

Review

# Sustainability within Fashion Business Models: A Systematic Literature Review

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**Abstract:** Production, marketing, and consumption of fashion products result in negative environmental impacts due to the massive production volume of fashion items. However, there is limited literature on how the fashion industry integrates sustainability-related practices into business models, how sustainability is measured within the business models, or what drives the sustainability-emphasis of the fashion industry. Therefore, it is consequential to conduct a systematic review of the existing literature concerning how the fashion industry integrates sustainability into business models, if and how sustainability-related practices are measured to ensure transparency and lead to improvements, and to recognize what drives sustainability in fashion business models. The key aspects regarding sustainability integration into business models include organization values, entrepreneurship, innovation, and internationalization processes. With regards to measurement of impacts and reporting, it is evident that Corporate Social Responsibility, the Global Reporting Initiative, and the Apparel and Footwear Sector Supplement are of relevance for the industry, mainly with regards to the supply chain. The drivers influencing sustainability practices are government and regulatory pressure, market pressure, closed-loop pressure, value creation, innovation, equity, authenticity, functionality, localism, and exclusivity. The findings are of relevance both for academia and the fashion industry, as the paper provides evidence on what has already been studied by academia, but also highlights a need for further studies on the fashion industry with regards to sustainability practices. This paper; therefore, opens a path for academics to consider empirical studies on how to investigate the sustainability strategies of fashion businesses, elements of fashion business models, driving forces influencing actions, measurements, key performance indicators, transparency, and disclosure, just to name a few examples.

**Keywords:** business model; fashion; sustainability; measure; driver; report

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## 1. Introduction

Negative environmental impacts, such as climate change, highlights the importance for businesses to solve the issues since they are significant drivers of these impacts. The discussion in recent years of the importance for business sectors to formulate reliable strategies of how they expect to prevent pollution they cause, and how they intend to utilize natural resources in the future, has become more intensified [1]. This discussion also relates to the fashion industry, as it has, over the last few decades, treated the natural resources as a “bottomless pit” [2] (p. 245), and production processes are mainly about “make and waste” (p. 245). Such attitude provides incentives for sustainability information-driven behavior and calls for a clear focus on circularity in the production process, throughout the entire organization [2,3]. A strategy for environmental practices in the organization is a “matter of perspective” [4] (p. 23) and managers are urged to look inside the company to examine

if there are valuable resources in the trash barrels or the waste streams. Additionally, to realize that environmental responsibilities and codes of conduct do not diminish across nations and borders [4], although companies operate in different countries around the world.

The sustainability agenda has developed over the last four decades and emphasized collaboration between governments and organizations within society, by implementing strategies with a focus on sustainability related-issues [5], and for the first time, through the Paris agreement, governments are responsible for such collaboration to mitigate climate change and pollution [6]. Companies can have a positive impact on stakeholders when it comes to corporate responsibility, such as by implementing sustainability strategies to deal with the environmental problems they may cause. These actions can lead to a growth opportunity and cost reduction for companies or even a competitive advantage [7]. The process of operationalizing new strategies (i.e., strategies for sustainability) requires altering business models as the business drivers are no longer the same, otherwise the innovation processes are likely to fail if organizations' leaders use their current business models for their new strategies [8].

The fashion industry has been accused of taking limited responsibility for its behavior towards addressing sustainability-related issues, such as in the context of the climate change discussion [9–11], and over-consumption of natural resources, due to its production and marketing strategies [9]. This leads to a discussion about sustainability in general. It is; however, a sensitive issue because the industry relies on production in low-cost countries [10] where environmental and safety regulations may be weak [12]. For example, cotton manufacturing requires a significant amount of water [9], as over 19,000 liters of water is used to produce one pair of jeans and a T-shirt. This is a significant issue given the scarcity of clean water in some parts of the world [12].

Environmental issues caused by the industry also includes a huge disposal problem. The industry controls the clothing life-cycle where relatively new garments are thrown away, not because they are worn out, but because they become out of fashion due to the industry marketing strategies [9]. Due to the issue, members of the fashion industry call for action. In this regard, the industry is encouraged to act on environmental issues more responsibly [11,12], mainly as the industry still relies on linear business models, where the environmental impacts are externalized [13]. The linear model is all about “take, make waste” [3] (p. 48). Blowfield and Murray [14] point out that even though companies change their business models from linear to circular business models, in order to focus on sustainability, it is essential to focus on a specific driver for end-use of the product in the model. In the case of fashion products, such a driver is generally missing in the design process or at the end-of-life stage of the products. The Foundation of Ellen MacArthur [15], hence, encourages corporations to rethink the products' end-of-life [end-of-use of the products] when they alter their business models. De Brito et al. [10] points out how sustainability is a sensitive issue in the fashion industry, especially within the supply chain. Based on these assumptions [3–13], the paper seeks to analyze key concepts to sustainability and business models within the fashion industry. Additionally, to contribute a better systematization in the field of sustainable fashion, and by comparing present studies to prominent content in the research field. Currently, there is limited information on how the fashion industry assumes responsibility for its consumption, waste, and the end-use of the product in the business models.

This study aim is; therefore, to obtain a better understanding of the literature of how the fashion industry integrates sustainability within its business models, investigate if sustainability-related practices are measured to ensure transparency and improvement, and recognize what drives sustainability in fashion business models. This is done by analyzing various studies to identify what types of studies have already been carried out with regards to integration of sustainability emphasis into fashion business models, what kind of research gaps exist in the field of sustainability and fashion business models, and to answer the following sub-research questions:

1. How is sustainability measured and/or reported in the fashion business models?
2. What drivers influence sustainability within the fashion business models?

A systematic literature review was carried out to map the existing knowledge about sustainable business models, mainly to identify how the industry integrates sustainability into its business models what drives sustainability within fashion business models, and how the results are measured or reported upon. The findings are of relevance both for the academia and the fashion industry, as the paper provides evidence on what is already been studied by academia, but also highlights the need for further studies on the fashion industry with regards to sustainability practices. The structure of the paper is as follows: In Section 2 there is a brief review of the relevant background of the fashion industry, business models in general, integration of sustainability-related practices in business models, and drivers for sustainability in fashion business models. The research method is explained in Section 3, the findings are presented in Section 4, and discussion and conclusion are presented in Sections 5 and 6.

## 2. Background

The constant growth of the fashion industry and its unsustainable behavior is negatively affecting the environment. The global industry accounts for around two percent of the world's gross domestic product (GDP) and is worth over three trillion dollars [16]. The fashion industry is a broad industry and is regularly divided into slow and fast fashion [17], which includes, for instance, textiles, apparel or clothing and footwear [17]. Some authors have speculated on the differences between slow and fast fashion, and have concluded that fast fashion emphasizes massive production, low price, and marketing, where the aim is to deliver new trends every other week in stores all year round [18], while slow fashion focuses on quality instead of quantity [19]. To give an example of the slow fashion production process, it takes up to nine months from the idea of the product to be ready for consumption [20]. Despite that, slow fashion companies have been dealing with overproduction and accusations of disposing old items of clothing instead of giving it away to charity [21]. It is a concern for the fashion industry, whether it is a slow or fast fashion, especially those operating within the European Union since the European Commission is revising its waste policy 2008/98/EC and laying emphasis on legislation, which stipulates action that supports the circularity of the economy [22]. Claudio [9] discusses how much consumers dispose of new clothes "simply because its stylistic norms promote their obsolescence" (p 451), and how this wastage matches economic growth. It is considered an extensive problem. For instance, figures from Scandinavia show that, annually, around 145,000 tons of disposed clothes end up in landfill or incinerators. This compares roughly to the amount of new clothing placed on the market annually [23]. Comparing these figures with markets in the United States (US) and the United Kingdom (UK) gives an idea of how large the problem is. UK consumers buy more than one million tons of clothing annually. Around 50 percent ends up in a landfill, while the other half is recycled or sold in vintage or charity shops [24]. In the US market, consumption is significantly higher, where the annual waste of clothes is around 23.5 million tons each year, 10 percent are qualified for resale and the rest, or 90 percent, ends up in a landfill or are given to charity [25].

### 2.1. Business Models

Business models are the framework and description of how organizations create, deliver, and capture value and they shape effective strategies for expected performance [26]. In order to keep the focus on value creation, on cost and profits, market value proposition, customers' needs, and expectations and competitive strategy [27–30], companies also use business models as a tool to define their customers and to measure values [31].

Each company has a different method or a process for its business model, but there are standard elements which should be considered when business models are structured and designed. These elements are people, strategy, structure, process, and reward [30]. The first element, according to Osterwalder and Pigneur [30], is the people within the organization and how human resources, employees' skills, mindset, and culture must merge with the organization's core strategies. The second element, the strategy, discusses the organization direction regarding performance and competitive position regarding "key activities and customer segments" (p. 270). The third element is the structure,

and it discusses how the organization presents its structure in the business model and “what type of structure is required” (p. 271). The fourth element, the process, outlines the design, implementation, and the business model’s evolution by knowing the company’s internal and external environment by “mapping the main areas: (1) market force, (2) industry force, (3) key trends, and (4) macroeconomic force” (p. 200). The fifth element is a reward, with the focus on how companies’ managers should reward management and employees. If the organization intends to reach its goal, employees must be inspired and encouraged. Reward discusses the human resource management (HRM) and how employees must be inspired by the reward throughout the organization or in all departments of the organization. Hence, in order to create a good and reliable business model, each of those five elements needs to work together [30] (p. 271). The critical point in the design process is how organizations intend to gain and hold a competitive advantage [26] by following the organization’s core strategy and define it differently than its competitors [32].

As mentioned earlier, business models are a strategic tool for organizations regarding how they intend to gain profit and communicate with internal and external stakeholders [30]. Business models relate to the value chain and describe the process of the sale of products, distribution and delivery, and how organizations perform services to the customer [31]. In a study from 2005, carried out by Osterwalder, Pigneur, and Tucci [33], they discuss four pillars and nine-building blocks for business models (see Figure 1). They call these pillars “product, customer interface, infrastructure management, and financial aspects” (p. 10), and argue how companies should give each building block attention in the value creation. For example, the customer interface describes how companies should target its customers, what distributions channel are used for customer interaction, and how the customer’s relationships might differ between customer segments. This description of each building block depends on the business type, and each block needs to be tailored for every single organization, their financial aspects, and infrastructure management, such as their network of partners, core competencies, and the value configuration [33].

Pillar	Business model Building block	Description
Infrastructure management	Value configuration	<ul style="list-style-type: none"> <li>▪ The arrangement of activities and resources</li> <li>▪ The competencies necessary to execute the business model</li> <li>▪ The network of cooperative agreements</li> </ul>
	Core competency	
	Partner network	
Customer interface	Target customer	<ul style="list-style-type: none"> <li>▪ The segments of customer value</li> <li>▪ The links between the company and different customer segments</li> <li>▪ The way to get in touch with customer</li> </ul>
	Relationship	
	Distribution Channel	
Product	Value proposition	<ul style="list-style-type: none"> <li>▪ The company’s bundle of products and services</li> </ul>
Financial aspects	Cost structure	<ul style="list-style-type: none"> <li>▪ The monetary consequences of the means employed in the business model</li> <li>▪ The way a company makes money through a variety of revenue flow</li> </ul>
	Revenue Model	

**Figure 1.** Nine business model building blocks, adopted from [33] (p. 10).

In the process of designing business models, company managers tend to get carried away in market research instead of focusing on customer value, their daily routine, their environment, and their interest [30,34]. Wirtz, Göttel, and Daiser [35] discuss their concern of how business models are evolving, especially if the company’s attention is on gaining a competitive advantage instead of

focusing on customer value, their perspective, and needs. Companies attention should also be placed on how the customer value proposition (CVP) is put forth, by answering the question “what are the target market segments and what does the customer want?” [36] (para. 8). Gassmann, Frankenberger, and Csik [37] emphasize how the literature has not yet proposed a valid suggestion regarding what building block should be included in business models and proposed a triangle model to put forth those elements. They support the importance of elements for revenue, or how the income and profit ought to be the principal focus in the design process, followed by the value proposition, or how companies intend to create value for their customer. The four essential questions managers must ask are; (1) What is the company offering to the customer? (2) How is the value created? (3) Who is the target customer? (4) How is the revenue created? These questions are the main structure of the business model triangle, and a platform for value creation between producer and consumer [37–39], as shown in Figure 2.

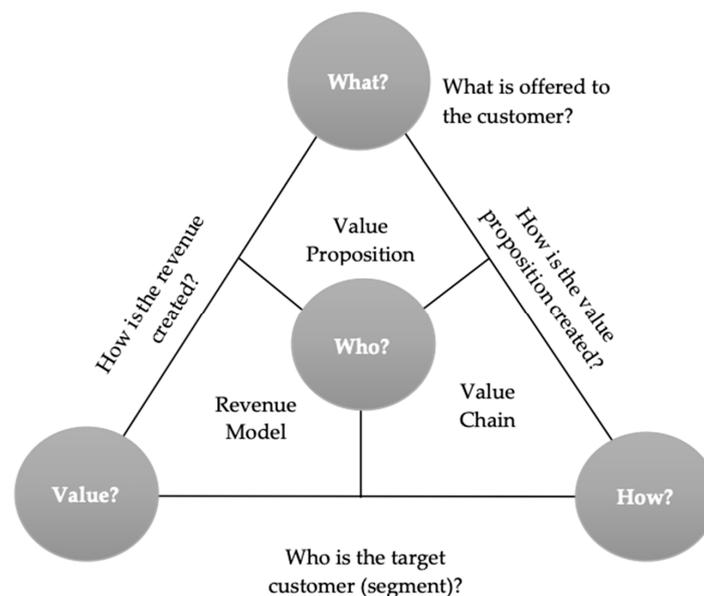
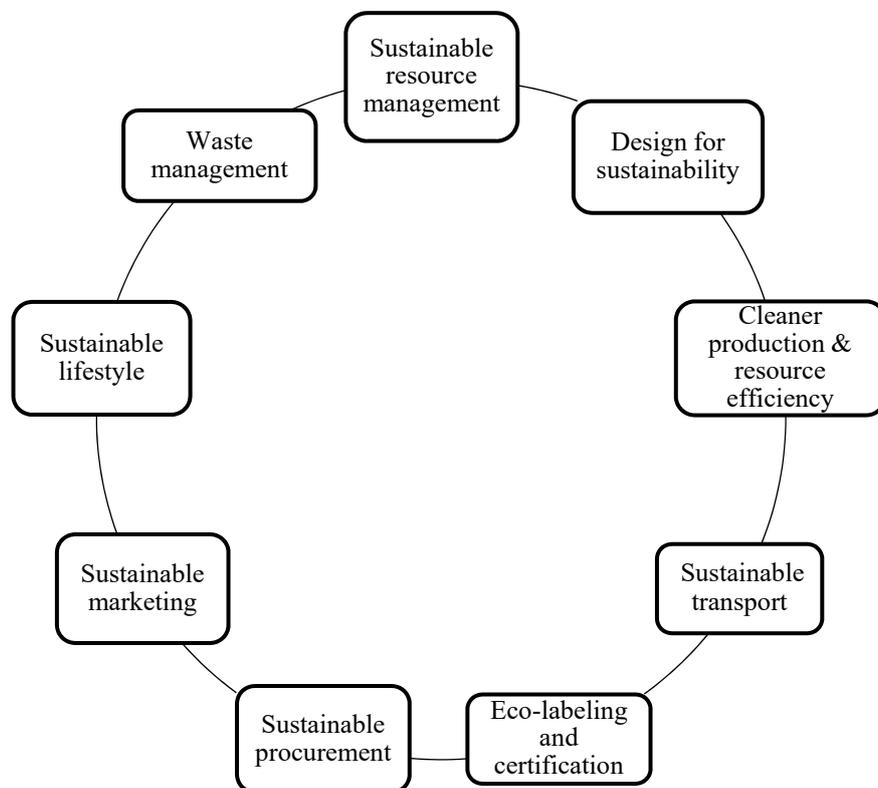


Figure 2. The business model triangle adopted from [37] (p. 2).

The discussion regarding the differences between linear and circular business models highlights the life-cycle way of thinking in the circular model. This is where the focus is on the production process from the cradle-to-grave, or from raw material to the end use of the product [40], versus cradle-to-cradle type of processes. A better environment is encouraging for everyone living on the planet [11] if cradle-to-cradle process is emphasized. There is an invocation of action for organizations to protect natural resources as it is not “enough to do something it has to be done better and more quickly than by the companies’ competitors” [41] (p. 2). To gain environmental success, it is essential to educate consumers, employees, and fashion businesses about their environmental responsibility regarding reuse, recycling, and disposal methods [42–44]. The Ellen MacArthur Foundation [15] encourages businesses to rethink the product’s end-of-life in business models by adapting the circular economy (CE) way of thinking. Such operations require new business models for implementing circular strategies [8,45]. Rizos et al., for instance, discusses how companies do not always have full bargaining power and “capacity to implement the circular solution themselves” [46] (p. 12). “The government has also an important role to play” [45] (p. 15) dealing with such strategic issues. Government policies need long-term planning, legislations, and government support to stimulate circularity among businesses [46].

One of the tools that businesses can use to improve sustainability, and to underline the circular economy, is the Sustainable Consumption and Production (SCP) cycle. The SCP cycle has nine “key principle” [47] (p. 10), and it encourages a circular way of thinking by supporting environmentally friendly consumptions, with a focus on resource management, design for sustainability, cleaner

production and research efficiency, eco-labeling and certification, sustainable marketing and lifestyle, and waste management (see Figure 3). Businesses can use the cycle as a guideline to create a strategy for sustainability in order to improve environmental performance in business models, as it is grounded in life-cycle thinking. It highlights how the manufacturers must think of their production process as cradle-to-cradle (i.e., from raw material to the end use of their product) [47].



**Figure 3.** The Sustainable Consumption and Production (SCP) cycle, adopted from [47] (p. 11).

Business models, except in the case of cradle-to-cradle models, do not include a component of how companies consider the end-use of the product or how companies deal with waste. Blowfield and Murray [14] emphasize the importance for businesses to include sustainable practices throughout their business models. Evans et al. [48] agree and raise the question if the value of sustainability, such as the overall economy, the environment, and the social dimension should have a specific factor in business models, in order to be addressed more explicitly as one of the core drivers in the business model.

The Ellen MacArthur Foundation [3] describes linear processes in business models as “all about take, make waste” (p. 48). Johannsdottir [49], discusses the linear process in her study where the closed-loop business models for the “service and manufacturing” (p. 353) sectors are debated. She verifies the need for a different approach for each business sector since their activities requires different “material and energy” [49] (p. 353). Three main elements in the linear model in her study are: (1) input, (2) the firm itself and its processes, and (3) the output. The first element in the model, input, defines the material from both domestic and from overseas markets, that companies use in their production. The second element focuses on the firm itself, material throughput, and recycling (see Figure 4). The third factor, the output, shows the effect of waste and emissions from the firms’ production [49].

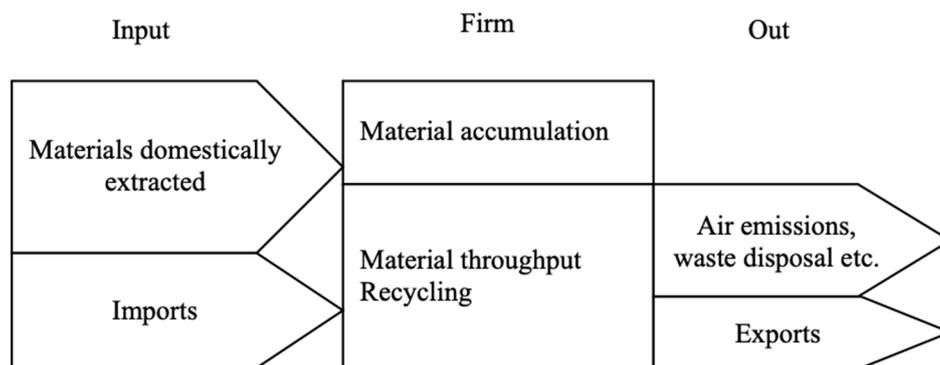


Figure 4. Material flow in a linear process adopted from [49] (p. 344).

## 2.2. Integrating Sustainability Practices in Business Models

Social and economic factors are significant elements in the sustainability equation and an essential addition to companies' business models. It requires a new strategy to deal with the sustainability-related issues in business models [29]. Issues caused by companies include human rights, abuse, disposal problems, social, and economic factors [10]. The strategy must fit the actual organizational structure, capabilities, and resources to guarantee good results and requires a new design of business models [8]. It is not enough to add the new strategy into current business model since the business drivers are no longer the same [8]. Boons and Lüdeke-Freund [50] discuss how critical it is in the implementation process to analyze both internal and external drivers, especially with regards to the value proposition. Social and economic factors are significant elements in the sustainability equation and an essential addition to companies' business models [29]. Until now, environmental issues have been defined rather narrowly, which highlights the importance of measuring sustainability factors regularly within business models [51]. It is equally important to measure a company's environmental performance as it is to measure financial performance [4].

Hoffman [4] draws attention to five elements as drivers when forming a new strategy to tackle sustainability-related issues: (1) coercive drivers, including laws and regulations, and international regimes; (2) resource drivers, such as buyers, suppliers, shareholders, investors, and financial institutions; (3) market drivers, including consumers, trade associations, competitors and consultants; and (4) social drivers, such as environmental non-governmental organizations, the press, the courts, religious institutions, the academia, the community, and more. The underlying driver for sustainability in business models should address the organizations' economic success, social success, and their environmental activities [8]. A business model ought to be the organization's roadmap towards solving environmental sustainability-related issues, aiming to educate customers, employees, and marketing experts within the company about their responsibility towards the environment [49]. Hence, the motivation for the environmental approach should be: (1) financial benefits, (2) ethical motivation, (3) ownership, (4) market pressure, (5) social pressure, and (6) peer-pressure for sustainability [44].

Kerr and Landry [13] call the fashion industry to action, as organizations within the industry are still presenting linear business models, without factors for environmental and social impacts. It is urgent to act, especially since a growing population puts pressure on the environment and resources [52]. A study was carried out, according to Kerr and Landry [13], by Global Fashion Agenda (GFA) and the Boston Consulting Group (BCG) for the Fashion Summit in Copenhagen in 2017. Participating were 91 global senior managers responsible for sustainability across fashion organizations. The result indicates that 78 companies still use traditional linear business models in fashion—highlighting “take, make, waste” [53] (p. 48) as previously mentioned. But only 13 companies emphasized sustainability within their business models, out of the 91 organizations researched. The study revealed that few companies have a specific driver for rental services in their business models, offering customers the chance to rent new clothes for a special occasion [13].

### 3. Systematic Literature Review (SLR) Methodology

To identify sustainability elements in business models, and to summarize published research on the topic, a systematic literature review (SLR) methodology was carried out [54]. The main purpose of this literature was to detect and discuss research trends and gaps of sustainability integrations within the fashion industry, how the industry measure or reports the results to improve transparency and improvement, and to investigate what drives sustainability within fashion business models. A systematic literature review (SLR) is a broad review, where a planned and structured approach is used to review published academic articles [54]. It provides:

“a systematic transparent means for gathering, synthesizing, and appraising the findings of studies on a particular topic or question. They aim to minimize the bias associated with single studies and nonsystematic reviews. They can include many types of studies from diverse disciplines.” [55] (p. 1)

In this case, the research was carried out following a systematic literature review (SLR) as understood by Jesson, Matheson, and Lacey [54]. It followed the six stages as a key phase of a systematic review (p. 108):

1. Mapping the field through scoping a systematic review
2. Comprehensive search
3. Quality assessment
4. Data extraction
5. Synthesis
6. Write up

A research plan was developed to define the research questions, keywords, and a set of inclusion and exclusion criteria [54] (p. 108). The study aims to obtain a better understanding of the literature of how the fashion industry integrates sustainability-related practices within its business models, if such practices are measured to ensure transparency and improvement, and to investigate what drives sustainability in fashion business models. The main interest is to find out to what conclusions other researchers have come to regarding the integration of sustainability-related practices, what measurements are carried out, and how researchers have discussed what drives sustainability within fashion business models. The search was based on secondary data and was two-fold. The first search was performed in 2017 and the second in 2018. The search carried out in 2017 was unsatisfactory, since only three articles covering sustainable fashion were found. Despite the fashion industry being under pressure to manage irreversible environmental damage, including the sustainability-related issues that the businesses are causing, the body of literature on sustainability strategies and drivers for business models in fashion and how it is measured have, overall, been neglected in scholarly research (see Table 1). Therefore, a more detailed search was carried out in 2018, with a different focus on the business models, integration of sustainability-related practices within fashion business models, how the industry measures the result regarding sustainability actions, and drivers influencing actions.

The SLR approach was, in nature, inductive, as categories were modified and classified during the review progress. A delimited search was performed by the use of inclusion and exclusion search criteria [54]. The inclusion criteria were; the ProQuest database, as it covers a large share of studies available, full-text and peer-reviewed papers written in English, keywords are “Business model” and “Fashion” (quotation marks were included in order to prevent the possibility of the database excluding articles for writing style). In the second part, keywords were combined using and Sustainability and Measuring. Publication period was set from 2000 to 2018. The exclusion criteria at this stage were papers written in another language than English, published in scholarly before the period in question, as the search did not yield any papers related to sustainability within the fashion industry before 2000. This period should; therefore, cover relevant papers in the field. The first step that was performed

on ProQuest with the specific keywords “Business model” and “Fashion” and Sustainability and Measuring, got 422 hits. After reading titles and abstracts, a number of articles were excluded, since they were unrelated to fashion business models and sustainability. In the second step, 300 papers were excluded after reading titles, abstracts, and keywords, as the papers did not relate to the concept of business model, sustainability, measuring, or reported sustainability. During the third step, 29 articles were analyzed further by reading titles, abstracts, keywords, and conclusions related to the topic (see Figure 5). Finally, in the fourth step, authors carefully read through the 29 selected papers for their compatibility to scope of the study. Ten papers were removed. After the examination, 19 full-text papers were analyzed, reviewed, and grouped regarding the focus of the study.

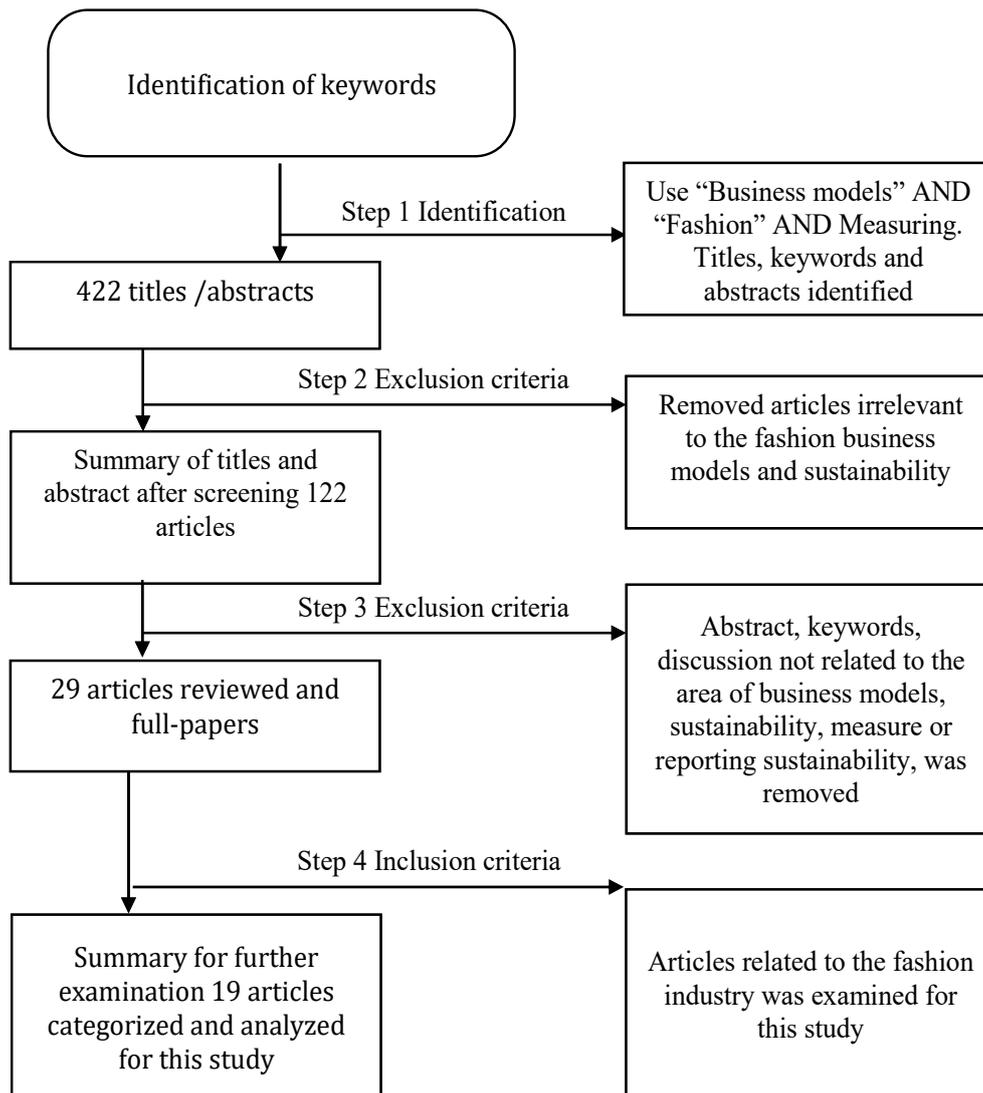


Figure 5. Flow chart of research process.

To analyze further the content of the 29 articles identified in step three, all articles were grouped according to each article research focus, categorized by their keywords and industry. The articles that are marked with gray color in Figure 6 have relevance for this particular study, since they focus on business models, fashion, and sustainability, other articles, marked with white color, were excluded during this step, thus the final number of articles were 19 as stated above.

Year	Author(s)	Industry	Keywords												
			Business model	Corporate social responsibility	Consumer behaviour	By countries	Environmental issues	Fashion	Fashion trendsetting	Measuring, reporting	Value co-creation and creation	Sustainability	Sustainability knowledge, Circular economy	Supply chain management	
2011	Sorescu, et. al	Retail / fashion	X					X			X				
2012	Hiller Connel; Kozar	Textile industry			X	X		X				X	X		
2012	Kirby	Education										X			
2013	Sriram, et. al	n.a										X			
2013	Kim, et. al	Fashion Industry				X		X							
2013	Westerlund	Entrepreneurs / fashion	X								X	X			
2014	Wong	Non- financial risk management					X			X		X			
2014	Pedersen, et. al	Nordic Fashion		X								X			
2014	Schneider, et. al	Multi-industry										X			
2015	Ristimäki; Junnila	Finnish Urban development										X			
2015	Hyo Jung; Tun-Min	Fashion Industry			X			X				X			
2015	Pedersen, et. al	Fashion Industry	X	X								X			
2015	Wilson	Textile Industry				X		X						X	
2015	Hill; Hyun-Hwa	Fashion Industry						X							
2015	Kozlowski, et. al	Apparel brands						X	X		X				
2016	Park; Kim	Fashion industry						X	X		X				
2016	Lang, et. al	Retail / fashion industry										X	X		
2016	Jung; Jin	Fashion Industry						X				X			
2016	Da Giau, et. al	Fashion Industry		X				X							X
2016	Lueg, et. al	Multi-industry		X						X					
2016	Montabon, et. al	n.a		X		X						X			
2016	Gözedem; Öztürk	Luxury brand						X				X			
2016	Eriksson, et. al	Electronic industry		X								X		X	
2016	Borland, et. al	Technology	X					X				X			
2017	Guercini, et. al	Fashion Industry	X					X							
2017	Yang, et. al	Fashion Industry			X			X				X			
2017	Workman, et. al	Fashion trendsetter		X					X			X			
2018	Pedersen, et. al	Fashion Industry									X	X			
2018	Casali, et. al	Australian Nascent firms									X	X			

Figure 6. Shows the 29 papers in step three, grouped by industry and keywords of their research.

All 19 articles selected for this study were categorized based on the focus of each research paper and findings. After the analysis, three themes were identified: (1) integration of sustainability-related practices within fashion business models, (2) measurement and reporting, and (3) sustainability drivers influencing fashion business models.

As discussed above, the search frame included peer-reviewed papers from between 2000 and 2018, written in English and published in scholarly journals. Papers related to the keywords in the search were published from 2011 to 2017. Out of the 19 papers, Emerald published nine journals; Elsevier issued one, one by Springer, and four by Springer Open, three by MDPI, and one by Technology Innovation Management Review, as shown in Table 1. These articles were classified according to the aims of the study, see further discussion in Section 4.

**Table 1.** Published papers from 2011 to 2017.

Publisher	Journals	Year	Titles
Elsevier	Journal of Retailing	2011	Innovations in retail business models
Emerald	International Journal of Sustainability	2012	Sustainability knowledge and behavior of apparel and textile undergraduates
Emerald	Journal of Fashion Marketing and Management	2013	The motivation drivers of fast fashion avoidance
Emerald	International Journal of Productivity and Performance	2014	Corporate sustainability reporting in the apparel industry
Emerald	An International Journal	2015	Integrate reporting with corporate social responsibility (CSR) practice: A pragmatic case study
Emerald	Journal of Social Responsibility	2015	Is fast fashion sustainable? The effect of positioning strategies on consumers' attitudes and purchase intentions
Emerald	Journal of Fashion and Marketing Management	2015	Sustainability practices and web-based communication:
Emerald	Journal of Fashion and Marketing Management	2015	Sustainability innovators and anchor draggers: A global expert study on sustainable fashion
Emerald	Journal of Fashion and Marketing Management	2015	Sustainability brand extensions of fast fashion retailers
Emerald	International Marketing Review	2017	Extreme luxury fashion: Business model and internationalization process
MDPI	Sustainability	2016	Sustainable development of slow fashion business: Customer value approach
MDPI	Sustainability	2017	Fashion trendsetting, creative traits and behaviors, and pro-environmental behaviors: Comparing Korean and U.S. college students
MDPI	Sustainability	2017	Sustainable Retailing in the Fashion Industry: A Systematic Literature Review
Springer Open	Journal of Business Ethics	2014	From resistance to opportunity: Strategic response to institutional pressure for corporate social responsibility in the Nordic fashion industry
Springer Open	Journal of Textiles and Clothing Sustainability	2015	The sustainable future of Scottish textile sector: Challenges and opportunities of introducing a circular economy model
Springer Open	Fashion and Textile	2016	An empirical test of the triple bottom line of customer-centric sustainability: The case of fast fashion
Springer Open	Fashion and Textile	2016	Creativity and sustainable apparel retail models: Does consumers' tendency for creative choice counter-conformity matter in sustainability?
Springer	Journal of Business Ethics	2016	Exploring the relationship between business model innovation, corporate sustainability, and organizational values within the fashion industry
Technology Innovation Management Review (TIM) Lecture Series	Technology Innovation Management Review	2013	Green business models to change the world: How can entrepreneurs ride the sustainability wave?

#### 4. Findings

After classifying the articles related to the search themes, (1) integration of sustainability within fashion business models, (2) measurement and reporting, and (3) sustainability drivers within the fashion business models, 19 full-text articles were analyzed. They covered several aspects related to business models in the fashion industry, including the sustainability of fashion and how sustainability is, or should be, measured by fashion companies. Four papers covered sustainability within fashion business models, nine papers addressed sustainability drivers within the fashion industry, and three papers focused on how the fashion industry measures or reports on sustainability.

The findings will be presented in three categories, in this order: (1) integration of sustainability within fashion business models, (2) sustainability drivers within the fashion business models, and (3) how the fashion industry measure or report sustainability. They are presented in Table 1, Table 2, and Table 3, and are categorized by author(s), years, publisher and titles. In Table 2 the literature for sustainability within fashion business models will be discussed. Four articles resulted in the search.

**Table 2.** Literature for integration of sustainability-related practices within fashion business models.

Author(s)	Year	Publisher	Titles
Sorescu, Frambach, Singh, Rangaswamy, and Bridges [56].	2011	<i>Journal of Retailing</i> Elsevier	Innovations in retail business models
Westerlund [57].	2013	<i>Technology Innovation Management Review</i> TIM Lecture Series	Green Business Models to change the world: How can entrepreneurs ride the sustainability wave?
Guercine and Milanesi [58].	2016	<i>International marketing review</i> Emerald	Extreme luxury fashion: Business model and internationalization process
Pedersen, Gwozdz, and Hvass [59].	2016	<i>Journal of Business Ethics</i> Springer	Exploring the relationship between business model innovation, corporate sustainability, and organizational values within the fashion industry

**Table 3.** The literature on how the fashion industry measures and reports sustainability.

Author(s)	Year	Publisher	Title
Kozlowski, Searcy, and Bardecki [60]	2014	<i>International Journal of Productivity and Performance</i> Emerald	Corporate sustainability reporting in the apparel industry
Lueg, Lueg, Andersen, and Dancianu [61]	2015	<i>An International Journal</i> Emerald	Integrated reporting with corporate social responsibility (CSR) practices: A pragmatic, constructive case study in a Danish cultural setting
Park and Kim [62]	2016	<i>Fashion and Textiles</i> Springer	An empirical test of the triple bottom line of customer-centric sustainability: The case of fast fashion

The first article is written by Sorescu, Frambach, Singh, Rangaswamy, and Bridges in 2011 [56], and is a theoretical and empirical study with the purpose of offering retail businesses a guiding framework for sustainability innovations to gain competitive advantage. The focus is on the retail business models (RBMs), business model strategy, design theme and process, and value creation by focusing on drivers and barriers. The authors point out the importance of focusing on growing competitiveness and customer expectations and how a customer-centric orientation should be the internal driver of the business model's innovation process. They draw attention to the importance

for the retailer to think strategically about the innovation process and suggest three-elements as the concept of the RBMs, the “format, activities, and governance to make a business model innovation a potentially powerful source of competitive advantage” (p. S12). They also propose a framework of three themes for the process, and draw attention to three of them as a guideline for retailers. These are “new technology” (p. S8), “new customer trend and maintain organizational flexibility” (p. S14). The author’s recommendation for retail companies is to sustain the strategic thinking for the next business models’ innovations or as “soon as the current one is implemented” (p. S14).

The second article is written by Westerlund [57], where he focuses on entrepreneurs and sustainable business models. The article highlights five advantage elements for sustainability in business models. These are market, financial, innovation, compliance, and stakeholder benefits. The author discusses how organizations benefit from implementing strategies for sustainability, and how they can learn from other organizations who have “embraced sustainability and have pursued green innovations” (p. 54). When it comes to the topic of competitive advantage, the author agrees with the importance of changing the mindset within the organization and the business model. The author emphasizes how organizations can learn from each other and from those who have implemented sustainability practices into their business models. Westerlund [57] explains the sustainability innovation process for business models or green businesses in seven steps:

1. Move early, especially where sustainability is still in the development process
2. Balance the short- and long-term benefits
3. Training, or how human resources are managed
4. Sustainability should be driven from top-down bottom-up within the organizations
5. The operation of sustainability should be aggressively de-silo throughout the company
6. Measure everything
7. Sustainability strategies need to be realistic, authentic and transparent (p. 55)

The author describes sustainable business models and gives an example of how they are cause-related to specific motives. The examples show how companies intend to reduce their waste, cost, and energy, and how to capitalize on the value in sustainability that lies in the business model. Regarding the fashion industry, a business model should illustrate how the industry can turn waste into a new product by re-using and recycling the old ones.

The third article is qualitative research carried out by Guercine and Milanesi [58] over four and a half years. Their purpose was to examine the connection between the extreme luxury fashion business model (ELFBM), and the company internationalization. Additionally, to learn if the internationalization is an element, rather than a strategy, in the business model. In summary, business models should not only be aimed at delivering value for the customer and the company itself, “but also to assume full meaning in their relationship with internationalization” (p. 418).

The fourth article is qualitative research focusing on business models where Pedersen et al. [59] investigated the relationship between business model innovation and corporate social responsibility (CSR) within the fashion industry. The research is based on data received from managers within the Swedish fashion industry. The results of the study suggest a need for more information or knowledge, as the authors claim “how the business model concept can bridge company level corporation sustainability and system level sustainability innovation” [59] (p. 277). The result, furthermore, shows the underlying values for sustainability in the fashion business models and how values shape innovation, or as the researchers claim “the high levels of innovations in the fashion business models are more likely to be proactive on the sustainability agenda” [59] (p. 279).

The next sections cover three papers of how the fashion industry measure and reports sustainability action within the organizations, as presented in Table 3.

The first article in Table 3 is a study conducted in 2014 by Kozlowski, Searcy, and Bardecki [60]. The aim is to “identify reported indicators in corporate sustainability reports of 14 apparel brands belonging to the Sustainable Apparel Coalition” [60] (p. 377). It was done by investigating companies’

websites and other primary documents. In the study, attention is drawn to the design practice and how fashion designing is more environmentally focused than previously. Likewise, business innovation is increasing, and fashion brands now focus more on the end-of-life management by collecting old clothing and shoes from their customers by collaborating with, or in partnership with, various recycling companies to reuse old clothes. The study discloses how some fashion companies offer the customer a service called IFIXIT, where they can learn how to repair used garments. It appears that most brands who participated in the study use the Global Reporting Initiative (GRI) reporting guidelines, and Apparel and Footwear Sector Supplement (AFSS), a guideline to report on their sustainability indicators. Kozłowski et al. [60] points out how few indicators regarding the sustainability impact are for the consumers' commitments in the sustainable business model for the apparel industry, and their conclusion "showed that a large proportion of the reported sustainability information was related to supply-chain management, SSCM" (p. 392) and they encourage others, particularly researchers, to "improve disclosure efforts in the future" (p. 392).

The second study is a case study carried out by Lueg, Lueg, Andersen, and Dancianu [61] where the case was EGE, a family owned Danish high-quality carpet company. The purpose was to illustrate if and how corporate social responsibility (CSR) standards and guidelines could help the company to carry out integrated reporting (IR) after the IR became mandatory in Denmark. The authors point out how technical language for CSR reporting, such as facts, possibilities, values, and communication are confusing and even challenging for "[the] average stakeholder to understand" (p. 30). They cite few sources to support how to simplify the process to increase stakeholders' understanding of CSR activities for IR in their annual report and point at how the "adoption of IR differs across context" (p. 30). Their main concerns are whether IR as a regulation serves its purpose where companies are required to hand in a single standardized document instead of formatting a specific approach to "value the philosophy of the IR" (p. 30). As they discuss in the contribution chapter, "by creating shared topoi (A Greek noun *topos* (plural *topois*) and means commonplace (<https://www.merriam-webster.com/dictionary>)) for stakeholders in a company's annual report constitutes best practice in CSR communication, as CSR is ultimately conducted in these stakeholders account" (p. 30).

In the third article, Park and Kim [62] focus on the fashion industry by testing the triple bottom line model (TBL) by measuring the core element for sustainability, or the economic, environmental and social factors, in order to learn if the model can be used as an accounting framework for consumers' perceived sustainability of fast fashion brands (p. 9). Additionally, to learn if there is a difference between fast fashion and sustainable fashion. The findings reveal that when it comes to explaining consumer perceptions of sustainability for fashion brands, the TBL model is useful. However, when it comes to explaining the core drivers for sustainability as social, economic and ecological incentives, the researchers claim to measure the interaction between those drivers, but they need a more comprehensive tool or model in order to do so.

In the next sections, what drives sustainability within fashion business models is discussed and Table 4 shows nine papers of the topic.

The first article listed (see Table 4) emphasizes drivers, strategies, and sustainability knowledge within the fashion industry. Additionally, about knowledge and behaviors among undergraduates' students, by Connel and Kozar [63]. The authors discuss sustainability-related issues by conducting quantitative research among undergraduate students at higher education institutions in a midwest state of the United States (US). The aim was to analyze student's knowledge of environmental and social issues and to learn if that knowledge reflects their purchasing behavior regarding apparel and textile. The authors argue how critical it is to educate consumers and to improve their knowledge regarding sustainability-related issues, especially where the participants showed limited interest in buying environmentally friendly products. In the paper's findings, the authors suggest how urgent it is to educate students, or overall consumers, about their responsibility regarding the environment when buying new clothes or textile products, especially where the participation in the study showed a

lack of knowledge regarding the problem that the industry is causing by its mass production towards the environment [63].

**Table 4.** Literature of sustainability drivers within the fashion and fashion business models.

Author(s)	Year	Publisher	Titles
Hiller, Connell, and Kozar [63]	2012	<i>International Journal of Sustainability Emerald</i>	Sustainability knowledge and behaviors of apparel and textile undergraduates
Kim et. al. [64]	2013	<i>Journal of Fashion Marketing and Management</i>	The motivation drivers of fast fashion avoidance
Pedersen and Gwozdez [65]	2014	<i>Journal of Business Ethics</i>	From resistance to opportunity-seeking strategic response to institutional pressures for corporate social responsibility in the Nordic fashion industry
Hyo Jung and Tun-Min [66]	2015	<i>Social responsibility Journal Emerald</i>	Is fast fashion sustainable? The effect of positioning strategies on consumers' attitudes and purchase intentions
Hill and Hyun-Hwa [67]	2015	<i>Journal of Fashion and Marketing and Management Emerald</i>	Sustainable brand extensions of fast fashion retailers
Lang, Armstrong, and Liu [68]	2016	<i>Fashion and Textiles Springer Open</i>	Creativity and sustainable apparel retail models: Does consumer's tendency for creative choice counter-conformity matter in sustainability?
Wilson [69]	2015	<i>Textiles and Clothing Sustainability Springer Open Journal</i>	The sustainable future of Scottish textiles sector: challenges and opportunities of introducing a circular economy model
Pedersen and Andersen [70]	2015	<i>Journal of Fashion Marketing and Management Emerald</i>	Sustainability innovators and anchor draggers: A global expert study on sustainable fashion
De Giau, Macchion, Caniato, Danese, Rinaldi, and Vinell [71]	2015	<i>Journal of Fashion Marketing and Management Emerald</i>	Sustainability practices and web-based communication: An analysis of the Italian fashion industry
Jung and Jin [19]	2016	<i>Sustainability MDPI</i>	Sustainable development of slow fashion business: Customer value approach
Workman, Seung-Hee, Jung [72]	2017	<i>Sustainability MDPI</i>	Fashion trendsetting, creative traits and behaviors, and pro-environmental behaviors: Comparing Korean and United State (U.S) college students
Yang, Song, and Tong [73]	2017	<i>Sustainability MDPI</i>	Sustainable retailing in the fashion industry: A systematic literature review

In the second article, the authors Kim et al., [64] look at consumer behavior and conceptual structure of fast fashion avoidance, in their study, amongst young female consumer in Korea. They discuss how fast fashion is targeting young women, and the target group in the study was females in their 20s and 30s. The authors used the "brand avoidance model and a content analyses method to analyze online blogs" (p. 256) and identified elements as "overly trendy styles, big stores discomfort, poor performance, lack of personal help, deindividuation, inauthenticity, irresponsibility, and foreignness as negative beliefs regarding fast fashion" (p. 256). The authors discuss how fast fashion brands are more likely to increase their market share in the Korean market, especially where younger consumers believe and value fast fashion products where it is "unique enough to express their personality" (p. 257). Authors discuss the fast fashion business model where the elements such as low-price strategies, mass, and trendy productions are the main characteristic, and how domestic fashion retailers are

copying the fast fashion business models as they believe it is an “ever-lasting receipt for success” (p. 257). Regardless of this finding, the authors point out the weakness of adopting other fast fashion business models to gain success instead of focusing on creating a new business model aiming to satisfy consumers’ values and needs.

In the third article, Pedersen et al. [65] aimed to expand the understanding and knowledge regarding CSR behavior in institutional context (p. 259) by analyzing, randomly, 400 Nordic fashion companies using both quantitative and qualitative methods. Authors discuss in their findings how the stakeholder pressure is dominant in the Nordic fashion sectors “regardless of stakeholder group” (p. 259) and most of the companies “see CSR responses to institutional pressures as largely a compliance game rather than a strategic opportunity to differentiate the company from its competitors.” (p. 259).

The fourth article investigated perceived CSR effort, price, value, and equity [66] and investigated if sustainability strategies, such as attributes and benefits, support the definition of the stimulus–organism–response model (S-O-R model). The authors, Hyo Jung and Tun-Min [66], argued whether fast fashion is sustainable or not by focusing on marketing strategies from a consumer’s point of view. They discover how the fast fashion industry relies on low-price strategies for marketing their products, instead of focusing on policies addressing sustainability or CSR-related efforts. The result of the study “supported the successful application of the S-O-R model on the relationships among positioning strategies (i.e., stimuli), perceived CSR effort (i.e., organism), and intent to purchase (i.e., response)” (p. 862). Additionally, consumers who bought products from companies who already have implemented sustainability policies and CSR standards are likely to repurchase from the same brand again. Marketing strategies aimed to influence consumers’ buying decisions by drawing their attention to the organization’s CSR standards and sustainability policies might, in the long run, increase positive perception in their mind. The authors discuss when price and quality hold hands it is “more related to the product itself rather than sustainability in the marketing promotions” (p. 863), because consumers who buy fast fashion brands do not focus on sustainability or companies’ CSR standards and effort. They concluded that fast fashion brands should “put more effort into increasing perceived price value” regarding “quality in their production and collaboration with famous designers” (p. 864) to draw attention to CSR standards and sustainability policies.

The fifth article is from Hill and Hyun-Hwa [67]. The objective of this study is to gather information about “potential sustainable line extension” from fast fashion retailers by following the brand-extension theory to “identify the influence of knowledge” (p. 205). The information was gathered from the in-store customers of the largest multinational retailers in the world (i.e., ZARA and H&M). The purpose was to learn how and in what way consumers evaluate environmental issues, and if it fits their image of those two brands. Additionally, to discover in what way the new clothing line fits their ideas of environmental issues and sustainability, and if there are possible positive effects or connections between consumer knowledge of fast fashion for the “brand-cause-fit and brand-extension fit” (p. 215). The findings reveal the importance of mutual communication in the relationship between customers and the brand. The results show how a customer with a more profound knowledge of the brand code of conduct, or the aim of implementing sustainability practices, shows more positive relations towards the new line extension or the sustainable line of clothes. Despite the positive results, the author points out the gap between consumers’ environmental concerns and sustainable purchasing, which indicates the importance of educating consumers about their responsibility. They also debate how knowledge of environmental problems seems to increase the consumers’ willingness to buy sustainable products if they are informed of the cause.

The topic of the sixth article written by Lang, Armstrong, and Liu [68] discuss sustainable consumption and sustainable apparel retail models. The objective was to identify the relationship between consumer “Tendency for Creative Choice Conformity (TCCC) and the acceptance of newly sustainable apparel retail models” (p. 1) focusing on sales, redesigning, repairing, renting, and swapping of products, as well as consultant services. The findings suggest that consumers are getting more interested in redesigned garments and interest in renting clothes is growing. There are differences

between women between 18 to 34 years of age and those who are older or at the age of 35 to 49, as well as among women with higher incomes. The results suggest that younger women with lower income are more open-minded to redesigned clothes than the older group, where younger women “desire to stand out from others by wearing different clothing” (p. 12) and should; therefore, be the companies’ target group because of their willingness to contribute to the benefit of society. As researchers point out, “most important[ly] is how the findings confirmed the effect of consumer’s TCCC and demographics on the acceptance of the new sustainable apparel retail model” (p. 13).

In article number seven, Wilson [69], the author based her case study on the sustainable future of the Scottish textiles sector aiming to “bring together the academia and apparel industry” (p. 1) by looking at the Zero Waste Scotland (ZWS) program and how it supports the textile production in the country. The ZWS program intends to support sustainable clothing production in Scotland by following the Circular Economy (CE) ideology [4]. Wilson [69] deliberates if there is a request for a specific standard in the Scottish government’s policies and regulations regarding sustainability and if there is a practical new technique that will “develop closed-loop progress” (p. 8) for recycling. She also points out how collaboration between the industry and academia might secure the future of the sustainability “by establishing knowledge” (p. 8) of circular economy theories and practice. Such a joint effort could “determine the Scottish textile industry’s short- and long-term goals” (p. 8).

The eighth article presents a research carried out by Pedersen and Andersen [70]. The study methods are based on secondary data, quantitative and qualitative information, and the aim was to find out what the sustainability barriers and opportunities are for the fashion industry. The findings indicate that there is a growing awareness among consumers about re-using, repairing, and up-cycling fashion clothes. The findings show that consumers put trust in organic cotton labeling and thereby assume that organic stands for an environmentally friendly product. Pedersen and Andersen [70] emphasize the necessity for structural changes of the fashion industry, especially where it is difficult to come up with a specific model for successful implementation of sustainability emphasis that can be integrated throughout the organization. The structural changes depend on management commitment since a successful implementation process will be top-down, bottom-up management throughout the organization. The findings indicate a requirement that the fashion industry reconsiders their price policy, as such a strategy change might encourage consumers to buy more socially and environmentally friendly fashion products.

The ninth article is a study from 2015. It is a multiple exploratory case study carried out by De Giau et al. [71]. The purpose was to study how Italian fashion companies communicate on their websites after adopting sustainability commitments, and which environmental, social, and sustainability practices they adopt. The main findings indicate that only a few companies are “developing extended supply chain solutions because of the high complexity of their supply chains and the subsequent difficulties in controlling the supplier’s actions” (p. 84). The results suggest that it depends on the designer’s decisions whether they use sustainable approaches in the production process and how “high cost is generally associated with sustainable practice and implementing” (p. 84). De Giau et al. [71] point out how sustainability practices are not a part of companies’ competitive strategies, thereby indicating how limited the information is that fashion businesses offer to consumers. The researcher points out how fashion companies, in general, are giving in to outside pressure from non-government organizations (NGOs), the media, and market demand to implement sustainability policies, while other companies find value in integrating sustainability into their businesses strategies [71].

The tenth article by Jung and Jin [19] examines slow fashion from the perspective of competence, customer value creation, and production process. They investigated five dependent variables to measure perceived customer value: equity, authenticity, functionality, localism, and exclusivity, by using the structural equation model (SEM) and compared it to perceived customer values, such as emotion, quality, price, and social. The attribute for the variables of equity and localism was not supported in the result. The researchers conclude that the reason might be how customers “engage only ethical consumptions when ethical issues impact them directly” (p. 11). The findings show

how authenticity created both the quality value and price value in the consumer's mind, and how they connected functionality with the emotional value and quality values, without generating social value. The exclusivity dimension was the most significant variable in the study as it showed how consumers intend to seek higher value in clothing purchasing from slow fashion rather than fast fashion retailers. The researchers point out that "no matter how great the values are that the slow fashion idea brings to a sustainable society and environment, it cannot be completely sustainable without ensuring economic sustainability" (p. 12). Therefore, the slow fashion industry needs to focus on how to become "economically sustainable" [19] (p. 12).

The purpose of the eleventh article by Workman et al. [72] was to study the cultural differences and values among fashion trendsetters by using Hofstede cultural dimensions. The focus was on college students in South Korea and the United States (US) to see if there were differences between gender and culture in those two countries by testing twelve hypotheses. The findings indicate that US students, especially women, are leaders when it comes to being trendsetters for fashion clothing, and there are no differences between the culture of adopting pro-environmental behaviors. Authors discuss that the study findings may benefit marketer and international fashion retailers with regards to understanding cultural setting of young consumers and trendsetters:

"Trendsetters play an important role in the fashion adoption–diffusion process. They act as gatekeepers (i.e., individuals who control access to innovations) for other potential end-users. Even though trendsetters may have grown up and been socialized to think in culturally traditional ways (e.g., collectivism, uncertainty, avoidance), their traits and behaviors interact with cultural values in their reaction to innovations. Therefore, identifying and targeting trendsetters within a particular culture would be a wise course of action for international marketers and retailers of new products." (p. 12).

The twelfth article is a systematic literature review carried out by Yang, Song, and Tong [73]. They used the following keywords to search for articles: sustainable OR sustainability AND retailing OR retail in the first step of the search. In the next step they used; fashion OR textile OR cloth OR clothing OR clothes, which resulted in 48 articles related to the fashion industry. The purpose of the study was to gather information from published literature regarding sustainability within the fashion industry. They suggest that, despite consumers' awareness, primarily raised after 2006, related to social responsibility, economic sustainability, and environmental protection, the increasing purchasing of clothing affects the "sustainable development of fashion retailing" negatively (p. 1). They emphasized how the main focus in previous studies, regarding sustainability within the fashion sector, centers around developed western markets, thus drawing the attention to the "gap between the practical needs and the relevant research in developing the market" (p. 13). The researchers attempted to evaluate the impact of sustainability-related issues that are growing within the fashion industry, where the industry is neither providing detailed information on sustainability and environmental problems caused by the industry nor emphasizing ethical products [73].

## 5. Discussion

The study aim was to obtain a better understanding of the literature of how the fashion industry integrates sustainability within fashion business models, investigate if sustainability-related practices are measured to ensure transparency and improvement, and recognize what drives sustainability in fashion business models. This was done by analyzing various studies to identify what types of studies have already been carried out regards to integration of sustainability emphasis into fashion business models, what kind of research gaps exist in the field of sustainability and fashion business models, and to answer the following sub-research questions:

1. How is sustainability measured and/or reported in the fashion business models?
2. What drivers influence sustainability within fashion business models?

The findings in Table 2 shows a different approach on how sustainability is integrated within fashion business models (i.e., through innovation, the model's structure, and how to gain a competitive advantage) [56,57]. Westerlund [57] states the importance to gain competitive advantage and discusses the importance of having specific elements for re-using and recycling clothes or how to turn waste into a new product [57], while Pedersen et al. [59] focuses on the organizational value within the industry. When it comes to gaining a competitive advantage, it is essential to change the mindset within the organizations [57] and concentrate on new technology and new trends in consumers' behavior [56]. This is in line with Schaltegger, Lüdeke-Freund, and Hansen, [8]; Ellen MacArthur Foundation, [15], and Blowfield and Murray, [14], who suggest the importance of changing business models rather than implementing sustainability into the current one, as drivers for sustainability are different [8]. As Westerlund [57] points out, business models are cause-related to specific motives where industries intend to reduce cost, energy, and waste. The sustainability value lies in the business model, and it is important to move fast in the implementation process, where sustainability is still developing. The findings, as presented in Table 2, reveals limited research regarding how sustainability-related practices are integrated within fashion business models. It suggests the need to explore the field further to gain more information and knowledge regarding in what ways the fashion industry integrates sustainability into its business models. De Giau and Macchion [71] claim that sustainability practices cannot be part of competitive strategies due to the limited information that fashion businesses offer to consumers. It aligns with Osterwalder and Pigneur's [30] discussion about how businesses must use business models as structural progress for information inside and outside the company. Pedersen et al. [59] address the same problem of how the business model should be used to tie together (p. 277) the level for sustainability innovation by using internal and external information.

To answer the first sub-question in the study of how sustainability is measured and/or reported in the fashion business models, only three papers focused on the topic. Two had the focus on CSR as a means to address transparency by using GRI standards or the Apparel and Footwear Sector Supplement (AFSS) as a reporting guideline, while the third one focused on the triple bottom line (TBL) method to measure sustainability within the supply chain. Lueg, Lueg, Andersen, and Dancianu, [61] reported how the retail company, in the textile business, use CSR as a guideline in their annual report to draw the attention to CSR activities, financial performance, and strategic goals. There was only one paper, in the findings, that discussed the importance of measuring sustainability in business models. In these, the authors discuss how crucial it is for the fashion industry to measure sustainability practices, given that the values for environmental actions lie within the business model itself [62].

To answer the second sub-question, what drives sustainability in the fashion industry, five drivers for sustainability are identified for business models. The drivers identified are: (1) governments and regulations pressure [70], (2) market pressure [68], (3) closed-loop/circularity pressure [69], (4) organization innovations [57], (5) value creation for the company and/or its stakeholders [19], and equity, authenticity, functionality, localism, and exclusivity [19] (see Table 5).

**Table 5.** Summary of drivers for sustainability from findings.

Sustainability Drivers from This Study	Jung and Jin [19]	Sorescu, et al. [56]	Westerlund [57]	Pedersen et al. [59]	Park and Kim [62]	Hiller, Connell, and Kozar [63]	Hyo Jung and Tun-Min [66]	Hill and Hyun-Hwa [67]	Lang, et. al. [68]	Wilson [69]	Pedersen, et al. [70]	De Giau, et al. [71]	Yang, Song, Tong [73]
Collaboration							X			X			
Closed-loop									X	X			
Economic					X		X				X		
Education internal/external stakeholders						X		X					
Ecological					X								
Equity	X												
Financial and stakeholder benefits			X										
Organization innovations			X										
Organization marketing strategy												X	X
Regulations											X		
Social					X								
Sustainability innovation		X	X	X			X						
Value creation	X												

The emphasis on closing the loop and circularity [69] (external drivers), and equity, authenticity, functionality, localism, and exclusivity [19] (internal drivers) seems to be the drivers setting the discussion in the paper analyzed apart from the previously identified drivers in the academic literature (see Tables 5 and 6). Sustainable consumption is the result in both Lang et al. [68] and Pedersen and Andersen's [70] research where sustainable products are discussed, such as redesigning garments and the increasing interest among consumers for renting new clothes, and re-using, repairing, and up-cycling fashion garments. This is in line with the Ellen MacArthur Foundation [15] emphasis on circularity and partly with the SCP cycle [47], as presented in Figure 3. Wilson's [69] study on the Scottish textile sector concluded by suggesting using the Circular Economy (CE) model to close the loop for recycling and re-use, and further suggests how governments could promote standards for sustainability policy and regulations, supported by a collaboration between academia and industry to find a solution to secure sustainability [69]. The findings in this search for sustainability drivers shows similar factors for sustainability as the SCP cycle (see Figure 3), such as sustainable marketing, resource management, designing for sustainability, waste management, and partly sustainable lifestyle [47]. The consumers value creation and their buying decisions are, in a way, a part of a sustainable lifestyle. Jung and Jin [19] used the structural equation model (SEM) to analyze consumers value creation regarding slow and fast fashion by using five variables, equity, authenticity, functionality, localism, and exclusivity. Their findings show consumers perceive value as emotion, quality, and price, and how they are more likely to buy products from fast fashion even though they see more quality in buying slow fashion. Regarding the consumer emotional factor, sustainability-related issues and ethical consumptions seem not to have much influence on their buying decision until it affects them directly [19].

The drivers presented in Table 5 differ to some extent from drivers identified in the literature. Hoffmann [4], for instance, discusses sustainability drivers as: (1) coercive drivers that includes both domestic regulations and international regimes; (2) resource drivers related to buyers, shareholders, suppliers, and investors; (3) market drivers for consumers, competitors, and trade associations; and (5) social drivers, such as environmental non-governmental organizations, the press, the courts, religious institutions, the academia, the community, and more. Johannsdottir [44] suggests that the core drivers for sustainability in business models are: (1) market pressure, (2) social pressure, and (3) peer pressure, as external drivers, then (4) financial pressure, (5) ethical motivation, and (6) ownership as internal drivers. Additionally, she offers a roadmap towards environmental sustainability by emphasizing integration of sustainability into companies' core business [49]. Westerlund [57] states that drivers for sustainability in business models include market, financial, innovation, and compliance drivers, in addition to stakeholder-benefits.

Regarding sustainability drivers, Jung and Tun-Min [19] debate the importance of education and claim how purchase-behavior changes when consumers are aware of their responsibility, which matches Johannsdottir's [49] discussion of the urgency to educate internal and external shareholders. Jung and Tun-Min's [19] argument regarding how marketing can affect consumers' buying decisions gives organizations the opportunity to use marketing strategies to draw consumers attention to the companies' sustainability standards and structure. They urge fast fashion brands to use their marketing strategies in an attempt to inform customers about their responsibility, especially where they are more price-minded rather than influenced by quality [19]. The findings from the literature indicates the value creation as one of the significant drivers for sustainability [28,30,31,38], as well as educating customers [42,43,49] (see Table 6).

**Table 6.** Summary of sustainability drivers for business models from the literature.

Sustainability Drivers from the Literature	Jung and Jin [19]	Ballon [28]	Osterwalder and Pigneur [30]	Magretta [31]	Gassmann et al. [37]	Teece [38]	Chunmin et al. [42]	Bianchi et al. [43]	Johannsdottir [49]
Company's peer pressure									X
Customer education							X	X	X
Marketing strategies	X								
Process			X						
Product/service					X				X
Raw material and waste									X
Rewards			X						
Stakeholders			X		X				
Strategy			X						
Structure			X						
Value creation		X		X	X	X			

## 6. Conclusions

Integrating sustainability-related practices into the fashion industry business models is highly important as the industry is accused of being one of the most polluting industries in the world. Such action should be beneficial for the society and the environment and might secure transparency within the industry, particularly regarding their production processes where massive production volume causes significant pollution problems. This study allows for an understanding of how the fashion industry integrates sustainability-related practices into its business models, and if such actions improve transparency and disclosure. Through a systematic literature review, this study attempted to shed light on how the fashion industry integrates sustainability into its business models, how such practices are measured to ensure transparency and improvement, and what driving forces influence actions. Such contribution is of relevance for the academia and the fashion industry. A key contribution is to provide a better understanding of how the industry integrates sustainability-related practices to counteract the environmental issues into its business models, overview of measurements and reporting, as well as driving forces behind the industry action.

The study is not without its limitations as the analysis was limited to one database, ProQuest. Nevertheless, the database covers a large share of studies available, thus useful to lay foundation for further studies of this nature. Another limitation worth bringing up is the period of publications, but the focus was only on articles published in English, in scholarly journals, from 2000 to 2018. Language barriers may have limited the number of articles found but a longer publishing period would not have resulted in more article since sustainable fashion is a rather new topic within the academic research, given the fact that the first articles of relevance of the study were published in 2011 onward. The purpose was not to come up with an “empirical truth”, but rather to seek explanation and use it as a base for empirical study to provide more comprehensive information about integration of sustainability into business models of fashion companies, as well as transparency about actions taken and improvements made.

This paper; therefore, opens a path for academics to consider empirical studies on how to investigate the sustainability strategies of fashion businesses, elements of fashion business models, driving forces influencing actions, measurements, key performance indicators, transparency and disclosure, just to name a few examples. Such studies would provide a more comprehensive view of what motivates sustainability within the industry, actions carried out, and societal and environmental benefits. Another topic for future studies would be to analyze if and how the industry adopts circular economy ideas and circularity.

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