by implementing the above-mentioned KUNGSBACKA, the company not only expands the life cycle of its products (e.g. plastic-based ones), but also does this entail financial savings as the fundamental material does not have to be produced from scratch. (IKEA Group, 2017a).

4.2.5 Partnerships

During the interviews conducted at IKEA, the relevance of partnership has been highlighted several times. For instance, Daria Bondareva stated that IKEA joined Electrical Vehicles 100 (EV 100) with the objective to become 100% electric by 2025. Additionally, the company has an NGO-partnership with WWF named Better Cotton Initiative (BCI). This partnership is founded on the idea that 100% of produced cotton is treated with less pesticides and that more sustainable irrigation system is provided. Furthermore, IKEA has joined a cooperation with Save the Children and UNICEF both of which campaign for children's rights, education, health, freedom. Partnerships with UNDP and UNICEF commit to human rights, empowerment of women and HIV/AIDS. The partnership with UNHCR promotes support for refugees and host communities throughout the world (Inter IKEA Group, 2018b; UNHCR, 2018b).

5 Analysis and Discussion

The following chapter will discuss the main findings derived from chapter four. Although the results of each company were presented individually, the following encompasses both entities in order to identify differences and amplify similarities. Firstly, the main characteristics of the companies' SBMs will be analyzed as well as the archetypes adopted by the firms. Subsequently, using the framework developed in chapter two, we will analyze the challenges associated with the transformation toward an SBM and the actions that these companies have taken to overcome them. Table 3 categorizes the main findings into each of the elements of the SBM for both companies. While the findings are hence converged to a broad value characteristics perspective of the two companies, the subsequent analysis will particularize and interpret the findings, and enable a cross-company analysis. In addition, this section will also compare empirical data with the theoretical findings derived from the literature review.

Table 3 Classification of converged findings

	Tetra Pak	IKEA
Value Proposition	<ul style="list-style-type: none"> ● Development of more sustainable products ● Customers as drivers of sustainability ● Education campaigns focus on consumers ● Focus on reusability ● B2B ● Surveys and sales managers 	<ul style="list-style-type: none"> ● New product development ● Focus on reusability ● Encouragement of sustainable living ● Communication problems with customers ● B2C
Value Creation and Delivery	<ul style="list-style-type: none"> ● Employee training ● Mission, vision and values supporting sustainability ● Value chain approach ● Dependability on suppliers ● Codes of conduct 	<ul style="list-style-type: none"> ● Recurrent (positive) employee awareness about sustainability ● Internal networking ● Lack of integration of sustainability in daily work ● IWAY code of conduct ● Size of suppliers and dependability

Value Capture	<ul style="list-style-type: none"> ● Long-term philosophy ● Ownership structure ● Stakeholder perspective ● Multiple performance measures 	<ul style="list-style-type: none"> ● Long-term investments ● Create value from waste ● Ownership structure
Entire SBM	<ul style="list-style-type: none"> ● Partnerships with NGOs ● Internal standards ● Advocacy and participation ● Alignment with global initiatives 	<ul style="list-style-type: none"> ● Partnerships with NGOs ● Alignment with global initiatives

5.1 SBMs

Regarding the analysis of the SBM, we encountered that all the characteristics described by Stubbs and Cocklin (2008) are presented as fundamental parts on the BM of both companies. For instance, regarding the performance measurement system, both companies have adopted diverse KPIs to measure the social and environmental impact of their operations. This implies that the firms go beyond achieving economic success and have integrated a TBL approach. Moreover, both firms include nature as stakeholder and several initiatives are in place to minimize the ecological impact of their businesses. Another important aspect is related to the stakeholder perspective adopted by both companies. As explained later in this chapter, different strategies have been developed to identify and prioritize the needs and interest of stakeholders.

In accordance with Stubbs and Cocklin's (2008) statements, we found that sustainability is promoted throughout the whole internal organizational structure, starting from the leaders at the top of the organization to the employees in the base of the corporate hierarchy. Furthermore, reinforcing the argument that sustainability needs to be approached from a system perspective, both Ikea and Tetra Pak regard partnerships as highly relevant to achieve sustainability goals. Regarding the archetypes adopted by the firms, the empirical findings confirm Bocken et al.'s (2014) argument that more archetypes can be combined in order to reach greater results. IKEA and Tetra Pak SBMs are mainly related to the following technological archetypes: maximize material and energy efficiency, create value from waste and substitute with renewable and natural processes. Although the technological archetypes are predominant, social projects and changes in the organizational structure presented in the previous section have also been

developed as a result of the transformation process from a traditional BM to SBM.

5.2 Challenges and actions

Aligned with the theoretical background, the results emerging from both cases confirmed that the process of transforming the BM toward an SBM implies multiple challenges. The challenges and actions have been classified into each SBM element using the Table 3 presented at the beginning of this chapter. The case findings support the categories in the framework developed in chapter two. However, some adjustments are required in terms of how the challenges are perceived by the firms and how specific characteristics of the companies can alter the relevance of the challenge. Within the required actions to overcome the challenges, the empirical data has led to confirm several of the actions stated by the reviewed literature. Also, based on the case findings specific examples of new categories will be included in the final framework.

5.2.1 Value Proposition

As extractable from the literature, value proposition in an SBM demands integrating sustainability as a major part of the products and services that companies deliver to customers. Considering this we found that the main challenge for companies transforming their BM is related to the relationship with the customers and the communication process.

- **Increase customer acceptance and improving communication to the customer**

In order to accelerate customer acceptance regarding the executed sustainability efforts, customers need to be sensitized in several ways. Based on the observed cases, and contradictory to the reviewed literature, financial components were not presented as the major challenge in terms of the relationship between the companies and their customers. Instead, the main challenge was perceivable within communication. Customers face a significant amount of input from companies and are torpedoed with information. This information overflow impedes companies from accurately demonstrating their sustainability efforts. Hence, it can be challenging to find the best way to balance sustainability efforts and value proposition with information capacities among customers.

Considering that both companies have different corporate structural layouts to operate, we found that a differentiation between B2B and B2C businesses may be advantageous. For instance, IKEA follows a B2C approach and stated that they are facing quantitatively more problems for communicating their sustainability efforts. Tetra Pak instead operates as a B2B company and communication with customers appears to be more fluent. In fact, customers are regarded as drivers for implementing more sustainable value propositions. Hence, the challenge for B2B companies is related to consumers and how they can help their customers in increasing awareness of sustainability in final consumers.

Actions to overcome this challenge

Consistent with the literature, we found that knowledge about customer needs is essential to overcome this challenge. According to these companies, one way to excel in this is through surveys that are useful not only to gain additional insights about customer needs but also to identify trends on the market. Moreover, an unexpected approach to counteract these challenges is related to the adoption of sustainability as a selling argument and in this way spreading knowledge about the advantages of sustainable value propositions. This approach requires sales managers and key account managers to adopt the role of sustainability champions.

When it comes to increasing awareness of sustainability among customers and consumers, we found that both companies are committed to spreading knowledge about sustainability issues. One interesting finding is that both companies are promoting education campaigns in schools. It can therefore be assumed that the major emphasis is not only narrowed down on current customers, but extends to future generations. In addition, the case results suggest that both companies are using specific programs among customers and consumers to increase their awareness about their consumption decisions (e.g. Project Lagom) which is consistent with the approach suggested by Bocken and Short's (2016) and Laukkanen and Patala (2014).

5.2.2 Value Creation and Value Delivery

Readopting from above, value creation and value delivery are one of the main components of an SBM. Hence, within this framework, organizational culture and relationship with suppliers need to be aligned with efforts toward sustainability. Both of these aspects stood out as crucial to the transformation process toward an SBM.

- **Creating a new organizational culture**

The empirical findings as well as literature consider the organizational culture as a fundamental aspect during the transformation process. Both companies realized the importance of integrating sustainability in the organizational culture which can for instance be observed in the inclusion of sustainability as part of their mission, vision and values. However, the case findings do not support the arguments of Crews (2010), who states that employee resistance is one of the challenges that companies may face when transforming their BM. A possible explanation for this may be the communication campaigns conducted within the firms. This finding is aligned with Duarte's (2015) suggestions about the relevance of communication processes to tackle the lack of knowledge about sustainability. On the other hand, we found that a big challenge that has not been covered by previous academic works is the integration of sustainability in the daily work of employees. One of the cases revealed that even though the employees are aware of the relevance of sustainability in the organization, they don't think it is really integrated in their daily tasks. Hence, a structural deficit in terms of sustainability implementation has been detected and it can be considered an additional challenge.

Actions to overcome this challenge

In accordance with Muja et al.'s (2014) we found that both companies have integrated sustainability as part of its mission, vision and core values. Thus, it can be suggested that redefining the organizational purpose of the firm at a strategic level is fundamental to create an organizational culture around sustainability.

As mentioned above, neither IKEA nor Tetra Pak experienced resistance by employees during the transformation process. Considering that internal communication was highlighted as a crucial factor during their transformation, it can be suggested that firms facing employee resistance can overcome this challenge by improving the communication process. Both companies utilize multiple channels to communicate sustainability efforts among their co-

workers. One of the most popular alternatives was the use of the intranet which is visited regularly by the employees - it therefore becomes an efficient channel of communication. In addition, voluntary and mandatory trainings have been used to promote sustainability within the firms.

Resulting from gained impressions in local subsidiaries that have been inspected throughout the data collection period, another action that can be implemented to further promote an organizational culture around sustainability is the use of the work spaces. As additionally corroborated by the interviews, these work spaces subserve as a reminder of the relevance of sustainability and encourage employees and visitors to familiarize themselves with sustainability. For instance, both companies utilize green energy (e.g. solar panels) in their offices. Providing further examples, waste containers for recycling purposes are available at multiple locations and the lights turn off automatically when the rooms are empty.

- **Modify company's network**

Regarding the relationship between the company and its suppliers, the case results support the theoretical findings about the importance of extending sustainability throughout the value chain and therefore modifying the relationship with the company's network. In both cases, the companies highlighted the relevance of responsible sourcing in order to enable a sound SBM implementation. The pressure of continuously producing and offering more sustainable materials and new products and services, arises from the consumers and is consequently translated to the companies and finally to the suppliers. Hence, both companies and their consumers have a direct impact on the suppliers which underlines the dependability between these three unities.

However, we found that the relationship with the suppliers and the developed initiatives will vary in accordance to the dependability that companies have from the suppliers. On the one hand, if one company was a relatively bigger client for the suppliers, firms would notice less resistance when it would come to the implementation of new standards and procedures. On the other hand, if the company had a limited number of suppliers and therefore a high dependability on them, the process of adaptation tends to involve higher commitment by the firms. Thus, the firms implement the changes gradually and continuous support is given to the suppliers.

Actions to overcome this challenge

Our results do not support Nidumolu et al.'s (2009) argument to offer incentives to the suppliers to facilitate the transformation process. However and more importantly, the findings are aligned with Laukkanen and Patala's (2014) suggestions about the relevance of diffusing knowledge among the value chain. In particular, both companies have implemented codes of conduct in which social and environmental requirements are included. Based on the experience of the companies, the codes must clearly reflect the expectations of the firm and include definite targets and objectives. Furthermore, the implementation needs to be accompanied by training workshops and education skill enhancement. In addition to codes of conducts, both companies have expanded the use of specific standards such as FSC and BCI throughout their suppliers.

5.2.3 Value Capture

Accounting for the third key component, value capture within an SBM demonstrates how companies rethink their approaches to measure corporate success. As stated in the literature, this implies multiple challenges in terms of adopting a long-term perspective, making several investments, finding new sources of income and adapting the economic model.

- **Align short-term and long-term goals**

By means of the collected data of both companies the interviewees highlighted the fact that implementing an SBM essentially requires a long-term approach. In fact, both companies agreed that sustainability is associated with investments whose results cannot be yielded in the short-term. Regarding the main findings, literature claims that the alignment of short and long-term goals are considered a vast challenge for companies. While most companies find it difficult to balance financial short-term goals with sustainability-centered long-term goals, our results suggest that the two analyzed privately owned companies do not regard this to be as challenging as it might be for listed companies.

In fact, both companies claim that being private companies has supported their adoption of long-term perspectives which allows them to make big investments and provides them with economic latitude. However, as the pressure from external sources is limited (e.g. shareholders interest), it is vital for sustainability to be anchored within the minds of those at the top of the hierarchy. If leaders and owners of privately held companies are not committed to sustainability, it can hardly be executed throughout the company.

Actions to overcome this challenge

To begin with, companies within their introduction stage, need to consider how the ownership structure of the company may affect the implementation of SBMs. Hence, if founders have entirely internalized sustainability, constituting the company as a private entity can facilitate adopting a long-term philosophy. In contrast, already established companies that are no longer in their initial period may face intricacies to change the ownership structure. Thus, the following actions can help companies to further develop a long-term perspective.

Consistent with the literature, the case results revealed that adopting a stakeholder perspective is fundamental to support long-term goals. Following Tetra Pak's strategy, companies can deploy their materiality assessments to identify and prioritize stakeholder needs according to the impact that the companies' actions can generate. One alternative to simplify this process is to follow GRI standards or similar reporting initiatives.

Literature suggests including environmental and social performance measures which is further amplified by our findings. Nowadays firms can make use of different software to measure the environmental impact of their operations and hence set up targets to reduce them. Regarding the impeded measurement of social impacts, it is suggested to comply with initiatives such as the UN Global compact principle or the SDGs as an attempt to universally measure the social impact of the companies.

- **Adapting profit model to balance costs associated with SBM**

As mentioned throughout several parts above, the implementation of SBM including the aforementioned sustainability efforts involves additional costs that require analytical consideration. For instance, if technological investments are made (e.g. new machines, technological updates), these are usually faced with extensive costs, especially when adjusted for a mass market such as Tetra Pak's machineries. Continuously meeting requirements regarding more sustainable materials and products further stresses the profit model of a company aiming at becoming sustainable.

However, our results suggest that this aspect is not regarded as the major concern of the observed companies. Due to their ownership structure and the economic latitude they possess, they regard sustainability as a long-term investment and are hence less price sensitive when making major investments. Ultimately, these companies are comparatively more willing to

make big financial investments. However, these findings cannot be extrapolated to all companies as there are numerous possible factors influencing the profit model. As such, it is not only the corporate structure that needs to be regarded, but additional factors can play a significant role when it comes to the impact of the costs in the transformation process.

Actions to overcome this challenge

In addition to the internally perceived benefits of the ownership structure, companies can further try to balance their profit model by developing new ways to make profits. For instance, both companies have developed new products from recycled materials which is in accordance to the implementation of archetypes such as *Maximize material and energy efficiency* or *Create value from waste*. Taking into consideration the results of the case study, adopting these archetypes has proven to be successful - investing in more clean energies, water and energy efficiency has indeed helped the companies to reduce the costs in the long-term. Moreover, as mentioned before it is important for companies implementing SBMs in order to go beyond financial measures and implement other performance measures that can capture the impact of sustainability in the firm's operations.

5.2.4 Affecting the entire SBM

On the one hand, the regulatory aspect stood out as one of the main challenges that companies faced during the transformation process. On the other hand, partnerships appeared as a frequent solution to overcome multiple challenges. Both legislation and partnerships can influence the entire SBM since legislation can affect any of the above-mentioned elements and partnerships can be used as an action to overcome more than one of the challenges previously mentioned.

- **Multiple governmental regulations and velocity of the legislation adaptation**

As stated above, both companies included in this research are originally Swedish, however, nowadays Tetra Pak as well as IKEA are operating on a global scale. As a result, they have to achieve local targets in terms of their environmental impact and comply with local regulations that are sometimes partially overlapping and contradictory. These results confirm Laukkanen and Patala's (2014) arguments which state that these multiple regulations hence represent a challenge for companies. In addition to the challenge concerning the lack of harmonization, we also found that the adaptation period and its velocity toward local legislature cannot be neglected. In fact, a legislature that responds too slowly to new procedures or the use of new

materials, represents another major challenge for companies that are continuously innovating. Moreover, supporting Chkanikova and Mont's (2015) statements, regulations can likewise be regarded as an opportunity to promote changes in the industry and encourage innovation.

Actions to overcome this challenge

Advocacy and partnerships between companies are highly relevant in order to minimize the impact of excessive regulations and encourage legislations that support innovation. Thus, strengthening the public affairs department and becoming a member of industrial associations can support companies to counteract this challenge. It is equally important to be proactive and to actively participate in public consultation processes. As mentioned by the interviewees, if companies can demonstrate their commitment to sustainability, they will have more opportunities to be regarded as credible stakeholders and thus build a constructive relationship with the authorities. Moreover, in consistency with the literature, the development and adoption of more rigorous internal standards stood out as an alternative to overcome the lack of harmonization.

- **Partnerships**

A recurrent solution to overcome several of the aforementioned challenges was to set up partnerships. These partnerships not only include NGOs but also authorities and other firms. Regarding their economic, social and environmental value they contribute to their partnered companies, we found them especially relevant in terms of counteracting challenges related to customers, suppliers and regulations. Additionally, partnerships encompassing an added value in societal dimension create a positive PR-related image that a company cannot forego. Such partnership is hence reasonable and advantageous regarding monetary aspects, especially as the company's core segment as well as personnel and material resources are only slightly impaired. These results are aligned to the system perspective described by Stubbs & Cocklin (2008). Thus, both empirical findings arising from this thesis and previous research confirm that sustainability and the implementations of SBMs by the companies require commitment by multiple actors and a pronounced time horizon.

5.3 Chapter summary

Based on the theoretical framework developed in chapter two and the modifications and additions derived from the discussion presented in this chapter, Table 4 summarizes the challenges that companies may face during the transformation from traditional BMs to SBMs. In addition, the actions to overcome these challenges are presented and furthermore supported by specific examples. In comparison to the framework presented in chapter two (see Table 1) one of the main changes is related to the magnitude of the challenges about customers and regulation. Moreover, there are changes in terms of the actions that companies have developed in relation to suppliers and the organizational culture. In addition, setting up partnerships was included as a common action to overcome multiple challenges. Finally, additional comments were added when other factors such as the type of business or the ownership structure could affect the impact of the challenge.

Table 4 Revised theoretical framework

SBM Element	Challenge	Actions to overcome this challenge	Examples
Value proposition	<p>Increase customer acceptance and improve communication to the customer</p> <p><i>*This challenge can have a different impact depending on the type of business (B2C-B2B)</i></p>	<ul style="list-style-type: none"> ● Amplify knowledge about customer needs ● Promote sustainability among customers 	<ul style="list-style-type: none"> ● Surveys ● Highly qualified key account managers ● Education campaigns in schools and project such as <i>Nurture for Nature, The Soft Toy Movement</i>
Value creation and value delivery	<p>Creating a new organizational culture</p>	<ul style="list-style-type: none"> ● Redefine organizational purpose at a strategic level ● Promote organizational learning ● Utilize work spaces to promote sustainability 	<ul style="list-style-type: none"> ● Incorporate sustainability as part of the vision, mission and core values ● Trainings and workshops ● Offices with solar panels and water saving systems
	<p>Modify company's network</p> <p><i>*Grade of dependability may affect the impact of this challenge</i></p>	<ul style="list-style-type: none"> ● Diffuse the knowledge through network 	<ul style="list-style-type: none"> ● Codes of conducts and training workshops ● Use of standard such as FSC and BCI
Value capture	<p>Align short-term and long-term goals</p>	<ul style="list-style-type: none"> ● Private ownership structure ● Adopt a stakeholder perspective 	<ul style="list-style-type: none"> ● GRI Materiality assessment to operationalize

	<p><i>*Ownership structure may affect the impact of this challenge</i></p>	<ul style="list-style-type: none"> ● New measurement and reporting systems including social and environmental components 	<p>stakeholder perspective</p> <ul style="list-style-type: none"> ● Measurement of air emissions, recycle rates, jobs created ● Adoption of UN Global Compact principles and SDGs
	<p>Adapting profit model to balance costs associated with SBM</p> <p><i>*Ownership structure may affect the impact of this challenge</i></p>	<ul style="list-style-type: none"> ● Private ownership structure ● Development of technologies orientated to reduce costs and create new sources of income ● New measurement and reporting systems that include social and environmental components 	<ul style="list-style-type: none"> ● Investments in solar panels and wind farms ● Creation of products from recycled materials
<p>Externally affecting the entire SBM components</p>	<p>Multiple governmental regulations and velocity of the legislation adaptation</p>	<ul style="list-style-type: none"> ● Development of internal standards that enforce and comply with the most rigorous regulation ● Active participation in public consultation processes ● Partnerships to promote standardized regulations 	<ul style="list-style-type: none"> ● Tetra Pak's standard for air emissions ● Strengthen the public affairs department ● Become member of industrial associations
<p>Action to overcome multiple challenges → Partnerships with NGOs, industry associations, authorities and intergovernmental organizations</p>			

6 Conclusion

Throughout this chapter, the focal arguments of this thesis will be summarized and significant points will be highlighted in order to reassure a proper understanding of this research. By means of our research, this thesis aimed at analyzing the challenges that companies face when adjusting their BM towards sustainability and the actions to overcome them. Thus, the overarching question that created the foundation of this research was:

How can companies overcome the challenges of transforming their Business Model into a Sustainable Business Model?

However, in order to properly respond to this question, an examination of the according theoretical components was required. In accordance to this, existing theories about Sustainability, BM, and SBM have been analyzed in order to provide the theoretical background required to understand the transformation process. Considering that previous research about challenges related to the aforementioned transformation was widely spread, we considered it highly relevant to organize and converge previous works in order to provide a consolidated view about this topic. By doing so, we aimed at providing a major contribution with the framework created in 2.5 which was reviewed and consequently presented in 5.3. The findings were organized into four categories based on their relationship with each SBM element. The resulting main insights are presented in the following paragraphs:

1. Value proposition

The relationship with customers and the effective communication concerning sustainability efforts appeared as the main challenge regarding this element. To counteract these challenges, companies need to increase their knowledge about customers. Conducting surveys and employing qualified sales managers are some of the options to do it. As a result, a better understanding of customer needs, customer segmentation, and society and target group related typologies can be achieved. Moreover, education campaigns to increase awareness of sustainability may also help to overcome this challenge. In addition, it is important to keep in mind that the nature of the business - B2B/B2C- may affect the grade of impact of this challenge.

2. Value creation and value delivery

Both the organizational culture and the company network play a fundamental role in the transformation process. Hence, increasing awareness about sustainability among co-workers and suppliers is one of the main challenges. Companies can diffuse this knowledge internally through the mission and vision, workshops, intranet and the work spaces. Regarding the relationship toward the suppliers, it becomes apparent that clear standards, codes of conducts and trainings are highly relevant to overcome this challenge. Moreover, it is important to bear in mind that the size and dependability on suppliers could affect how this challenge is perceived by companies.

3. Value capture

Adopting a long-term perspective and balancing the costs associated with sustainability were not regarded as the main challenges for the companies included in this research. However, since both companies are privately owned, these results are to be interpreted with caution. Moreover, companies can reinforce a long-term perspective by considering stakeholder needs, for instance by implementing a materiality assessment. In addition, companies can counteract this challenge by finding new sources of incomes, adopting multiple performance measures that go beyond financial results and developing new sources of income.

4. Dimensions affecting the entire SBM

In order to overcome the challenges of overlapping regulations and slow adaptation of legislation, companies need to be proactive and participate in public consultation processes. Thus, the regulatory and public affairs department of the companies play a relevant role. Furthermore, complying with the most rigorous legislation or modifying and reforming internal standards more strictly might help to overcome this challenge as well. In addition to the above-mentioned actions to counteract each challenge, the results of this thesis have revealed that setting up partnerships and collaborations with NGOs, authorities and other companies is crucial in terms of achieving sustainability goals and overcoming many of the challenges that companies face during the transition toward SBMs.

Moreover, by focusing our thesis on the Swedish companies IKEA and Tetra Pak, we have demonstrated practical executions in terms of the BM transformation. This research encompasses both primary data conducted from professionals at local subsidiaries, as well as

secondary data gathered from published documents (e.g. annual report, sustainability report, etc.). Hence, besides providing understanding and clarifying potential misinterpretations, the objective was to create a foundation for future practitioners and researchers.

Additionally, this thesis envisioned explicating interrelations and causal links between the theories and key actors. By reviewing multiple previous research, inconsistencies were discovered - especially as the field of challenges throughout the BM transformation has only been analyzed partially. This thesis hence aimed at identifying and filling this theoretical gap.

6.1 Theoretical and Practical Implications

As stated throughout several parts along this thesis, the field of SBM has significantly gained importance for both researchers and practitioners. However, approaching this topic requires additional analysis and discussion. In particular, previous research about the transformation process is limited and the existing data about challenges concerning this transformation is partially spread. Hence, the theoretical implications of this thesis can be categorized in three ways. Firstly, it generates a better understanding of the broad nature of the SBM and its subcomponents. Secondly, it converges and organizes existing data around the challenges of BM transformation toward SBM. Lastly, by collecting empirical data, additional insights about how companies overcome these challenges have been examined.

Regarding the practical implications, a better understanding of these challenges may allow incumbent firms to implement appropriate strategies in order to facilitate and accelerate the transition. Moreover, we consider that conclusions of this thesis can also be extracted for new companies, even though this thesis is based on two established companies with long experience on the market. For instance, companies that are in the process of developing their own business model can use this thesis as a guide to avoid common mistakes and put into practice the strategies to overcome the challenges in early stages of the process.

6.2 Future Research

Reconsidering the scope of this thesis, it is apparent that the two analyzed companies are multinational companies of large size. Hence, we regard it as an opportunity for future researchers to refocus on the practical analysis unit and analyze the challenges faced by SMEs during their transformation process toward SBMs. Illustrating this thought and providing an impulse, both companies included in this thesis claimed that balancing costs associated with sustainability did not represent a main concern to them. However, for SMEs this challenge can in fact be regarded as a major concern - therefore different actions to overcome it may be required. Moreover, throughout this research we gained insight about the challenges and actions from the companies' and employees' perspectives. We consider that further research about this topic can include other stakeholder perspectives such as suppliers, consumers and NGOs to analyze the challenges from a different point of view. In particular, this would enable an inclusion of other actions that can be taken to counteract these challenges. Additionally, throughout this thesis it is indicated that both analyzed companies operate on a global scale. Thus, the SBMs of Tetra Pak and IKEA could hence be further examined based on different subsidiaries, e.g. comparing IKEA Canada with IKEA Japan. Doing so will enable a precise approach toward country-specific characteristics and will additionally consider the impact of socio-political aspects. Further enhancing this potential, future research could focus on disclosing dissimilarities, for instance between developed and developing countries.

As highlighted above, the final decisions in terms of sustainability efforts execution are made by the top of the hierarchy, i.e. board of directors, CEO, CFO etc. Hence, should sustainability not be solidly anchored in their minds, it cannot be properly executed. As a result, it is highly relevant for the management to have a solid foundation concerning SBMs underlying concise scrutiny. In this regard, future research can envision an approximation toward change management theories in order to explore alternative actions to overcome the challenges stated throughout this thesis.

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Appendix A

Interview guide for interviewees

Research topic	
Challenges of transforming the Business Model into a Sustainable Business Model	
Interviewee	Researchers
X	Viviana Bermudez-Martin Schneider
<p>Themes for the interview*</p> <ul style="list-style-type: none"> ● Please explain your role and experience at Tetra Pak/IKEA. ● How does Tetra Pak/IKEA define sustainability? ● Which have been the main challenges that Tetra Pak has faced during the integration of sustainability in its BM? ● How does Tetra Pak/IKEA balance short-term financial results with sustainability long term goals? ● Do you think being a privately held company influences the sustainability execution (compared to public companies)? ● How do you prioritize Tetra Pak's/IKEA's stakeholders' interests? ● Are there additional costs/challenges when implementing an SBM and if so, how did you adapt your economic model? ● In these X years at Tetra Pak/IKEA, have you perceived any changes in the vision, mission, values and organizational purpose of the firm when adapting your BM to sustainability? ● Which initiatives does Tetra Pak/IKEA take to integrate sustainability in the organizational culture? How do you communicate Tetra Pak's/IKEA's sustainability efforts to co-workers? ● Have you perceived a shift/change in the customer's perception about sustainability? If so, how did it change? ● Do you have any initiative to increase awareness of sustainability among your customers? ● You're an international company. How do you comply in each country with given regulations in terms of sustainability? To what extent do you think a lack of harmonization in terms of global regulations can be a challenge to achieve sustainability? How do you translate sustainability initiatives into measurable targets and results? ● How did Tetra Pak adapt the relationship with its network (e.g. suppliers, distribution channels) to accomplish its sustainability goals? ● Taking a long-term perspective: What would you say will be the main threats companies face in terms of sustainability? <p><i>*The provided information only be used for the purpose of the study</i></p>	

Appendix B

Interview guide for interviewers

1. Please explain your role, time and experience at Tetra Pak/ IKEA.
2. How does Tetra Pak/ IKEA define sustainability?
3. Which have been the main challenges that Tetra Pak/ IKEA has faced during the integration of sustainability in its BM? <ul style="list-style-type: none"> - This questions either confirms the barriers and challenges in the literature or identifies new challenges that have not been identified by the literature
4. How does Tetra Pak/ IKEA balance short-term financial results with sustainability long term goals? <ul style="list-style-type: none"> - E.g. when wanting to use more efficient materials, such as extra-dense wood, but still doubting the reduced outcome (or longer production cycles, because it takes longer to complete the final product)
5. Do you think being a privately held company influences the sustainability execution (compared to public companies)?
6. How do you prioritize IKEA/Tetra Pak's stakeholders' interests?
7. Are there additional costs/challenges when implementing an SBM and if so, how did you adapt your economic model? <ul style="list-style-type: none"> - Single or continuous investments?
8. In these X years at Tetra Pak/IKEA, have you perceived any changes in the vision, mission, values and organizational purpose of the firm when adapting your BM to sustainability?
9. Which initiatives does Tetra Pak/ IKEA take to integrate sustainability in the organizational culture? How do you communicate Tetra Pak/ IKEA's sustainability efforts to co-workers? <ul style="list-style-type: none"> - Ask about his opinion about employee perception.
10. Have you perceived a shift/change in the customer's perception about sustainability? If so, how did it change? <ul style="list-style-type: none"> - (E.g. easier to sell sustainable products nowadays? less customer resistance?)

11. Do you have any initiative to increase awareness of sustainability among your customers?

- If so, what are these?
- If not, we could argue this is a gap that could be filled in the future.

12. You're an international company. How do you comply in each country with given regulations in terms of sustainability? To what extent do you think a lack of harmonization in terms of global regulations can be a challenge to achieve sustainability?

13. How do you translate sustainability initiatives into measurable targets and results?

- Do you have any specific KPI to measure sustainability?
- Do you orientate yourself on other measurement best practices, e.g. Global Compact?

14. How did Tetra Pak/ IKEA adapt the relationship with its network (e.g. suppliers, distribution channels) to accomplish its sustainability goals?

- Which kind of initiatives has the company developed regarding this topic?
- Did it change suppliers, or did it radically change its logistics departments?

15. Taking a long-term perspective: What would you say will be the main threats companies face in terms of sustainability?

- E.g. Impact of millennials, different culture compared to 50 years ago, any socio-political components

Appendix C

Structured interviews - Ikea coworkers

1. Which is your current position at Ikea?
2. How long have you been working here?
3. What do you know about Ikea's sustainability efforts?
 - 3.1 How do you receive this information?
4. To what extent do you think sustainability is integrated in your daily work?