INTEGRATING SUSTAINABILITY IN COMPANIES' BUSINESS MODELS – A QUALITATIVE ANALYSIS OF THE FAST FASHION INDUSTRY

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Thesis written under the supervision of Professor Tommaso Ramus

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Abstract

Title: *“Integrating sustainability in companies’ business models – a qualitative analysis of the fast fashion industry”*

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This thesis examines how companies inside the global fast fashion industry change their business models to embrace sustainability. Drawing on a comparative case-study design, I analysed a sample of eight leading multinational companies in the fast fashion sector. My findings suggest that all eight sample companies embrace sustainability mainly symbolically, leaving it to the periphery of their business models. This implies, that the core elements of the companies’ business models are not subject to significant change. Moreover, my findings suggest, that the sample companies face multiple tensions in addressing sustainability across all its three dimensions (economic, social, and environmental). Finally, my data shows that, in general, the business model of the analysed fast fashion industry is in its current structure inherently inconsistent with sustainable development. By providing insights on how a firms’ business model can be applied and adapted to embrace sustainability across the firms’ structures and business practices, my study enriches the understanding on sustainability and its integration in the business context. Additionally, my research adds value to the literature on tensions in corporate sustainability and challenges the dominant focus on the win-win paradigm in sustainability research. And, finally, my findings reinforce the fact that sustainability often is limited to the periphery of organisational functioning.

Keywords: sustainability, sustainable development, corporate sustainability, business model, fast fashion

Resumo

Título: *"Integrar a sustentabilidade nos modelos de negócio das empresas – uma análise qualitativa da indústria de moda fast-fashion"*

Autor: Timon Matzura

Esta tese examina como as empresas da indústria global de moda fast-fashion mudam os seus modelos de negócio para aumentar a sua sustentabilidade. Com base num design comparativo de estudos de caso, analisei uma amostra de oito empresas multinacionais líderes no sector fast-fashion. Os resultados sugerem que as oito empresas da amostra se abordam a sustentabilidade maioritariamente de forma simbólica, deixando-a num plano secundário nos seus modelos de negócio. Isto sugere, que os elementos centrais dos modelos de negócio das empresas não estão sujeitos a mudanças significativas. Adicionalmente, os resultados sugerem que as empresas da amostra enfrentam múltiplas tensões ao abordar a sustentabilidade nas suas três dimensões (económica, social e ambiental). Finalmente, os resultados mostram que, no geral, o modelo de negócios da indústria analisada é na sua estrutura atual inerentemente inconsistente com o desenvolvimento sustentável. Ao fornecer dados sobre como o modelo de negócios de uma empresa pode ser aplicado e adaptado para adotar uma atitude sustentável nas suas estruturas e práticas de gestão, o meu estudo enriquece a compreensão da sustentabilidade e da sua integração no contexto de negócios. A minha investigação adiciona ainda valor à literatura das tensões na sustentabilidade corporativa e desafia o foco dominante da investigação de sustentabilidade no paradigma win-win. Por fim, os meus resultados reforçam ainda o facto de a sustentabilidade estar muitas vezes limitada à periferia do funcionamento das organizações.

Palavras-chave: sustentabilidade, desenvolvimento sustentável, sustentabilidade corporativa, modelo de negócio, fast fashion

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BM	business model
BMC	business model concept
WCED	World Commission for Environment and Development

1. Introduction

1.1 Introduction to the topic

A business model (BM) serves as a holistic approach to explain how firms do business and describes how organisations create and capture value (Zott et al., 2011). Typically, the role of a for-profit organisation, and therefore, its BM is dominated by economic value creation and capturing, and the firm's business practices are mainly driven by shareholder interests.

However, pressing global challenges, such as climate change, biodiversity loss, environmental degradation, and persistent global inequalities have called for new BMs and more sustainable and holistic concepts, in order to effectively address these issues (Nasrullah, 2011; Scherer & Palazzo, 2011; Ripple et al., 2017). Moreover, many scholars argue, that business organisations have an intrinsic responsibility to solve societal problems, and not only follow the profit maximisation paradigm (Scherer & Palazzo, 2011). In this context, the concept of sustainability plays an essential role. Sustainability or sustainable development is most commonly defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations, 1987). In general, sustainability incorporates three interdependent dimensions: environmental protection, social equity, and economic development (Stubbs & Cocklin, 2008). While sustainability creates value for society, a BM is primarily designed to create economic value. This implies a reconceptualization of the BM structure, when a firm incorporates sustainability in its BM.

This thesis draws on both business model and sustainability theory to examine how companies within the fast fashion industry alter their BMs to embrace sustainability and attempts to contribute to corporate sustainability literature.

1.2 Research aim

Since there is yet no extensive research that studies sustainability and its integration in BMs, this thesis aims to further complement the emerging literature in this field (Sharma, 2002; Bansal, 2005; Stubbs & Cocklin, 2012). It seeks to answer the following research question: "How do companies change their business models to embrace sustainability?". Generally, a BM outlines the fundamental elements of a firm and describes how a firm creates and captures value (Zott et al., 2011). It is widely used to study the structure, activities, processes, policies, and strategies of an organisation. Consequently, it constitutes an ideal framework to understand if and how organisations change to embrace sustainability.

For the purpose of this thesis, I selected a number of eight companies, drawing on a comparative case-study design (Eisenhardt, 1989). The selected sample consists of the following multinational fashion brands: H&M, Zara, MANGO, Primark, GAP, Forever 21, UNIQLO, and Topshop. These companies are all part of the fast fashion industry, a sector that has received widespread criticism for its negative, social and environmental impact. Moreover, due to their size, global reach, and general impact on global sustainable development it is worth studying the selected companies.

My research shows that the sample companies embrace sustainability mainly symbolically, leaving it generally to the periphery of the BM. This implies, that the core elements of the companies' BMs, and therefore, the BM as a whole is not subject to significant change. Further, my findings suggest, that the sample companies face multiple tensions in addressing sustainability across all its three dimensions (economic, environmental, and social). Finally, my data shows that, in general, the BM of the analysed fast fashion industry is in its current structure inherently inconsistent with sustainable development.

My thesis includes three contributions to the literature. First, it contributes to the literature in that it enriches the understanding of how a firms' BM can be applied and adapted to embrace sustainability across the firms' structures and operations. Secondly, my study adds value to the literature on tensions in corporate sustainability and challenges the dominant focus on the win-win paradigm in sustainability research. And, thirdly, my findings reinforce the fact that sustainability often is limited to the periphery of organisational functioning.

1.3 Outline of the thesis

This thesis is organized as follows: chapter **one** introduces the research topic, describes the research aim, and presents an overview of the general structure of the thesis. Chapter **two** outlines the theoretical framework. It summarises the literature on business model concepts and sustainability. Moreover, it links both sustainability and business model theory and describes tensions in corporate sustainability. Chapter **three** gives an overview of the global fashion industry, focussing particularly on the fast fashion sector and sustainability within this specific sector. Chapter **four** describes the methodology in three subchapters. First, it covers the research design, the sampling strategy, and the description of the selected sample companies. Secondly, it outlines the data collection, and thirdly, the data analysis. Chapter

five includes a comprehensive summary of the research findings. Chapter **six** further discusses the empirical findings and the contribution to the literature of this thesis. Finally, chapter **seven** provides a summary of the thesis, describes its limitations, and discusses possible directions for future research.

2. Theoretical framework

2.1 The business model concept

While the academic literature body on business models constantly expanded in the last two decades, there is yet no consensus on a common conceptualization and definition of the business model concept (BMC) (Zott et al., 2011; Shafer et al., 2005; Burkhart et al., 2011). This is due to a number of reasons; first, the concept of business models is still a relatively new research topic. Only from the end of the 1990's the term business model (BM) increasingly appeared within the literature (Burkhart et al., 2011). Secondly, scholars have viewed the BMC from multiple and diverging perspectives, such as "e-business, strategy, technology, and information systems", which makes it extremely challenging to agree on how the BMC is defined and what it constitutes (Shafer et al. 2005, p. 200). Thirdly, the firm's BM and its strategy are often viewed as equal constructs and both terms are used interchangeably. This, however, neglects the differences between both concepts and leads to a misconception of the BMC (Shafer et al., 2005; Casadesus-Masanell & Ricart, 2010). In a simplistic attempt to define BMs, Shafer et al. (2005) divide the term BM in its two elements – *business* and *model*. They argue, that *business* refers to the process of value creation and capturing while a *model* constitutes "a representation of reality" (Shafer et al., 2005, p. 202). Hence, generally speaking, according to Shafer et al. (2005) a BM intends to describe how a firm creates and captures value in the day to day context it is embedded in. According to the literature review of Zott et al. (2011), "the business model has been referred to as a statement […], a description […], a representation […], an architecture […], a conceptual tool or model […], a structural template […], a method […], a framework […], a pattern […], and a set […]" (Zott et al., 2011, p. 1022).

Since the academic research on the BMC misses a common conceptual ground, in the following this chapter will outline the most cited and commonly used definitions and conceptualizations of the BMC. This includes the works of Chesbrough & Rosenbloom (2002), Osterwalder & Pigneur (2010), Magretta (2002), Casadesus-Masanell & Ricart (2011), and Zott, Amit, & Massa (2011).

Chesbrough & Rosenbloom (2002) see the BM as a heuristic business logic, that entails six functions. First, the BM describes the value proposition. Secondly, it defines a target group that may benefit from the value proposition. Thirdly, it organises the value chain for manufacturing and distribution. Fourthly, aligned with the value proposition and configuration of the value chain, the BM outlines the expected expenses and profits. Fifthly, it maps the firm's stakeholders (e.g. suppliers, partners, and competitors). Sixthly, the BM defines how a firm will differentiate from competitors and successfully compete within its target market(s). Chesbrough and Rosenbloom (2002) argue, that particularly for the development of new BM these six functions ultimately help to get access to finance and develop a business growth plan.
According to Osterwalder and Pigneur (2010), a BM "describes the rational of how an organization creates, delivers, and captures value" (Osterwalder & Pigneur, 2010, p. 14). It consists of the following "nine basic building blocks" (for a visualization see Osterwalder's and Pigneur's business model canvas in figure 1) (Osterwalder & Pigneur, 2010, p. 14):

i. Customer Segments: describe the set(s) of beneficiaries or customers an organisation intends to reach
ii. Value Proposition: describes how an organisation fulfils the needs of its customer segment(s) and creates value for customers
iii. Channels: describe the communication tools of an organisation to reach out to its customer segment(s) and provide its customers with the value proposition
iv. Customer Relationship: describes how and to which degree an organisation interacts with its customers
v. Revenue Streams: describe from which sources an organisation captures value and generates revenues
vi. Key Resources: describe the most relevant tangible and intangible resources an organisation requires to operate
vii. Key Activities: describe the most relevant actions and processes an organisation undertakes to make the business work
viii. Key Partnerships: describe the alliances and partnerships an organisation establishes with its stakeholders
ix. Cost Structure: describes the operational costs of an organisation

Collectively, these nine building blocks cover four core parts of an organisation: “customers, offer, infrastructure, and financial viability” (Osterwalder & Pigneur, 2010, p. 15). Osterwalder and Pigneur translated their theoretical BMC into the business model canvas, a hands-on tool that helps to portray, understand, and modify a firm’s BM. It allows to test assumptions and facilitates the innovation of new BMs. Due to its practical applicability, the business model canvas is widely used among practitioners (Osterwalder & Pigneur, 2010).

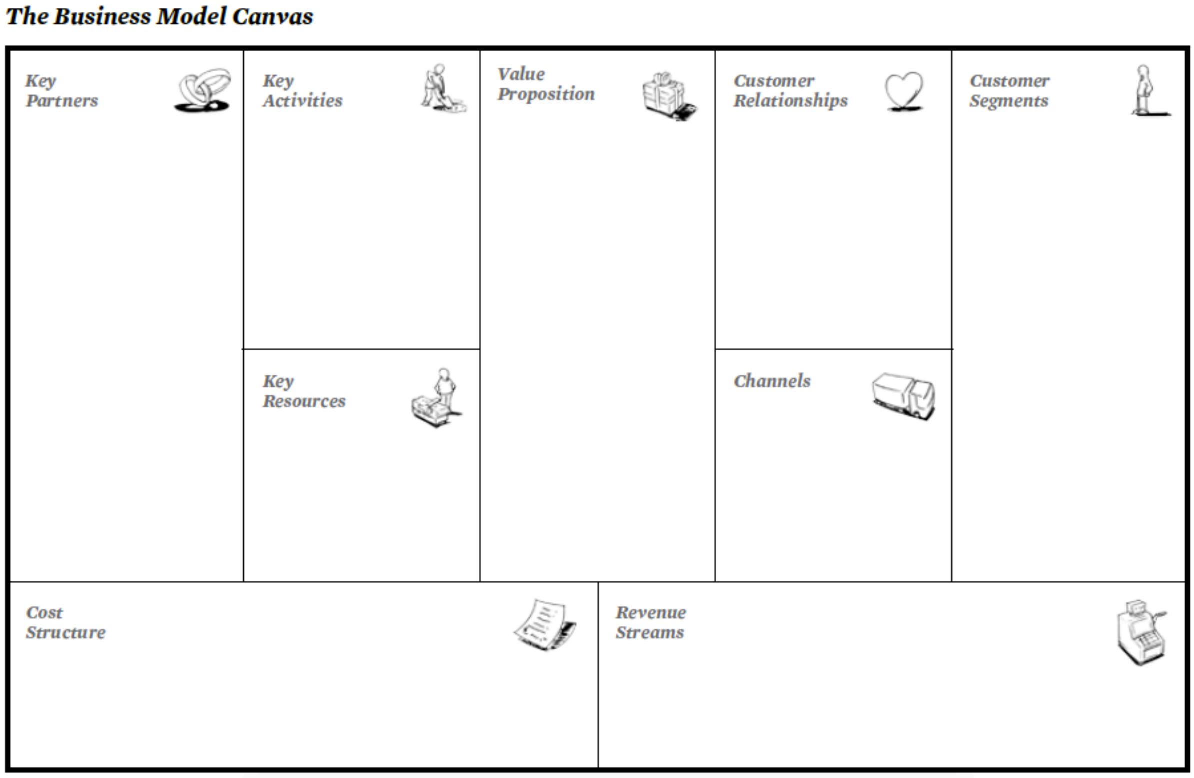

Figure 1: The business model canvas. Source: Osterwalder & Pigneur, 2010, p. 44

Magretta (2002) compares BMs with stories – “stories that explain how enterprises work” (Magretta, 2002, p.4). He argues that as every new story is based on some universal elements of human life, equally BMs are built on a common set of components, which are summarised in a “generic value chain” (Magretta, 2002, p.4). This value chain comprises two general parts. The first part relates to the processes involved in the creation of a product or service, such as the procurement of materials, design, and manufacturing. The second part describes how a firm intends to capture value. This includes, for instance, distribution, customer service, marketing, and sales. According to Magretta (2002) a good BM is able to answer a number of substantial questions to the business: “Who is the customer? And what does the customer value? […] How do we make money in this business? What is the underlying economic logic that explains how we can deliver value to customer at an appropriate cost?”

(Magretta, 2002, p. 4). In conclusion, for Magretta a BM organises a firm by its integral parts and describes how value is created and captured.

Casadesus-Masanell and Ricart (2011) characterise a BM as "a set of managerial choices and the consequences of those choices" (Casadesus-Masanell & Ricart, 2011, p. 5). As shown in Appendix I the choices of a firm's BM consist of three distinct parts, namely policies, assets, and governance. Policies place the firm's actions in a frame and shape its overall operations (e.g. sustainability commitment, employee code of conduct, diversity policies). Assets describe all tangible resources of a firm (e.g. machines, raw materials, buildings, office equipment). Finally, governance forms the regulatory framework that specifies the policy and asset choices (e.g. which resources are necessary to reach the firms' annual goals). The consequences resulting from these three choices are flexible or rigid. While flexible consequences arise from quick responses to related changes in choices (e.g. a price reduction leads promptly to higher sales), rigid consequences have no immediate impact as the firm's reaction to changes takes more time (e.g. a firm embraces new policies that challenge contradictory and deep-rooted habits of its employees). Moreover, if successful, according to Casadesus-Masanell and Ricart (2011) a BM creates "virtuous cycles, or feed-back loops, that are self-reinforcing." (Casadesus-Masanell & Ricart, 2011, p. 6). Figure 2 illustrates these dynamics through the example of the low-cost airline Ryanair.

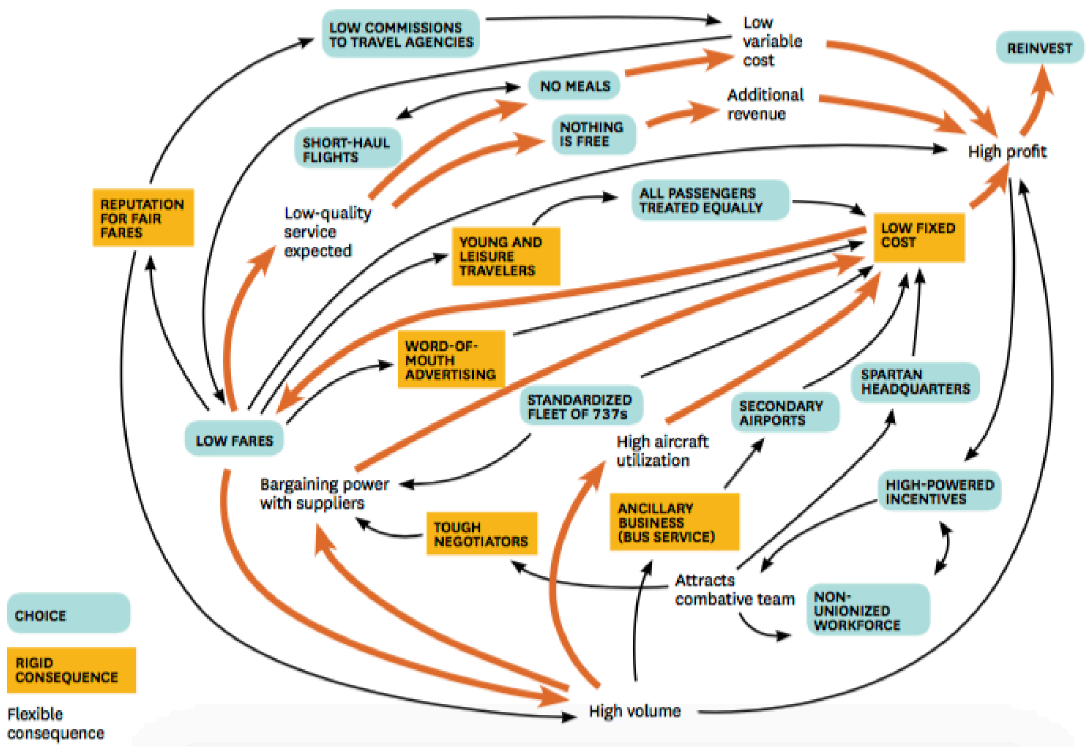

Figure 2: Ryanair's Business Model. Source: Casadesus-Masanell & Ricart, 2011, p. 7

Zott et al. (2011) provide an extensive review of the existing BM literature. As previously mentioned, they point out that researchers do not agree on a common BM definition and are often biased in that they tend to align the BMC with their specific research question. Yet, in general, the literature review of Zott et al. shows that the BMC is mainly applied in three emerging areas: "(1) e-business and the use of information technology in organizations; (2) strategic issues, such as value creation, competitive advantage, and firm performance; and (3) innovation and technology management." (Zott et al., 2011, p. 1020). Additionally, despite diverging BM definitions and conceptualizations there are a number of common elements within BM publications. First, although the BM usually relates to a firm or organisation, its scope goes beyond the individual operations of this entity. Secondly, a BM constitutes a description of how a firm operates. Thirdly, the conceptualization of the BM is usually significantly influenced by the activities of the firm and its stakeholders. Finally, a BM describes how a firm creates and captures value. Although the respective value can take different forms (e.g. economic, social, or environmental value), it is important to note that irrespectively from its definition, a BM is designed to primarily focus on economic value creation and capturing.

2.2 The concept of sustainability

Within the academic and corporate discourse sustainability is often differently defined and used. Several scholars point out, that sustainability still remains a rather vague and abstract concept (Milne & Gray, 2013; Buhr & Reiter, 2006; Laine, 2005; 2010; Livesey, 2002a; Milne et al., 2009). Many terms, such as sustainable development, social sustainability, corporate sustainability, and aligned concepts of corporate social responsibility (CSR), corporate citizenship, and triple bottom line are often used interchangeably among researchers and practitioners to refer to sustainability (Stubbs & Cocklin, 2008). From an organisational perspective, sustainability generally intends to create value for society (e.g. in form of social improvements or environmental gains) (Santos et al., 2015).

Although sustainability is described in multiple ways, the most common definition stems from the Brundtland Report - Our Common Future - issued by the World Commission for Environment and Development (WCED) in 1987 (Stubbs & Cocklin, 2008). The report defined sustainability or sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations, 1987). This definition encompasses a temporal and spatial element. The

temporal notion places emphasis on the inherent long-term and intergenerational equity perspective of social and environmental aspects (Held, 2001). The spatial element of sustainable development relates to intragenerational equity, underlining the importance of equal opportunities between and within developed and developing regions (Zuindeau, 2007). Based on this two notions the Brundtland Report and subsequent publications of the WCED introduced three interdependent principles of sustainability – environmental protection, social equity, and economic development. Further supported through Elkington's triple bottom line theory (1998) as well as the Global Reporting Initiative (GRI), these three dimensions - economic, environmental, and social – came to dominate the academic and corporate discourse on sustainability (Tregidga et al., 2018).
However, Tregidga et al. (2018) argue, that based on "how each of the three dimensions and the interactions between them are understood" and in which dimension the focus is placed, very different conceptualizations of sustainability arise (Tregidga et al., 2018, p. 9). In order to define these conceptualizations, the literature generally distinguishes between weak and strong sustainability (Pearce et al., 1989; Heidiger, 1999; Wackernagel & Rees, 1996; Dobson, 1999). While a weak conceptualization of sustainability rests on trade-offs between the three dimensions (e.g. gains in the economic domain are traded in the expense of the environmental and/or social domain) and is mainly dominated by an economic perspective, the strong conceptualization clearly acknowledges environmental and social limits to economic development, and therefore, certain environmental and societal elements remain untouched and cannot be traded (Tregidga et al., 2018; Hahn et al., 2010).

The majority of academic research on sustainability within the corporate context follows a rather narrow and organisation-centric conceptualization of sustainability (Hahn et al., 2015; Hahn et al., 2010; Tregidga et al., 2018). In many cases it focusses exclusively on the win-win paradigm and the business case for sustainability (Hahn et al., 2010). That is, literature on corporate sustainability is often biased towards economic outcomes, and thereby, favours the economic dimension over the other two dimensions (Kallio & Nordberg, 2006; Hahn et al., 2015; Gao & Bansal, 2013). Ultimately, this instrumental logic narrows down environmental and social issues and leads most likely to a situation in which scholars neglect to challenge and recognise unsustainable business practices (Hahn et al., 2015, Tregidga et al., 2018). And, as Tregidga et al. (2018) frame it, it allows companies to receive credit for "picking low hanging fruits" and limits sustainable development to "business-as-usual, or at best, business-a-little-less-than-usual" (Tregidga et al., 2018, p. 6). On the other hand, Shrivastava (1994), Purser et al. (1995), Gladwin et al. (1995), more recently Whiteman et al. (2013), Winn & Pogutz (2013), and others recognize the biophysical and societal limitations of economic development and the firms' embeddedness in a complex ecological system. Additionally, this body of literature questions the unsustainable nature of our current economic system and individual lifestyles (particularly in the developed world) and underlines the "inherent contradictions between economic growth, sustainable development, and societal and ecological limits" (Tregidga et al., 2018, p. 5; Hahn et al., 2015). As a reaction to the prevalent emphasis on economic variables within the managerial and organisational literature, Hahn et al. (2015) propose an integrative view on corporate sustainability, "which stresses the need for a simultaneous integration of economic, environmental and social dimensions without, a priori, emphasising one over any other." (Hahn et al., 2015, p. 2). Since this view recognises the complex nature of sustainable development and the tensions arising from corporate sustainability it is further discussed in the following chapter (2.3). Subsequently, this paper, uses the terms sustainability and sustainable development alike.

2.3 Tensions in corporate sustainability

Generally, the firm's role and therefore its BM is mainly driven by shareholder interests and economic value creation and capturing (Santos et al., 2015; Stormer, 2003). On the other hand, corporate sustainability requires organisations to create value for society (e.g. in form of social improvements or environmental gains), and therefore, implies a reconceptualization of how a BM is implemented or even designed (Stubbs & Cocklin, 2008; Santos et al., 2015).

Altering the BM to embrace sustainability across all its three dimensions (economic, social, and environmental) creates tensions and conflicts, as managers need to align the multifaceted and diverging elements of corporate sustainability and address the inherent contradictions between them (Margolis & Walsh, 2003; Hahn et al., 2015). Due to the firm's reliance on profitability and growth and the complex system perspective of sustainability that incorporates a multitude of varying characteristics, interests, and stakeholders, many conflicts arise. Hahn et al. (2015) define three areas of tensions in corporate sustainability, namely "(1) level, (2) change, and (3) context", drawing on academic research in the field of "strategic contradictions, tensions and paradoxes" (Hahn et al., 2015, p.13 & 4).

First, corporate sustainability encompasses multiple levels (Whiteman et al., 2013). As it is differently viewed and interpreted across "individual, firm and systemic levels", tensions emerge between and within those levels (Hahn et al., 2015, p. 13). On the individual level conflicts may arise due to diverging views and values among the firm's decision makers. For

instance, while some managers might prioritise the environment over societal issues, others might value more the social performance of the firm. Between the firm and systemic level, tensions emerge when corporate sustainability actions do not meet the overall environmental and social requirements of the underlying system the firm operates in. The systemic level relates inter alia to governmental regulations and expectations of universal stakeholders (e.g. society, NGOs, labour unions). Secondly, corporate sustainability comprises tensions in that it requires firms to significantly change their BMs. While people, and therefore, organisations generally react adverse to change, global challenges demand substantial change in the way we live, consume, and do business (Ripple et al., 2017; Tregidga et al., 2018). Hence, tensions emerge between managerial lethargy and the imperative for change.
Thirdly, the context dimension of tensions relates to the temporal and spatial notion of sustainable development described in the Brundtland Report in 1987 (Held, 2001; Zuindeau, 2007). Since the temporal notion places emphasis on a long-term and intergenerational equity perspective, it creates conflicts with the prevalent short-term orientation of businesses. Temporal tensions may occur either within (for example short-term economic objectives conflict with long-term economic objectives) or between (for example short-term economic objectives conflict with long-term environmental objectives) the economic, social, and environmental dimension of sustainability. Finally, the spatial element of sustainable development relates to intragenerational equity, underlining the importance of equal opportunities between and within developed and developing regions. Tensions in the spatial context emerge particularly, for multinational firms that operate in regions with distinct social and/or environmental standards.

As the integration of sustainability into the firms' policies and practices is often challenging and creates tensions in multiple areas, many organisations tend to embrace sustainability only symbolically (Crilly et al., 2012; Berrone et al., 2017). This implies for instance, that while companies might extensively invest in communicating their sustainability initiatives in response to external pressures, the actual outcomes of these initiatives fall short of having a significant impact on the firms' operational functioning. From a BM perspective, this means that the core elements of the firms' BM remain largely untouched and sustainability is only addressed within the periphery of the BM (Jones et al., 2012). This strategy is commonly defined as "decoupling" in the academic literature (Bromley & Powell, 2012; Crilly et al., 2012). It allows organisations to convey a positive image with regards to their sustainability performance and to receive credit for the symbolic integration of sustainability practices.

Bromley and Powell (2012) distinguish between two types of decoupling. First, policy-practice decoupling refers to gaps between the firms' policies and the actual practices. According to Bromley and Powell (2012) research suggests, that policies often only poorly predict real organisational behaviour. Secondly, means-ends decoupling describes situations in which firms implement their policies but without a strong relationship to organisational core activities (Bromley and Powell, 2012). Overall, policy-practice can be defined as "symbolic adoption" while means-ends decoupling describes "symbolic implementation" (Bromley and Powell, 2012, p. 15).

3. The fashion industry and sustainability

If the global fashion industry were an individual country, it "would represent the world's seventh-largest economy" according to its GDP (McKinsey&Company, 2016b, p. 6). Due to its economic weight and the fact that, in general, fashion constitutes a very labour and resource intensive industry that is embedded in globalized supply chains, it has an extensive impact on all three dimensions of sustainable development. For this reason, the analysis of the global fashion industry, specifically the fast fashion industry, and its adaptation towards sustainability offers valuable insights to the research fields presented previously.

3.1 The fast fashion sector

The fashion industry underwent a considerable transformation within the last decades (Bhardwaj & Fairhurst, 2010; Caro & Martínez-de-Albéniz, 2015). The emergence of fast fashion challenged the traditional product-focused fashion model of four seasons (spring, summer, fall, and winter) per year, and introduced a new fashion segment driven by speed, affordability, and ever-changing fashion trends. Fast fashion describes a BM that is based on flexible and highly responsive supply chains, "frequent assortment changes", and cheap and fashionable mass-market collections (Caro & Martínez-de-Albéniz, 2015, p. 7; Sull & Turconi, 2008). Drawing on short lead times (equal to time-to-market, including design, production, and distribution), low-cost materials, and cheap labour, fast fashion retailers are able to constantly launch new and inexpensive garments, incorporate emerging consumer preferences, and quickly respond to the latest fashion trends and styles. Typically, new designs arrive in retail and online stores on a weekly, if not, daily bases, following a fashion system of 50 to 100 micro seasons yearly (World Resources Institute, 2017). From a consumer perspective, fast fashion allows the average consumer (in developed markets) to frequently refresh its wardrobe with new fashion items, ultimately satisfying the consumer bias towards instant gratification and its "desire for novelty" (Fletcher, 2010, p. 260; M. Taplin, 2014).

Multinational fast fashion brands, such as Zara, H&M, Forever 21, and GAP are omnipresent in the worlds high-fashion shopping streets. Inditex, the parent company of Zara, for instance, operated 7292 retail stores in 93 markets by the end of 2016 (Inditex, 2017). With net sales of 23.3 billion Euros in 2016 Inditex ranked third among the world's 20 largest apparel companies, according to Forbes Global 2000 ranking (Forbes, 2016). Between 2007 and 2015 leading fast fashion brands have significantly outperformed the global apparel and footwear industry in growth (Quartz, 2016). Over the last three years the traditional fast fashion sector grew by more than 20 percent (McKinsey&Company, 2017).

3.2 Fast fashion and sustainability

In recent years, the fast fashion industry in particular, has received widespread criticism and faced extensive legitimacy threats. Incidences, such as the Rana Plaza collapse in Bangladesh in 2013 which killed over 1,100 garment workers and pressing societal and environmental issues within the industries' supply chains, revealed the downsides of fast fashion and caused broad public attention (The Economist, 2014; 2017; The Guardian, 2015). The industry was accused to take advantage of lax social and environmental standards in emerging and developing countries and to take a blind eye on labour rights, human rights violations, and environmental degradation. In response to this, fast fashion companies started to take accountability and incorporate more responsible business practices. To embrace the apparent sustainability challenges within the industry, companies inter alia engaged in several multi-stakeholder initiatives and incorporated more sustainable materials in their products. However, the nature of the fast fashion BM inhibits the industry's sustainability potential. The inherent focus on speed, economies of scale, cost minimisation, and an ever-increasing product throughput reinforces rather than alleviates several fundamental sustainability risks. These risks include "high water consumption, discharge of hazardous chemicals, violation of human rights, labor standards, greenhouse-gas emissions, and waste production" ((McKinsey&Company, 2016b, p. 32). Consequently, this implies an adaptation or redesign of the fast fashion BM if companies aim to truly embrace sustainability.

4. Methodology

4.1 Research design and sampling

My analysis of the research question – "How do companies change their business models to embrace sustainability?"- is based on a comparative case study design (Eisenhardt, 1989). This approach qualifies to identify differences, similarities, and common patterns across the selected sample and facilitates the elaboration of major conclusions on the research question (Eisenhardt, 1989; Baxter & Jack, 2008). Aligned with Eisenhardt's (1989) recommendation of selecting between four and ten cases, my sample consists of eight cases. In order to avoid the dominant focus on economic outcomes within the sustainability literature, I applied qualitative data collection methods, that allow for a critical and multi-layered study of the findings (Purser et al., 1995; Bryman & Bell, 2014).

With regards to the sampling strategy, I selected eight multinational fashion companies of which all are part of the fast fashion sector. Within the selection process I focused on the following four variables: (1) **Affiliation to the fast fashion sector:** as the term fast fashion is used in several contexts and there is sometimes no clear distinction between sectors, the selection draws partly on the research of Caro & Martínez-de-Albéniz (2015). Using Factiva's global news database and PDF documents available on Google search, Caro & Martínez-de-Albéniz performed a frequency count of the term fast fashion and respective fashion brand names. With exception of Primark (most likely due to its relatively smaller size and reach) all selected sample companies rank under the seven first retailers, measured according to the number of appearances (see Appendix II). (2) **Geographical origin:** to allow for a broader generalization of the findings, the sample companies were selected based on their headquarters location, including three continental areas (Asia, North America, and Europe (Northern and Southern)). (3) **Size and reach:** in order to ensure that the selected sample is representative for the fast fashion industry (primarily dominated by multinational corporates) all sample companies operate in at least ten different countries and earn more than 2.0 billion dollars in revenues per year. (4) **Transparency in sustainability:** to study companies that embrace sustainability within the fast fashion industry, I selected companies that actively communicate their sustainability activities (e.g. through sustainability reports and online publications).

The studied sample consists of the following eight fast fashion brands (with the respective parent companies in parentheses): H&M (H&M Group), Zara (Inditex), MANGO, Primark (Associated British Foods), GAP (Gap Inc.), Forever 21, UNIQLO (Fast Retailing), and Topshop (Arcadia Group). Table 1 includes a short description of each of the companies. It is important to note that, although the self-reported data used within the analysis is mainly derived from the parent companies, subsequently, the brand name and the name of the parent company are used interchangeably.

Table 1: Description of the sample companies

Company	**Description**
H&M (H&M Group)	H&M Group is a multinational fashion company based in Sweden. It is one of the world's largest fashion retailers. Its brand portfolio includes H&M, H&M Home, COS, & Other Stories, Monki, Weekday, Cheap Monday, and ARKET. The H&M Group operates in 68 markets (and 41 online markets) with over 4,500 retail stores. It has around 161,000 employees and the group reached $22.67 billion in revenues in 2016. H&M is the parent companies' biggest brand.
Zara (Inditex)	Inditex is based in Spain and is one of the world's largest fashion retailers, with the following eight brands: Zara, Zara Home, Pull&Bear, Massimo Dutti, Bershka, Stradivarius, Oysho and Uterqüe. Inditex operates in 94 markets (and 45 online markets) with 7292 retail stores. It has 162,450 employees worldwide and net sales reached €23.3 billion in 2016. Zara is the main brand of its parent company Inditex (with 2236 stores).
MANGO	MANGO is a multinational fashion company based in Spain. It operates 2,217 stores in 110 countries worldwide and has over 15,730 employees. In 2016 MANGO generated revenues of €2.26 billion.
Primark (Associated British Foods)	Primark (known as Penneys in Ireland) is an Irish multinational fashion company, belonging to Associated British Foods (ABF). Primark operates over 340 stores in 11 countries across Europe and America and has around 68,000 employees (730,000 people are employed by its suppliers). In 2016, Primark reached £5.9 billion (approx. US$6.9 billion) in revenues.
GAP (Gap Inc.)	Gap Inc. is a multinational fashion company based in the United States. Its portfolio of brands includes GAP, Banana Republic, Old Navy, Athleta, INTERMIX, and Weddington Way. Gap Inc. operates 3,300 own and around 400 franchise stores in 90 countries, employing around 140,000 people globally. As of 2014, the group reached $16.15 billion in revenues. GAP represents the groups leading brand.

Forever 21	Forever 21 is a multinational fashion company based in the United States. It operates more than 815 stores in 57 countries with retailers in the United States, Australia, Brazil, Canada, China, France, Germany, Hong Kong, India, Israel, Japan, Korea, Latin America, Mexico, Philippines and United Kingdom. Forever 21 reached $4 billion in revenues in 2016.
UNIQLO (Fast Retailing)	Fast Retailing is a multinational fashion group and is based in Japan. Its brand portfolio includes UNIQLO, GU, Theory, PLST, HELMUT LANG, Comptoir des Cotonniers, Princesse tam.tam, and J Brand. Fast Retailing operates 3,160 stores and reached $17.31 billion in revenues in 2016. UNIQLO, is Fast Retailing's main brand, with 1,800 stores in 18 countries.
Topshop (Arcadia Group)	Arcadia Group is a multinational fashion company, based in the UK. It owns the following brands: Burton, Dorothy Perkins, Evans, Miss Selfridge, Outfit, Topman, Topshop, and Wallis. Arcadia operates over 2,000 stores in more than 40 countries and reached $2.6 billion in revenues in 2016. Topshop, is one of Arcadia's main brands, with 620 stores and franchises in over 40 countries.

4.2 Data collection

In order to collect the data for my analysis, I followed a two-step process. First, I collected publicly available, self-reported data from the eight sample companies. This includes the companies' sustainability or annual reports (from 2012 until 2016, if available) and/or publications on the firms' websites. This first step, allowed me to get an initial overview of the industry, the companies' BMs, and their proclaimed sustainability strategies and practices. Moreover, it helped me to understand how these elements evolved over time. Secondly, I focused my data collection on public available data from the companies' stakeholder network and independent third-party sources. The data collected includes inter alia online publications of the firms' direct partners (6), industry reports (3), online newspaper articles (11), research reports from human and labour rights organisations, NGOs, and labour and trade unions (10), as well as company or sector specific academic literature (3). Through this extensive and multifaceted set of sources I was able to analyse the research question from different perspectives and critically study and question the companies' self-reported data collected in step one.

4.3 Data analysis

To conduct the data analysis, I used the BMC of Osterwalder and Pigneur (2010). As previously described, according to Osterwalder and Pigneur a BM consists of nine building blocks (see chapter 2.1 for a detailed description). Due to its explanatory value the analysis placed emphasis on the following four building blocks of the BMC of Osterwalder and Pigneur (2010):

i. Value proposition: The value proposition constitutes a fundamental part of the analysis, as it describes how a firm creates value for its customers, and therefore, it significantly shapes the firms' processes, its strategy, and product offers. That means, if a firm embraces sustainability, this will be reflected in its value proposition.
ii. Key partnerships: As sustainable development requires collective efforts, key partnerships play an important role in addressing sustainability issues. Hence, this building block offers insights on how and with whom the sample companies form partnerships and interact to embrace sustainability.
iii. Key activities: Sustainability initiatives are usually reflected within the firms' key activities. It is therefore important to study the firms' activities to understand how and from which angles companies address sustainability within their core activities.
iv. Key resources: As the sample companies rely on several resources that have extensive impacts on all three dimensions of sustainability, this building block presents insights on how companies adapt their resource composition to become more sustainable.

The analysis showed that some of the building blocks had no or only very limited explanatory relevance for the research question. I therefore decided to exclude the respective blocks from the core analysis. These include cost structure, customer relationship, channels, customer segments, and revenue streams. The cost structure was excluded for two reasons. First, public available data does not offer broad insights into firms' cost structures. Secondly, the available data did not suggest any significant implications. The analysis of the customer relationship building block showed no changes in its individual elements and was therefore excluded. Additionally, within the channels building block the traditional focus on e-commerce and offline retailing was not subject to any change and hence not relevant for the analysis. Although it is plausible to expect some changes in the customer segments, the data showed no significant impact in this block and the core segments remained the same. Ultimately, the revenue streams building block, consisting of instore and online sales, showed no differences either.

5. Findings

This chapter aims to examine how the eight sample companies change their BMs to embrace sustainability, drawing on the BMC of Osterwalder and Pigneur (2010) and the selected BM building blocks. The findings of my analysis are outlined below in the following order: value proposition, key partnerships, key activities, and finally, key resources.

5.1 Value proposition

According to Osterwalder and Pigneur, the value proposition of a company comprises a “selected bundle of products and/or services” that “solves a customer problem or satisfies a customer need” (Osterwalder & Pigneur, 2010, p. 22). In the fast fashion sector, the value proposition is best outlined by the following six key words: (i) affordable, (ii) fashionable, (iii) aware of trends, (iv) frequent collections/assortment changes, (v) limited, and (vi) *sustainable* (M. Taplin, 2014; Caro & Martínez-de-Albéniz, 2015; Bhardwaj & Fairhurst, 2010).

I find evidence that the sample companies increasingly incorporate sustainability in their value proposition. This, however, occurs for the most part in a symbolic way and serves to convey a positive brand image. On the contrary, fast fashion’s focus on affordability and frequent, limited, and fashionable mass-market clothing collections has created a value proposition, that is fundamentally based on materialism and in its present structure intrinsically inconsistent with sustainability.

Table 2: Illustration of the value proposition within the companies' BMs

Company	Value Proposition
H&M	**Sustainability:** relatively high presence in its value proposition; e.g. through H&M’s Garment Collection Initiative, World Recycle Week, Conscious Collection, and Conscious Exclusive Collection; **Core elements of fast fashion:** affordable (low-cost), frequent collections/assortment changes, limited; **Other elements:** fashionable, aware of trends;
Zara	**Sustainability:** relatively high presence in its value proposition; e.g. through Inditex’ Closing the Loop Campaign, and Zara’s sustainable label Join Life; **Core elements of fast fashion:** affordable (low-cost), frequent collections/assortment changes, limited; **Other elements:** fashionable, aware of trends;

MANGO	**Sustainability:** relatively low presence in its value proposition; e.g. through MANGO's textile recycling project; **Core elements of fast fashion:** affordable (low-cost), frequent collections/assortment changes, limited; **Other elements:** fashionable, aware of trends;
Primark	**Sustainability:** relatively low presence in its value proposition; e.g. through Primark's sustainable cotton products; **Core elements of fast fashion:** affordable (low-cost), frequent collections/assortment changes, limited; **Other elements:** fashionable, aware of trends;
GAP	**Sustainability:** relatively medium presence in its value proposition; e.g. through GAP's engagement within the Better Cotton Initiative; **Core elements of fast fashion:** affordable (low-cost), frequent collections/assortment changes, limited; **Other elements:** fashionable, aware of trends;
Forever 21	**Sustainability:** relatively low presence in its value proposition; e.g. through Forever 21's organic cotton products; **Core elements of fast fashion:** affordable (low-cost), frequent collections/assortment changes, limited; **Other elements:** fashionable, aware of trends;
UNIQLO	**Sustainability:** relatively medium presence in its value proposition; e.g. through UNIQLO's All Product Recycling Initiative; **Core elements of fast fashion:** affordable (low-cost), frequent collections/assortment changes, limited; **Other elements:** fashionable, aware of trends;
Topshop	**Sustainability:** relatively low presence in its value proposition; e.g. through Topshop's sustainable collection TOPSHOP RECLAIM; **Core elements of fast fashion:** affordable (low-cost), frequent collections/assortment changes, limited; **Other elements:** fashionable, aware of trends;

The Rana Plaza collapse in Bangladesh and other similar incidences, have drawn broad media attention to the downsides of fast fashion and made customers and the public more aware of the industry's negative impact on the environment and people. As a consequence, some fast fashion retailers began to reposition their brands and include sustainability in their value proposition, inter alia through customer engagement, the introduction of more sustainable collections, as well as PR campaigns. For instance, in 2013, H&M launched the Garment Collecting Initiative, an in-store recycling programme, that allows customers to drop off unwanted fashion items in its stores (H&M, 2014). In order to further support this initiative, in 2016 H&M introduced the World Recycle Week, a global marketing campaign that aimed to raise awareness around textile recycling and "to collect 1,000 tonnes unwanted or worn out garments" in only one week (Forsman & Bodenfors, 2016). Zara, GAP, UNIQLO, Forever

21, and MANGO have similar recycling initiatives in place, such as Inditex' Closing the Loop project (Inditex). Additionally, all sample companies have launched products or collections made of sustainable materials (is further discussed in chapter 5.4). However, in most cases these activities are rather ad hoc and are barely connected with the core elements of the companies' value propositions.

In contrast to the previously stated, the value proposition of fast fashion companies is particularly based on variables, that are contradictory to sustainability, namely affordability (low-cost), frequent assortment changes, and limited collections (Caro & Martínez-de-Albéniz, 2015). The average price point of fast fashion retailers is significantly lower compared to other fashion brands and prices as low as 3 Euros for a t-shirt are not uncommon (Oliver Wyman, 2015). While in 2000, European clothing companies on average launched two to four collections per year, Zara offers 24 and H&M 12 to 16 new collections each year (McKinsey&Company, 2016a). The traditional model of four seasons yearly – spring, summer, fall, and winter - has turned into 50 to 100 micro seasons, with new clothing items arriving at the stores on a weekly or daily basis (World Resources Institute, 2017). Low prices, constant assortment changes and limited, fashionable collections encourage consumers to frequently purchase new goods and have created a system of convenient and instant gratification (M. Taplin, 2014). For many mainstream consumers, fast fashion has become an addictive, non-sustainable lifestyle choice (M. Taplin, 2014). This, however, comes at a huge price for the environment and puts extensive pressures on resources and environmental boundaries. Between 2000 and 2014 global clothing production has doubled, and the number of garments purchased annually by the average consumer grew by more than 50 per cent (McKinsey&Company, 2016a). Moreover, consumers keep garments significantly less time and treat some of the clothing items as "nearly disposable, discarding them after just seven or eight wears" (McKinsey&Company, 2016a). According to the Ellen MacArthur Foundation, "more than half of fast fashion produced is disposed of in under a year" (Ellen MacArthur Foundation, 2017, p. 19). In the United States alone, 12.8 million tons of textiles end up in landfills or incineration plants annually (The Guardian, 2016). The massive production, consumption, and disposable of garments has created a highly unsustainable system of "take-make-dispose" (Ellen MacArthur Foundation, 2017, p. 36). While consumers certainly have to bear some of the responsibility, yet the companies are the ones sitting on the fast fashion driving seat and they do not appear to truly incorporate sustainability in their value proposition and substantially alter the elements of its intrinsically unsustainable nature.

5.2 Key partnerships

Osterwalder and Pigneur describe the key partnerships dimension, as a “network of suppliers and partners that make the business model work” (Osterwalder & Pigneur, 2010, p. 38). It reduces risks and serves to acquire resources (Osterwalder & Pigneur, 2010). Fashion companies form partnerships with logistic providers, employees, customers, NGOs, multi-stakeholder alliances, third party service providers, international development organisations, trade unions, research institutes, and low-cost suppliers.

As the fast fashion BM largely depends on cheap labour, the sample companies have outsourced most of their production to emerging and developing markets, sourcing their products from low-cost suppliers in countries such as Bangladesh, Myanmar, Pakistan, and India. These markets are characterized by low-cost labour, high productivity through work intensification (compulsory labour, regular excessive overtime, etc.), weak or non-existing labour and environmental standards, corruption, low transparency, and often suppressed and underdeveloped civil societies (M. Taplin, 2014; Laudal, 2010). In order to address the challenges emerging from these market structures and embrace sustainability, all eight sample companies engage with multiple stakeholders, such as NGOs, industry peers, research institutes, third-party providers, international development organisations, and trade unions. However, research suggests, that the impact of these partnerships is rather limited and many problems remain within the companies’ supply chains. As a consequence, sustainability is only marginally addressed.

Table 3: Illustration of key partners within the companies’ BMs

Company	Key partnerships
H&M	**NGOs:** Cradle-to-Cradle Products Innovation Institute, UNICEF, WWF; **Multi-stakeholder alliances:** Better Cotton Initiative (BCI), Accord on Fire and Building Safety in Bangladesh, CanopyStyle Initiative, EP100, Sustainable Apparel Coalition (SAC), Action Collaboration Transformation (ACT), Organic Cotton Accelerator (OCA); **Trade unions:** IndustriALL Global Union, IF Metall; **Research institutes:** Hong Kong Research Institute of Textiles and Apparel (HKRITA); **Low-cost suppliers:** mainly from emerging and developing markets, such as Bangladesh, Cambodia, China, Ethiopia, India, Indonesia, Myanmar, and Pakistan; **Other key partners:** logistic providers, customers, employees;
Zara	**NGOs:** Caritas, Red Cross, Oxfam, CEPF; **Industry peers:** Lenzing; **Multi-stakeholder alliances:** Better Cotton Initiative (BCI), CanopyStyle Initiative, Accord on Fire and Building Safety in Bangladesh, Sustainable Apparel Coalition (SAC), Action Collaboration Transformation (ACT), Better Work, Organic Cotton Accelerator (OCA); **Trade unions:** IndustriALL Global Union;

	Research institutes: MIT, specific Spanish universities; **Low-cost suppliers:** mainly from emerging and developing markets, such as Cambodia, Vietnam, India, Bangladesh, Pakistan, and China; **Other key partners:** logistic providers, customers, employees;
MANGO	**NGOs:** Fight Against Aids Foundation, Turkish Red Crescent, Dreaming Awake Foundation; **Multi-stakeholder alliances:** Accord on Fire and Building Safety in Bangladesh; **Third party service providers:** Koopera; **Low-cost suppliers:** mainly from emerging and developing markets, such as China, India, Bangladesh, Pakistan, and Vietnam; **Other key partners:** logistic providers, customers, employees;
Primark	**NGOs:** Business for Social Responsibility, The Association for Stimulating Know How (ASK), Verité, SHEVA; **Multi-stakeholder alliances:** Ethical Trading Initiative (ETI), Sustainable Clothing Action Plan (SCAP), Accord on Fire and Building Safety in Bangladesh, Sustainable Apparel Coalition (SAC), Action Collaboration Transformation (ACT); **International development organisations:** International Labour Organization (ILO), International Finance Corporation (IFC); **Low-cost suppliers:** mainly from emerging and developing markets, such as India, Myanmar, and Bangladesh; **Other key partners:** logistic providers, customers, employees;
GAP	**Multi-stakeholder alliances:** Better Cotton Initiative (BCI), Sustainable Apparel Coalition (SAC), Alliance for Bangladesh Worker Safety; **International development organisations:** U.S. Agency for International Development (USAID); **Low-cost suppliers:** mainly from emerging and developing markets, such as Bangladesh, Cambodia, China, India, Haiti, Indonesia, and Pakistan; **Other key partners:** logistic providers, customers, employees;
Forever 21	**NGOs:** PETA and several others within its charity initiatives; **Multi-stakeholder alliances:** Cotton Pledge (Responsible Sourcing Network); **Public entities:** U.S. Department of Labour; **Third party service providers:** I:Collect; **Low-cost suppliers:** does not publicly disclose any information on suppliers; **Other key partners:** logistic providers, customers, employees;
UNIQLO	**NGOs:** Business for Social Responsibility, Setouchi Olive Foundation, Japan Football Association, and several others within its community charity engagement; **Multi-stakeholder alliances:** Accord on Fire and Building Safety in Bangladesh, Sustainable Apparel Coalition (SAC), Fair Labor Association (FLA); **International development organisations:** UNHCR (the UN Refugee Agency); **Low-cost suppliers:** mainly from emerging and developing markets, such as Bangladesh, Cambodia, China, Indonesia, and Vietnam; **Other key partners:** logistic providers, customers, employees;
Topshop	**NGOs:** Harmony House; **Multi-stakeholder alliances:** Sustainable Clothing Action Plan (SCAP), Accord on Fire and Building Safety in Bangladesh, Better Cotton Initiative (BCI), Action Collaboration Transformation (ACT), CanopyStyle, Joint Turkey Project; **Low-cost suppliers:** mainly from emerging and developing markets, such as China, India, and Vietnam; **Other key partners:** logistic providers, customers, employees;

These findings can be best explained using the example of H&M, which is representative for all eight sample companies. Yet the type of partnerships as well as the quantity of partners may vary from some companies to others (see table 3). For H&M I identified four main variables in the sustainability domain. First, to embrace sustainability H&M partners directly or through the H&M Foundation with several NGOs. For instance, since 2011 H&M is working together with WWF to improve water management methods and policies in its global supply chains (H&M, 2017a). Additionally, in 2016 H&M collaborated with the Cradle-to-Cradle Products Innovation Institute to promote the use of sustainable materials in the fashion industry (H&M, 2017d). Secondly, H&M is part of numerous multi-stakeholder alliances that primarily focus on social and environmental challenges as well as transparency and traceability. This includes, inter alia the Action Collaboration Transformation (ACT), an initiative between clothing brands, retailers, manufacturers and trade unions, that intends to establish living wages in the textile and garment industry (ACT). Furthermore, in response to the Rana Plaza collapse in 2013, H&M signed the Accord on Fire and Building Safety in Bangladesh, a multi-stakeholder agreement to improve workplace safety in Bangladeshi garment factories (H&M, 2013). Thirdly, H&M partners with trade unions, such as IndustriALL Global Union, the world's largest sectorial trade union organisation and the Swedish trade Union IF Metall. With the objective to protect the interests of garment workers, H&M signed together with these two unions a global framework agreement (IndustriALL, 2015). Fourthly, H&M collaborates with research institutes. In 2016 H&M Foundation and Hong Kong Research Institute of Textiles and Apparel have entered a partnership to develop new technologies for textile recycling (H&M, 2016b).

Since garment manufacturing is still a very labour-intensive industry, however, H&M largely depends on low-cost suppliers in emerging and developing markets to sustain cheap and affordable prices, one essential part of fast fashion's value proposition. As H&M's supplier factory list indicates, the company sources its products from countries, such as Bangladesh, Cambodia, China, Ethiopia, India, Indonesia, Myanmar, and Pakistan (H&M, a). Despite a large number of partnerships that intend to address sustainability issues, research from human and labour rights organisations, NGOs, and labour and trade unions suggests that the impact of these partnerships often remains opaque and many social and environmental problems continue to surface in H&M's supply chain. For instance, in 2013, H&M announced to pay a fair living wage to all its supplier factory workers by 2018 (Reuters, 2013). "A wage which satisfies the basic needs of employees and their families and provides some discretionary income such as savings" (H&M, b). However, in Bangladesh garment workers at H&M supplier factories earn on average 87 USD per month (Clean Clothes Campaign, 2017a). According to estimates on living wages, such as the Global Living Wage or Asian Floor Wage, this salary would need to triple to cover basic needs and ensure a decent life for garment workers and their families (Clean Clothes Campaign, 2017b). Not only in Bangladesh, but also in Cambodia researchers have found evidence for low wages and regular excessive overtime (Clean Clothes Campaign, 2016; SOMO, 2017a). Moreover, these issues may indirectly contribute to school dropouts and child labour (SOMO, 2017a). In June 2017, a Changing Markets Foundation report pointed out, that H&M among other fashion companies (including Zara) is sourcing viscose from polluting factories in Indonesia, China, and India, harming the health of workers, local residents and ecosystems (Changing Markets Foundation, 2017). Although, in 2013 H&M signed the Accord on Fire and Building Safety, and therefore, committed to ensure the safety of workers in its supplier factories, a 2015 analysis of factory inspection reports in Bangladesh showed, that even H&M's in terms of sustainability supposedly best performing *Platinum* and *Gold* suppliers did not fulfil the necessary safety requirements (Clean Clothes Campaign, 2015). The Myanmar Dilemma, a report from several labour organisations points out that Action Collaboration Transformation (ACT) and other multi-stakeholder initiatives so far failed to significantly improve labour conditions within the local garment industry in Myanmar (SOMO, 2017b).

Overall, it becomes clear that even though the companies engage with multiple stakeholders to embrace sustainability, the apparent reliance on low-cost suppliers in developing and emerging markets makes it extremely challenging – if not impossible – to truly incorporate sustainability in the companies' partnership structures.

5.3 Key activities

Key activities "are the most important actions a company must take to operate successfully" (Osterwalder & Pigneur, 2010, p. 36). Within the fast fashion BM, the key activities include distribution, marketing, product design, social and environmental accountability, the implementation of sustainability initiatives, and supply chain rationalization.

The analysis within the key activities building block indicates, that the companies adopt certain activities to address sustainability, yet these activities do not make the companies' operations significantly more sustainable. First, I find evidence that all sample companies formalized their core social, environmental, and ethical norms in a code of conduct or a sustainability commitment. To take accountability the companies carry out supplier factory audits either under their own direction or in collaboration with external auditors. However, research suggests that standalone codes of conduct and audits are unlikely to effectively address accountability threats and significantly improve working conditions (Locke et al., 2013; Anner, 2012; ECCHR, 2016). Secondly, the sample companies implement sustainability initiatives to improve labour conditions, their environmental impact, as well as supply chain transparency and traceability. Drawing on the evidence described in the key partnerships building block, most of these initiatives have not yet proven to broadly impact the companies' sustainability performance.

Inditex provides a compelling illustration of the first finding. To ensure that all suppliers are aligned with the company's Code of Conduct for Manufacturers and Suppliers, Inditex, the parent company of Zara states that it conducts three kinds of audits under the umbrella of its Compliance Programme (Inditex, 2017). *Pre-assessment audits* are part of the preliminary evaluation of potential suppliers and manufacturers and serve to verify if the minimum requirements of Inditex are fulfilled. *Social audits* aim to regularly access the performance of suppliers and grade them accordingly, while *Special audits* focus on specific compliance issues. The audits are either performed by internal or external auditors. Likewise, I find evidence that the other sample companies have similar compliance policies and programs in place, such as Gap Inc.'s Supplier Sustainability Assessment Manual or Arcadia's Ethical Audit Programme (Gap Inc., a; Arcadia, a).

Besides this, all eight companies drive forward several sustainability initiatives in the fields of social and environmental sustainability, transparency, and traceability. With regards to environmental sustainability, Primark for instance, created inter alia the Sustainable Cotton Programme, an initiative that trains female farmers in sustainable farming methods (Primark, 2017). Furthermore, Primark and other sample companies (H&M, Zara, MANGO, and UNIQLO) committed to Greenpeace's Detox Campaign, that aims to phase out hazardous chemicals in the fashion industry by 2020 (Greenpeace, 2016). With the Mill Sustainability Program, Gap Inc. (parent company of GAP) intends to protect local habitats by establishing environmental standards for fabric mills (Gap Inc., b). In the scope of social sustainability, UNIQLO, for instance, supports the educational development of female workers in its supplier factories in Bangladesh and Indonesia through its Factory Worker Empowerment Project (UNIQLO). In order to further promote transparency, in 2016, H&M launched a pilot traceability system for organic cotton and viscose and expanded its public supplier factory list (H&M, 2017d).

It is important to note that the quantity of initiatives and the type and degree of general engagement varies widely among the sample companies. While some companies (H&M, Zara, and GAP) invest in multiple programs and extensively communicate their strategies and actions, other companies (MANGO, Primark, Forever 21, UNIQLO, and Topshop) are likely less ambitious with regards to sustainability and disclose significantly less information on their strategies and activities. Table 4 illustrates the differences among the companies more in depth.

Table 4: Illustration of key activities within the companies' BMs

Company	Key activities
H&M	**Social and environmental accountability:** H&M suppliers must sign its Sustainability Commitment; conducts factory audits and discloses compliance data of its first-tier suppliers; **Sustainability initiatives:** high activity in all four fields of action (social sustainability, environmental sustainability, transparency, and traceability); **Other key activities:** supply chain rationalisation, product design, distribution, marketing;
Zara	**Social and environmental accountability:** Zara suppliers must commit to its Code of Conduct for Manufacturers and Suppliers; conducts pre-assessment, social, and special audits; **Sustainability initiatives:** high activity in all four fields of action (social sustainability, environmental sustainability, transparency, and traceability) **Other key activities:** supply chain rationalisation, product design, distribution, marketing;
MANGO	**Social and environmental accountability:** Mango suppliers must commit to its Code of Conduct; discloses the Code of Conduct breaches found during audits (by country and by code of conduct breached) and summarizes how it reacts if a breach is detected; **Sustainability initiatives:** medium activity in environmental sustainability, low activity in social sustainability and transparency, no activity in traceability; **Other key activities:** supply chain rationalisation, product design, distribution, marketing;
Primark	**Social and environmental accountability:** Primark suppliers need to sign its Supplier Code of Conduct; Primark's Ethical Trade and Environmental Sustainability Team conducts audits in its supplier factories; **Sustainability initiatives:** medium activity in social and environmental sustainability, low activity in transparency and traceability; **Other key activities:** supply chain rationalisation, product design, distribution;
GAP	**Social and environmental accountability:** GAP suppliers must commit to its Code of Vendor Conduct; conducts audits based on its Supplier Sustainability Assessment Manual; **Sustainability initiatives:** medium activity in all four fields of action (social sustainability, environmental sustainability, transparency, and traceability); **Other key activities:** supply chain rationalisation, product design, distribution, marketing;

Forever 21	**Social and environmental accountability:** Forever 21 has a global ethical program in place; suppliers are required to participate in the program; **Sustainability initiatives:** low activity in environmental and social sustainability, no activity in the other fields of action (transparency, and traceability) **Other key activities:** supply chain rationalisation, product design, distribution, marketing;
UNIQLO	**Social and environmental accountability:** UNIQLO suppliers must commit to its Code of Conduct for Production Partners; collaborates with external auditors to conduct social audits; **Sustainability initiatives:** medium activity in environmental sustainability, low activity in social sustainability and transparency, no activity in traceability; **Other key activities:** supply chain rationalisation, product design, distribution, marketing;
Topshop	**Social and environmental accountability:** Topshop suppliers must commit to its Code of Conduct; its suppliers must submit an independent third-party ethical audit; **Sustainability initiatives:** medium activity in environmental sustainability, low activity in social sustainability, no activity in the other fields of action (transparency, and traceability); **Other key activities:** supply chain rationalisation, product design, distribution, marketing;

Some of the sample companies (H&M, Zara, GAP, and UNIQLO) address transparency and traceability issues in their supply chains (including raw materials, processing, and manufacturing). However, it is unclear if these companies are actually able to track their entire supply chains, particularly second and third tier suppliers (e.g. fabric and yarn mills), as none of the sample companies publicly discloses a complete list of its suppliers (Fashion Revolution, 2017). Though without this knowledge it is unlikely that the sample companies can extensively take accountability and truly embrace sustainability beyond their own operations.

Even more importantly, the prevalent tools and measures (corporate codes of conduct and social audits) to address these challenges have been widely criticised due to their inherent systemic and methodological problems and have not yet proven to significantly impact labour conditions in the respective markets (Locke et al., 2013; Anner, 2012; ECCHR, 2016). Corporate codes of conduct and social audits are only voluntary, and therefore, do not involucrate any legal responsibility on the part of the fashion retailers, manufacturers, or auditors. In addition, "due to their methodological makeup social audits have only limited validity as to the real status of working conditions and they are prone to incorrect representation of the reality in factories" (ECCHR, 2016, p. 3). On the contrary, private audits discourage local governments in the production countries to take responsibility, establish functioning frameworks, and pass the required legislations for safeguarding garment workers' rights, health, and safety requirements.

In conclusion, although the sample companies incorporate sustainable activities in the described four areas, this mainly occurs incrementally and has no widespread impact on the companies' key activities. Hence, more fundamental changes are certainly not addressed sufficiently in order to truly embrace sustainability within the companies' BMs.

5.4 Key resources

Key resources describe "the most important assets required to make a business model work" (Osterwalder & Pigneur, 2010, p. 34). In this regard, fast fashion companies draw particularly on human resources, designers, recycled and sustainably sourced materials, distribution networks, a quick and highly responsive supply chain, cheap labour, and (low-cost) sourcing materials.

Within the key resources building block, I find evidence that in order to embrace sustainability the sample companies increasingly replace conventional sourcing materials with more sustainable alternatives, such as organic cotton, Better Cotton, sustainable wood-based fibres, and recycled polyester. While this certainly has a positive impact, it does not address the fundamental environmental and societal problems associated with fast fashion's reliance on a quick and highly responsive supply chain, cheap labour, and a vast flow of sourcing materials, required to ensure a high turnaround of constantly new and affordable collections. Hence, major elements of the companies' key resources are not subject to significant change and the incorporation of sustainability, therefore, remains limited to elements in the periphery of the companies' BMs.

Raw materials and textile fibres, such as cotton, polyester, viscose, wool, linen, hemp or leather represent one of the key resources fashion companies depend on to produce garments and other fashion items. Due to the large impact the cultivation of raw materials and the processing of fibres has on the environment, fashion brands increasingly incorporate more sustainable alternatives, such as recycled or organic materials. This includes, for instance TOPSHOP RECLAIM, a collection made of surplus material and production off-cuts as well as Primark's sustainable cotton collection (Arcadia, b; Primark, 2017). Moreover, Zara, H&M, Topshop, and GAP are members of the Better Cotton Initiative (BCI), a network of NGOs and multinational companies that intends to improve the environmental and social impact of cotton farming (Better Cotton Initiative). Together they introduced Better Cotton as a more sustainable alternative to conventional cotton. According to H&M, Better Cotton, certified organic cotton, or recycled cotton represented already 43 per cent of its overall cotton use in 2016 (H&M, 2017d). By 2030, H&M intends to use only recycled or other sustainably sourced materials (H&M, 2017d). Inditex on the other hand, states that in 2016 it sold 36.7 million fashion items made entirely with certified organic cotton (Inditex, 2017). This makes Inditex the world's fourth biggest organic cotton consumer (Inditex, 2017). As a solution to the environmental challenges of fast fashion, both H&M and Zara actively promote a closed loop fashion system, that aims to make their BMs entirely circular and would, if fully implemented, involve the comprehensive collection and recycling of used garments, and the reintegration of recycled fibres into the production of new garments (H&M, 2017d; Inditex, 2017).

This, however, neglects the technical limitations of textile recycling as well as the accelerated consumption of garments and resources, and its impact on the environment and garment workers. Current recycling technologies are still in an early stage and not yet able to largely recycle textile waste into new fibres, that could be used for the production of new garments (Greenpeace, 2017; McKinsey&Company, 2016a). Estimates suggests, that across the textile industry "only 13 per cent of the total material input is in some way recycled after clothing use" (Ellen MacArthur Foundation, 2017, p. 20). While most of the recycled output is down cycled into isolation materials, wiping cloths or mattress stuffing, only 1 per cent of raw materials and fibres used to produce clothing is recycled into new garments (Ellen MacArthur Foundation, 2017). Furthermore, the BM of the sample companies relies largely on a quick and highly responsive supply chain, cheap labour, and mainly low-cost sourcing materials. These key resources in many ways have negative impacts on the environment and labour conditions, and therefore, are detrimental to sustainability efforts. To deliver frequently new collections and react to emerging fashion trends, the sample companies draw on agile supply chains, that commonly come along with short design and production circles as well as short-term orders. Research on labour conditions in supplier factories indicates that this puts extensive pressures on the companies' suppliers, which ultimately cascades into regular excessive overtime for garment workers (Clean Clothes Campaign, 2016; SOMO, 2017a). Moreover, the companies' reliance on cheap labour, to keep clothing prices low is inhibiting the significant improvement of industry salaries (Clean Clothes Campaign, 2017a). Finally, as consumers are encouraged to buy more and more garments, the ever-growing flow of organic and syntactic textile materials puts massive pressures on the environment and leads to a considerable depletion of natural resources (World Resources Institute, 2017). Cotton farming for instance, requires an extensive amount of water, fertilizers, and pesticides

(McKinsey&Company, 2016a). It accounts for 24 per cent and 11 per cent of global insecticides and pesticides sales, while less than 3 per cent of the world's crop land is actually used to produce cotton (WWF). To make one cotton t-shirt it takes approximately 2,700 litres of water (World Resources Institute, 2017). Polyester, is increasingly used as a cheap alternative to cotton, yet its production requires a lot of energy. According to McKinsey&Company, 1 kilogram of fabric is estimated to generate 23 kilograms of greenhouse gases on average (McKinsey&Company, 2016a). Not only the harvesting of raw materials and the production of textile fibres impacts the environment negatively, but also the dyeing and treatment of textiles. It is estimated that these processes account for up to 20 per cent of industrial water pollution (The Guardian, 2012). Ultimately, neither the people working in the companies' supply chains, nor the environment can sustain the current levels of production and resource use. Overall, these findings show that sustainability is only performed in a symbolic way, as companies do not alter the fundamentally unsustainable parts of the key resources within their BMs.

6. Discussion

This study sought to explore the BMC within the context of corporate sustainability. In particular, it focussed on the integration of sustainability into the firm's BM and the underlying tensions arising from competing and conflicting logics between and within the BMC and the concept of sustainability (Stubbs & Cocklin, 2008; Hahn et al., 2010; 2015; Tregidga et al., 2018). My study is motivated by the following research question: "How do companies change their BMs to embrace sustainability". Drawing on a comparative case study design, I studied a sample of eight companies within the fast fashion industry (Eisenhardt, 1989). My empirical findings show that the selected companies do not significantly alter the core elements of their BMs and embrace sustainability primarily within the periphery of the firms' BMs. Additionally, my findings suggest, that the sample companies face multiple tensions in addressing sustainability across all its three dimensions (economic, environmental, and social). Finally, my data shows that, in general, the BM of the analysed fast fashion industry is in its current structure inherently inconsistent with sustainable development and is rather decreasing value for society instead of increasing it.

From a shallow perspective, the sample companies appear to adopt more sustainable business practices and incorporate sustainability across their activities and policies. The comprehensive analysis of the companies' BMs, however, reveals that the companies perform sustainability mainly in a symbolic way. Building on the BMC of Osterwalder and Pigneur (2010), it becomes evident that although the companies address some sustainability issues within their operations, most of the core elements in all nine BM building blocks are not subject to substantial change. Moreover, my findings show that similarly with Hahn et al. (2015) the companies face tensions inter alia in three areas (level, change, and context) when addressing sustainability. First, I find tensions between the firm and systemic level as the companies' sustainability initiatives often do not meet the environmental and social requirements of the underlying system. Secondly, conflicts emerge as the companies embrace sustainability rather incrementally while sustainable development requires fundamental changes in the companies' BMs. Thirdly, within the context dimension the sample companies face conflicts particularly in the spatial context, as the companies mostly fail to fulfil the requirements of intragenerational equity when operating in regions with distinct environmental and labour standards. Ultimately, my findings suggest that current business practices within the fast fashion industry are inherently unsustainable, and therefore, embracing sustainability would imply a fundamental reconceptualization of the companies' BMs.

6.1 Theoretical contribution

This chapter aims to outline the theoretical contribution of this study to the literature, particularly to the literature on corporate sustainability and its application to the BMC (e.g. Stubbs & Cocklin, 2008).

First, this study contributes to the literature in that it enriches the understanding of how a firms' BM can be applied and adapted to embrace sustainability across the firms' structures and operations. Although the sample companies only partially embrace sustainability within their BMs, my data does provide insights into which elements inside the BM structure organisations tend to adapt or add when addressing sustainability. First, the studied companies place emphasis on incorporating sustainability in their value proposition. As the value proposition describes how a company creates value for its customers, it comprises a fundamental part of the firms' BM. Ultimately, it defines how a company differentiates from its competitors and establishes a unique selling proposition. This confirms academic research that shows, that sustainability is often used as a competitive differentiation (Gupta et al., 2013; Lowitt, 2011). Secondly, as for example described in Porter's and Kramer's shared value theory (2011) my study indicates that companies engage with multiple stakeholders and form alliances in the markets they operate in to create value for society. Thirdly, through accountability efforts and sustainability initiatives companies embrace sustainability within their key activities. Finally, in an attempt to reduce the environmental impact of their operations my findings show that firms address sustainability in the key resources dimension.

Additionally, my findings contribute to challenge the dominant emphasis on the business case for sustainability and win-win outcomes in corporate sustainability literature (Hahn et al., 2010). This research body assumes that in the corporate context the economic, social, and environmental dimensions of sustainability function mostly "in harmony" and organisations usually create win-win solutions - hence benefitting economically - when addressing social and environmental issues (Hahn et al., 2010, p. 218). My study however suggests contractions between the three sustainability dimensions and shows that multiple tensions and conflicts emerge when companies embrace sustainability. Consequently, my empirical findings contribute to the emerging integrative view in corporate sustainability literature that recognises the tensions arising from the complex and contradictory nature of sustainable development and questions the dominant economic-centric narrative in sustainability research (Margolis & Walsh, 2003; Hahn et al., 2010; 2015; Tregidga et al., 2018).

Another important contribution to the literature is that my data gives correctness to the fact that sustainability often is limited to the periphery of organisational functioning (Jones et al., 2012; Tregidga et al., 2018). My analysis suggests that companies embrace sustainability mainly symbolically while the core elements of the companies' BMs remain largely unaddressed. Drawing on the BM canvas concept of Osterwalder and Pigneur (2010), this implies that sustainability is left at the periphery of each BM building block. For instance, although the companies do incorporate sustainability within their value proposition, this is barely connected to its core elements. Sustainability is rather treated as an independent add-on to the firm's value proposition, that ultimately only serves to convey a positive image and generate additional profits. Moreover, in the key resources building block sustainability is addressed in some marginal areas, however, the companies' key resources are not subject to significant change and the incorporation of sustainability therefore remains limited to elements in the periphery of the companies' BM. Within the BM's key activities and key partnerships, I observed similar patterns. In conclusion, this study complements the existing research as it shows that companies tend to follow a dominant economic logic while sustainability is only peripherally embraced.

7. Conclusion

The purpose of this thesis was to enhance academic theory on corporate sustainability and its integration in the BMC. My study addressed the following research question: "How do companies change their business models to embrace sustainability?". Drawing on a comparative case-study design (Eisenhardt, 1989) I analysed a sample of eight companies in the fast fashion industry. To answer my research question, I collected data inter alia from sustainability reports, annual business reports, online publications, industry reports, newspaper articles, research reports from human and labour rights organisations, NGOs, and labour and trade unions, as well as company or sector specific academic literature. Overall, my findings suggest that the analysed sample companies embrace sustainability mainly in the periphery of their BMs. That is, companies tend to address sustainability issues in a pure symbolic way. Moreover, my research shows that altering the BM to embrace sustainability implies tensions within the companies' logics. Finally, the detailed analysis of the companies' BM elements indicates that the fast fashion BM is in its current structure inherently unsustainable.

One major limitation of this study is that it draws on a rather homogenous sector specific sample. Although the fashion industry has widely adapted some of the central characteristics of the fast fashion BM, the findings of this thesis might not be applicable to the fashion industry as a whole. Another limitation relates to the data collection. As annual sustainability and company reports usually present insights on corporate sustainability from the perspective of the parent company, the actual sustainability performance of the studied brands may deviate to a certain degree from the stated information. However, in all cases the selected brands constitute the main brands of each parent company, and therefore, most likely the information in sustainability reports and alike is representative to the main brands. Moreover, in most cases I used multiple sources to verify the data.

Future research could expand the study to other sectors of the fashion industry and different BM approaches. For instance, it would be insightful to study the BMs of companies in the slow fashion sector, as slow fashion constitutes a rather opposing concept to fast fashion in that it much more incorporates social and environmental sustainability in its business practices (Fletcher, 2010). It would be interesting to examine how slow fashion companies structure their BMs to embrace sustainability across all its three dimensions and compare its BM structure with the one of fast fashion companies analysed in this study.

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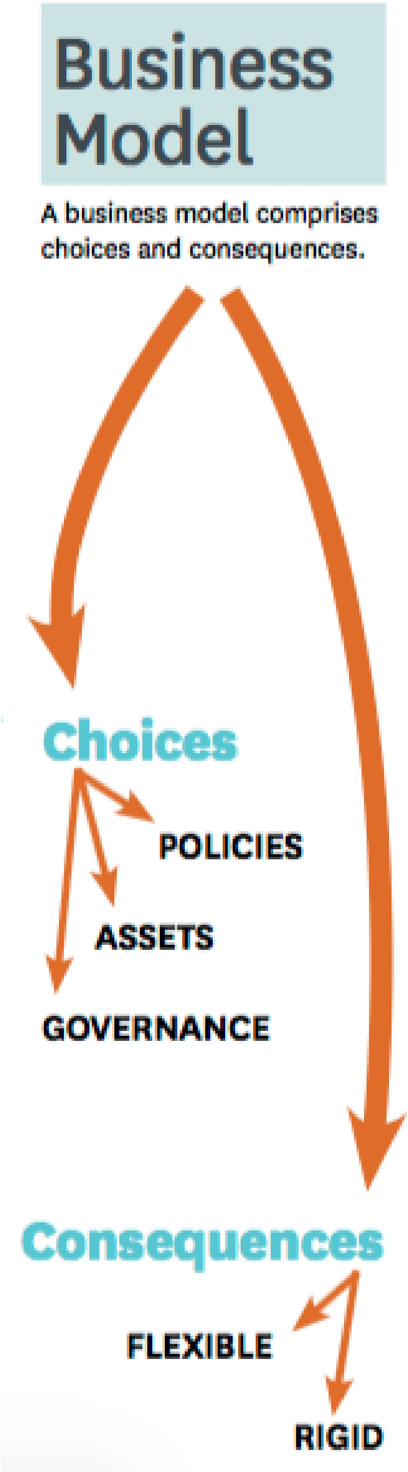
Appendix

Appendix 1: The business model of Casadesus-Masanell and Ricart (2011)



Appendix 2: Fast fashion frequency count by Caro & Martínez-de-Albéniz (2015)

	number of appearances in Factiva search		number of appearances in PDF online search	
Specialty apparel retailer	rank	% appearances	% appearances	rank
H&M	1	31.7%	41.0%	2
Zara/Inditex	2	29.2%	45.9%	1
Gap	3	11.9%	18.2%	3
Uniqlo/Fast Retailing	4	9.9%	9.4%	8
Topshop	5	9.3%	13.7%	4
Forever 21	6	7.5%	11.2%	6
Mango	7	4.3%	12.4%	5
Wet Seal	8	3.2%	0.6%	16
Benetton	9	3.1%	10.1%	7
New Look	10	2.8%	6.2%	9
Esprit	11	2.8%	4.7%	10
C&A	12	1.9%	4.7%	11
American Apparel	13	1.2%	2.6%	13
Urban Outfitters	14	0.9%	2.8%	12
Peacocks	15	0.5%	1.1%	15
Charlotte Russe	16	0.5%	0.2%	17
Armani Exchange	17	0.3%	1.5%	14