

Vivien Koltai²⁵

Slow fashion as a possible route to SDG 12 within the fashion industry

As many may not know, the textile and fashion manufacture combined are the second largest polluting industries. This can mostly be traced back to their complicated supply chain, next to their growth focused business models. Although there have been approaches towards researching the topic, it seems like there is still an undiscovered potential of detecting what slow fashion designates as in regard of production and operation practices. The paper aims to pinpoint the main principles of slow fashion through a thorough literature review, with collecting relevant papers related to slow fashion in the database of SCOPUS. The research also conducts a content analysis from existing descriptions by experts, in order to reveal the possible dissimilarities and parallels in slow fashion and SDG 12 principles. The paper's goal is to see whether slow fashion can act as a supporter of SDG 12's main production aims within the fashion industry.

Key words: slow fashion, SDG 12, circular business models, fast fashion

JEL code: Q01 - Sustainable Development

<https://doi.org/10.32976/stratfuz.2023.17>

Introduction

Though, it is generally accepted that the oil business is the largest polluter currently, what is less commonly recognised is that it is followed by the fashion industry, causing several environmental issues. One of the main reasons that this effect exists is that the industry involves a complicated, long, and diverse supply chain regarding production, textile manufacture, raw material, garment construction, transportation, retail, consumption and finally disposal of the clothes (Gupta, 2022). The before explained chain and business strategy even leads to fast changing trends which encourage early disposal of the clothes causing a vast amount of waste in exchange for a quick profit (Kirchherr, 2017). Unfortunately, these elements strongly contribute to GHG emission, pollution with pesticides, pollution using hazardous dyes while manufacturing, and in addition the endangerment of wildlife as well (Garami, 2023) (Gupta, 2022). Another important aspect of the textile and fashion industry which not many realise is the lack of social responsibility, as the outsourcing of different processes mainly involves the workforce of emerging nations since the cost of labour is significantly lower there. Altogether, the three main aspects of economic, environmental, and social sustainability should be all examined together to evaluate a company's success, but because of the often fragmented and long chains, it is greatly challenging to monitor compliance in every aspect of the operation (Centobelli, 2022).

The severity of the case gets worse year by year, since statistics have shown that people are buying one-third more of the items than 3 or 4 years ago. This effect can be traced back to the increasing availability of large quantities of garments, furthermore, the fact that these items are getting less and less expensive thanks to the economy of scale principle (Fletcher 2014). Next to the mentioned theory, behind the rapid speed of garment creation, there is an economic growth-based business practice as well, which favours standardised, cheap, easy to produce materials with low-cost labour, short lead time and large volume production (Fletcher 2008). Since the mentioned business-as-usual or production-as-usual creates not only environmental but even social harm with its linear model, several actors within the sector and the research community sought to find or

²⁵ PhD student, Corvinus University of Budapest, Doctoral School of International Relations and Political Science, Geopolitics and Sustainable Development Program

create an appropriate solution for both the industry and their consumers as well (Abbate, Centobelli, & Cerchione, 2023).

Thanks to the rising awareness – from legislative, furthermore consumer pressure –, several companies have already started to alternate their way of production and operation to both fit the trend and correspond to law making. Of course, this also indicates that researchers in the field of sustainability started to focus on the matter in several ways, such as an economic standpoint of how to change supply chain functions, a biological standpoint of eco-friendly fabrics and an engineering standpoint, how to use new technology and non-hazardous chemicals in production (Gupta, 2022). With this recognition in mind, professionals in the field created several concepts for the solution of unsustainable operation and production practices, just like SDG's responsible consumption and production principles (Nations, 2023). The mentioned conceptions mainly tackle policy-based approaches to handle the encroachment companies create with their linear model-based manufacture.

From the several approaches related to sustainable development and its operation practices, the paper would like to highlight some of the most common ones to present current trends within the topic.

First, the research would like to present the widely known concept of the *Extended producer responsibility* attitude, where the legislation's aim is to encourage suppliers to produce garments in a more sustainable manner, causing durability, recyclability, and proper end-of-life product handling. Another, even greater approach is the *circular economy scheme* which gained great attention in the last five years within the framework of SDGs. The core idea behind circular economy is a process concept that focuses on reuse, reduce, recycle, and recover of a product which – if handled correctly – in theory, can give a solution to environmental issues within production and end-of-life handling (Cooper, 2022). Next to the showcased principles, there is another, quite recent notion, the *Circular Business Model scheme*. The main idea behind CBMs (Circular Business Models) is the innovation of the business-as-usual paradigm to achieve a closed loop in the production processes. As within CE (Circular Economy), CBMs' main driver is to use one material for as long as it is possible and create as much value of it as possible in order to lessen the burden on the environment (Nußholz, 2017). Lastly, there is a need to mention *Sustainable Supply Chain Management* as well, which according to the literature is the management of material, information and capital flow, cooperation with other companies along the supply chain with the focus on all three pillars of sustainable development (Seuring, 2008).

Although these approaches and the wide realisation from both policy makers, researchers and consumers, there is still a gap in solving the complex notion of the social, environmental, and economic values at the same time with the always increasing problem of production and consumption in the fashion industry (Freudenreich, 2020). Moreover, according to Bruna Villa Todeschini, (2017) there is still an uncertainty regarding sustainable fashion business model structures since research about the inner dynamics of successful models are limited because these often turn out to be individual cases. Besides the mentioned deficiency, the policy-based approaches often fail due to the questionable genuinity of the participating companies.

Due to the listed reasons, the importance of finding a well-functioning solution to the fashion and textile industry's unsustainable operation is crucial since it currently does not advocate for transparency, but further generates vast amounts of pollution throughout each element of its supply chain, with reaching the second largest polluter globally. In addition, it includes social cruelty and exploitation and an unsafe working environment due to its preference of outsourcing to cheap labour (Abbate, 2023).

Theoretical background

The following section aims to highlight the theoretical background of the study, introducing the key concepts to deepen the understanding of the subject.

The characteristics of Fast fashion

The fashion industry today can be characterised as a fast-paced, always changing environment which have been established by the rapid turnover of fashion trends and the producer's effort in creating more seasons within clothing lines with low quality fabric, poor garment construction and a short lifespan in hope of an always growing profit (Szilágyi-Csüllög, 2021) (Fletcher, 2008). As a result of the above, even two decades ago the term fast has been connected to fashion to present those large-scale practices, which are logistics centred and economic growth focused. As an interesting aspect of the topic, many authors create a parallel between the fast food and fast fashion concept, since both stand for standardised mass production. In other words, fast fashion somewhat imitates the fast-food industry, where products are designed to be cheap, easily, and rapidly producible with low-cost materials and labour. In addition, another key element is the short lead time and efficient mass production to maximise the concept of the economies of scale, while also outsourcing practices for cheap labour around the world (Fletcher, 2008; Freudenreich, 2020). Thus, when we talk about 'fast' in this context, it means an economic tool to increase profit and garment throughput. Fast fashion therefore is not only shaped by the need of production speed, but a series of business practices which focuses on an ongoing economic growth. Altogether, fast fashion can be described as a set of business practices and production strategy which aims to maintain an ongoing growth of profit through standardised and outsourced mass-production with cheap materials, weak or fragile construction of the garments and cheap labour, following/creating monthly changes in trends (Fletcher, 2008; Vesterinen 2022).

As we can see, there are many flaws regarding fast fashion and its operation/production values considering it has unsustainable and often unethical consequences. Fortunately, stakeholders within, and outside the industry started to realise the unfeasible effects caused by the notion and started to act towards finding achievable and practical solutions to the matter.

A short overview of the United Nations' responsible production and consumption – SDG 12

As sustainable growth is the key factor of the UNs' Sustainable Development Goals, responsible production, and consumption as one of the principles also aims to reach this core value. The centre of this aspect is to promote such patterns which can result in a transition towards a greener and socially inclusive global economy. Based on the widely spread circular economic models, UN created a set of indicators which establishes the goals and leading direction towards the sustainability transition. These goals amongst others, include a number of countries shifting towards a sustainable consumption and production pattern with the help of policy instruments, in parallel with sustainable management and efficient natural resource usage, the halving of food waste loss per capita in production and supply chain processes, harmful chemical and waste reduction, the 3R principle (reuse, reduce, recycle), the transition to sustainable operation within large firms, public procurement practice promotion and the adequate information and awareness building of sustainable development (Nations, 2023; Nations, 2023).

Sustainable fashion as a concept

The concept of sustainable fashion closely follows the theories of Circular Economy, SDGs, and the Triple Bottom Line frame as a base of its operation. The main component of sustainable fashion is almost fully based on the "reuse, reduce, and recycle" buzzwords, with the addition of Sustainable Developments' social dimension element. This mixture of ideas gives the overall definition of sustainable fashion that include a sustainable supply chain, sustainable fashion product which is made in an environmental and social friendly manner (considers causes like human rights and environmental protection), recycled, or reused raw material production, manufacturing, and use of biological textiles, or recycled material from scraps, bottles, or old

clothes. A key element of sustainable fashion incorporates marketing and branding, which even has an educator role towards consumers (Shen, 2014).

Although the philosophy of sustainable fashion seems to include every dimension of environmental and social prosperity, the application into practice seems to be a challenge to most of the companies. Since the seriousness of pollution and social injustice is excruciating and still ongoing, many stakeholders in the industry expect the rapid change from the linear, business-as-usual operation to a sustainable model. Unfortunately, in order to reduce the pressure, some brands choose to resort to tools like greenwashing to appear as they are meeting the criteria mentioned above. Overall, the importance of sustainability practices is without a doubt valid and relevant, economic and consumer benefits still serve as the leading motive where many use the matter as an apparatus for increased material and continuous economic growth (Adamkiewicz, 2022, Fletcher, 2008).

Sustainable, circular business models and supply chains in the fashion industry

As in the linear model, circular business models serve as value proposition, value creation and value capture framework within the given business. Circular business models therefore serves as a management-based tool where circular economy concepts are integrated as guidelines for the design and development with the 3R concept of reduce, reuse, recycle or recover (Henry, 2020). According to Marvin Henry (2020) it is necessary to set a difference between sustainable business models and circular business models, since the first term refers to a concept which is centred around creating an economic, environmental and social value at the end of the process without specifying the tools, directions, while CBM is a narrowed down approach which serves as a route in addressing the negative effects of business operation leading to environmentally harmful practices. With this being said, ultimately SBMs can also lead to damaging effects, if the design options are only partially following environmentally friendly production (Henry, 2020).

Moreover, it is also essential to highlight the fact that while SBMs hold a social relevance and work enrichment as a basis for establishing value – next to economic and environmental dimension -, in case of CBMs it is only a secondary aspect of its core value formation (P.P. Pieroni, 2019). Besides the above explained, according to Marina P.P. Pieroni (2019) while the two terminologies have been used broadly, there is no such thing as an absolute SBM or CBM, since only practices and principles that enable a fit with the vision of circular economy can be applied to business models.

After understanding the principles of SBM and CBM, there is a need to shortly overview the meaning of sustainable supply chain management within the fashion industry. As an observation, it is worthwhile to accent the fact that CBM features somewhat overlap SSCM (sustainable supply chain management) tools since it can be seen as CBM's subordinate element. There are several approaches in pursuing an environmentally viable supply chain operation within the garment industry where the literature emphasises some of the main methods according to the following: the use of organic fabric, the reuse and recycle of materials, vintage practices, second-hand, clean technologies, green certification, green product, and process design. Here, the traceability of the product is also an important factor to create a transparent production chain (Caniato, 2012). With the help of the short overview of concepts, the paper would like to present some ideas on how exactly circular business models and supply chains can look like in practice. One widely known practice is the product take-back system which focuses on the capitalization of remaining items, which then can serve as raw material for manufacturing. Another popular approach is second-hand resale which obtains its final product from already existing and used items; with this concept, the business skips the manufacturing element and does not generate more waste by adding an additional garments to the already filled market (Abbate, Centobelli, & Cerchione, 2023; Caniato, 2012). As we can see, there are many options within the reduce, reuse, recycle or recover principle of CBMs and SSCM even within the fashion industry, although as mentioned before, it does not

completely integrate every sustainability aspect, leaving the social dimension as a secondary target. One could say that with applying SBM principles, this deficiency could be settled. However, as Marina P.P. Pieroni (2019) explained, the model only stands for business concepts without specifying any tools, directions, and processes. With this, one can discover that SBM and CBM concepts lack true complex solutions for a more sustainable production and operation practice in accordance with the UN SDG 12 principle.

The emergence of Slow Fashion

The concept of Slow Fashion originates from the Slow Food movement which originally started in Italy as a counter reaction to the emerging fast-food expansion (Fletcher, 2008; Legere, 2020). The philosophy's founder was Carlo Petrini in 1986 who claimed that fast food chains as McDonalds cause a threat to culture and local community (Jung, 2014). The core idea behind the movement is to combine the pleasure of eating with a commitment to both the community and the environment at the same time. As in the slow food movement, slow fashion advocates a backdrop of growth-based activities with the aim of reconnecting people to their communities, local values and traditional production with awareness and responsible production and consumption. The principles of the movement also reject the economic priorities of economy of scale or mass production (Fletcher, 2008).

Research objective

Despite many efforts, the fast fashion paradigm still dominates the industry with its supply chains creating mass-produced, ready-to-wear collections on a bi-weekly rate. With maintaining such high production – and consumption – volumes, the issue of sustainability remains unsolved. With the “trend setting” high-production mindset comes the large volume, short life disposal of the garments creating a vast number of landfills and pollution. Next to the contamination, the fastened production system causes a social issue as well, where powerful companies tend to use low-cost labour from around the world in sweatshops where working conditions are often neglected (Legere, 2020). In order to address these complex social and environmental issues, several production-based innovations have arisen but unfortunately, these have not been able to fully tackle all dimensions of the problem area. As an alternative to the existing methods, another practice emerged originally from the so-called slow food movement, to counteract the mass-production based operation. This new philosophy is called slow fashion, which promotes a comprehensive take on socially and environmentally sustainable operation within the industry (Pookulangara, 2013). Since the principles and term slow fashion only emerged approximately a decade and a half ago, researchers in the field tends to refer to it as a new concept, furthermore state that many time the presented definition is contradictory or even undeveloped (Pookulangara, 2013, West, 2021, Legere, 2020, Vesterinen, 2022).

Therefore, there is an obvious need to first clarify slow fashion's main dimension to set clear boundaries, discover limitations, opportunities, and categories. With the discovered attributes, the paper attempts to discover how the idea can serve as a supporting mechanism towards SDG 12's principles, moreover, to see if slow fashion could support the realisation of SDG 12 practices in the fashion industry.

Methodology and research question

The methodology of the research consisted of SCOPUS article search where the used key word was “slow fashion” to find possibly relevant articles which discuss the topic in a broader manner. Afterwards, I limited the search results with filtering only business, economic and management articles in English to further restrict the findings. Subsequently, this search eventuated in 155

articles which later were sorted based on their abstracts' content. With analysing the abstracts, 4 categories were made in order to further look into the articles' contents. The four main categories were: matches the topic, moderately matches the topic, somewhat matches the topic, and did not match the topic at all. After classifying the papers, I started to investigate their content in more detail, again selecting those which enclosed the relevant definitions and principles related to slow fashion which were open-access and available to read. With the second round of sorting altogether, 33 research papers were found which discussed the relevant information in connection to slow fashion on some level.

After the collection, the paper carries out the content analysis of the gathered 33 articles to identify the most used principles within slow fashion. The research further reveals the dissimilarities and parallels between SDG 12 and slow fashion, to see if slow fashion could serve as a supporting mechanism of SDG 12. It is also necessary to underline the modesty of the sample size, as larger samples can lead to a different conclusion.

Subsequently, the research questions are defined as the following:

1. *Based on the collected articles, how can we categories slow fashion's main principles?*
2. *What similarities and differences can be found regarding slow fashion and SDG 12?*
3. *Could slow fashion serve as a good supporting mechanism for SDG 12 within the fashion industry?*

Findings and results

In the following section, the findings of the research are presented where the paper alludes to a content analysis of the collected research.

Content analysis

In order to get a better understanding of the ideas about the principles and its most used dimensions, the paper explores the most commonly cited source when talking about slow fashion in the collected articles. Based on the results, Kate Fletcher is the most referred author when talking about slow fashion concepts. When looking into Fletcher's (2008) work we can differentiate about 14 dimensions which seems to tackle slow fashion as a whole. To reveal the dimensions together with the other author's definitions, a matrix has been created, to serve as a transparent and easily understandable data source.

Before the analysis of the assembled data, the paper first presents the base definition of Fletcher to deliver a better insight to the later presented.

As Fletcher claims, the word "slow" in slow fashion is not referring to the speed, rather it conceptualises a different worldview which promotes a variety of sustainable fashion production and consumption within the limits of our environment. Although the before mentioned - as in everything -, time has a part in the slower approach as well but not how many would interpret it as first. Fletcher here means a possible longer term relationship development that recognises the value of traditional manufacturing aspects (Fletcher, 2008).

Moreover, the author highlights the importance of diversity and authenticity next to quality which creates the idea of a seasonless, all year-round garment further endorsing the quality over quantity viewpoint (Fletcher, 2008). The writer further touches upon the economic side of the concept where the following aspects have been displayed:

"... slow fashion is not business as usual but just involving design classics. Nor is it production as usual but with long lead times...it is about appropriate speed for people, workers, and context. The slow culture vocabulary of small-scale production, traditional craft techniques, local materials and markets...It supports a changed set of power relations between fashion creators and wearers...It is a heightened state of awareness of the design process and its impacts on resource flows, workers, communities and ecosystems, with higher prices of garments to reflect true

ecological and social costs...as a production model it offers a radical alternative to high-volume, standardised fashion, making profit by selling fewer higher-priced items...it is also seen to promote the democratisation of fashion, not by offering more people access to clothes by lowering prices but by offering these people more control over institutions and technologies that affect their lives.” - Kate Fletcher (2008)

After discovering how the authors perceive the term, we can have an idea what of slow fashion stands for in a more general manner. With the findings taken into consideration, we can now attempt on defining slow fashion as a global term:

Overall slow fashion stands for a holistic philosophy which handles all three dimensions – environmental, economic, and social – together in order to propose potential practical solutions to consumer societies' undesirable production and consumption practices.

Now that we have gained an understanding of the term itself, the paper would like to present the result of the table of most referred dimensions and ideas in the accumulated literature. In order to see the detailed table, please refer to the appendix.

1. Table of collected dimensions of slow fashion according to Fletcher (2008) next to the most cited principals in the selected article

Dimensions of the most cited definition (Fletcher, 2008)	Total collected SCOPUS papers used dimensions
diversity/authenticity	17
product quality	29
long lead time	2
small-scale production	12
traditional craft techniques	10
local materials and production	18
local market	15
sustainably aware design process and production	28
ethical labour	25
sustainable resource flow	12
community centred	16
high product cost	6
environmental and ecosystem awareness	31
philosophical view/approach	9

Source: Own work

While taking a close look at the table, one could realise that next to the four highlighted dimensions of *product quality*, *sustainably aware design process and production*, *ethical labour*, and *environmental and ecosystem awareness* the other principals seriously lack behind. The cause behind the phenomenon can be explained by two main observations which arose throughout the literature exploration. Primarily, much of the literature tends to use only a fraction of the base definition, even though most of the writers have used one of Fletcher's interpretations throughout their work. Since authors mainly choose to only include those aspects or dimensions of slow fashion which they elucidated as important, a misalignment can be seen in the used definitions with missing elements of the core concept (Vesterinen, 2022). With this we could see that most authors focus on 4 main dimensions out of the 14, which gives us a good indication about how writers tend to use the term and view the other dimensions as somewhat of an additional element to the highlighted principles.

Although the table presents how authors interpreted the concept, it is vital to highlight that as an emerging subtype of the Slow (Food) movement, slow fashion as a philosophy intends to cover economic, environmental, and social levels as a whole with a fresh approach against linear economic growth, production and consumerism of today's world. Its main goal is a change in the current paradigm which not only requires business model and supply chain management changes

but sociological ones as well. Without highlighting the above, the definition can lose its core concept, becoming only a buzzword for sustainable practices.

Since slow fashion includes such a vast topic, there is not much room to find any environmental, social, or economic aspect which it does not cover. Although, it seems like one of the authors still managed to complement the concept with an additional insight. The mentioned researcher brought up the topic of cruelty-free production which has been an age-old topic within animal rights and social, ethical questions (Sinha, 2022). Since other socio-ethical questions beside workers' rights and fair-trade have not yet been discussed in the examined papers, it is fair to raise the question whether the framework should involve animal related ethical issues as well, since at some level it does affect the biodiversity and environment as well.

Possible correlations and differences of slow fashion and SDG 12

Based on the above stated and the differentiated dimensions of slow fashion, The paper can compare, then discover the possible parallels between slow fashion and SDG 12 principles. The conducted comparison can be seen in the following table.

2. Table The possible supporting dimensions of slow fashion regarding SDG 12 principle

Dimensions of the most cited definition (Fletcher, 2008)	SDG 12 principles (Nations, 2023)											
		12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12A	12B	12C
diversity/authenticity												
product quality		x	x		x	x		x				
long lead time								x				
small-scale production			x									
traditional craft techniques						x						
local materials and production			x		x	x		x				
local market								x	x			
sustainably aware design process and production												
ethical labour			x		x	x						
sustainable resource flow							x					
community centred									x			
high product cost												
environmental and ecosystem awareness					x	x						
philosophical view/approach		x										

Source: Own work

Here, SDG 12's main dimensions were considered based on the United Nations' (2023) created goals within the subcategory. When comparing the two principals and ideas, there are an obvious connection with slow fashions' dimensions and SDG 12's principles. Although the research found that not every aspect aligns within the two ideas. As for first, the paper would like to present the identical elements of the mentioned schemes, where it is found that slow fashion integrates 7 main concept of SDG 12's elements. The homogeneous principals based on the collected dimension

include but does not limit to the following: sustainable management and efficient natural resource practices, alternative and sustainable material usage - such as nano-cellulose from food-waste -, the use of 3R principle, a transparent and clear supply chain mechanism, and an aim towards educating the consumers. It further includes the strong philosophy or concepts of localisation both on the production and consumption level (Fletcher, 2008, Nations, 2023).

Altogether, as we can see, slow fashion ideas follow mostly the main philosophy of SDG 12 with alternative solutions of a non-linear business and supply chain model.

It is also vital to see the possible dissimilarities between the two concepts, which gives us a better understanding on the connection between slow fashion and SDG 12. The most prominent difference is the idea of the now used linear model's growth focused operation where slow fashion, unlike SDG 12, rejects the linear trend and its operation methods. Since SDG 12 does not fully rule out the idea of linear growth, the concepts deviate from each other over this notion. In this regard, it can be implicated that the slow fashion movement mostly supports many elements from UN's SDG 12 - Responsible Production and Consumption, but in one main proposition – linear growth-based models – slow fashion offers a somewhat more extreme solution with an innovative and holistic take on business model and production practices (Chhabra, 2022). Of course, this can cause a debate whether this major difference of economic understanding could limit the successful integration of slow fashion production and business practices, nevertheless it is indisputable that the main principles of slow fashion do support some of SDG 12's main propositions.

Overall, it can be concluded that based on the United Nations' (2023) sources, the principle of slow fashion integrates almost all sets of indicators when talking about production, with an additional concept of a “slower” economic mechanism.

Conclusion

The imminent problem of unsustainable practices in fashion has reached its limit with unethical and unsafe work patterns, environmentally harmful attitudes, and the ignition of society with fast-paced bi-weekly consumption promotion.

Many in the field of policy and academics realise the seriousness of the problem of unsustainable practices, where then general approach was made with the creation of Sustainable Development Goals where one principle specifically aims at the question of responsible and sustainable production and consumption (SDG 12). From then on, experts in the field started to apply general sustainability concepts to specific industries to find direct and practical solutions to harmful activities. The same happened to the fashion industry as well, since fast fashion took over with a mindset controlled by economic growth and an always expanding profit as goal. At first, sustainable fashion appeared with the idea of sustainable business models where sustainable developments' all three pillars were included as base principles of the notion. To further transfer this ideation into practice, experts brought in the approach of circular business models. With the development of CBMs, even more awareness seemed to emerge. Even though the progress, the practical implementation of the initiation lacked one of the three pillars which were the societal aspect. The model only concerned the societal and ethical issues as secondary, whereas the three pillars need to be handled equally. For the following reason – furthermore to contrast the fast fashion model –, a new philosophy emerged from the Slow Food movement, slow fashion itself. Similarly, to its predecessors, slow fashion aims to be more than a simple idea, it denotes a new philosophy within society, an overall radical change within production and consumption, where in extension, circular economy, SDG 12, and sustainable fashion concepts meet at the same time. With looking deeper into the manner, the paper discovered that there is a need to discover slow fashions main dimensions in order to see if it truly supports SDG 12 principles. Without the set dimensions and a proper definition, the philosophy can be misrepresented if given author adopts it incorrectly. Therefore, without a doubt there is a need for an overview of existing descriptions to tackle the main pinpoints of the philosophy itself. To fill this gap, the research explored one of

the biggest databases, SCOPUS to find current literature on the matter. With the detected and selected articles, a content analysis was conducted to determine the main used dimensions of slow fashion. The findings of the analysis brought up some interesting observations with the possibilities of further broadening the concept. With the result of the analysis the paper found 14 main dimensions of slow fashion, which fully covered all aspects of the philosophy. The findings further showed that from the detected 14 dimensions, authors often used only 4 of them when talking about the term, which can be thanked to the different interpretations of the writers. This can give us the idea that the authors might use the concept's general ideas as explanatory aspects and apply the other dimensions as practical features or sub-categories.

When looking at the possible similarities and dissimilarities of the two ideas, the research first had to understand the basis of SDG 12 and slow fashion at the same time. Here the collected dimensions of slow fashion and the set goals of SDG 12 were analysed, to see if there are any parallels between the two concepts. Based on this method, the study first focused on the possible similarities between SDG 12 and slow fashion, where it was found that slow fashion includes 7 main ideas of SDG 12 regarding production practices. As for the dissimilarities, there were one main ideation which majorly differs between the two concepts, this was the economic approach of the two concepts. While slow fashion rejects the current growth-based linear operation, SDG 12 does not fully distance itself from the growth-centred operation idea, by this causing a contradiction between their basic "philosophical" elements. This of course can result in a debate if we are talking about possible solution approach benchmarking between the two concepts, however it can be concluded that slow fashion's practical solutions mostly fit into SDG 12's notions with an additional belief of a "slower" economic mechanism.

References

- Abbate, S., Centobelli, P., & Cerchione, R. (2023). From Fast to Slow: An Exploratory Analysis of Circular Business Models in the Italian Apparel Industry. *International Journal of Production Economics*, Volume 260, 108824. <https://doi.org/10.1016/j.ijpe.2023.108840>
- Alisha Legere, J. K. (2020). The role of self-concept in shaping sustainable consumption: A model of slow fashion. *Journal of Cleaner Production*, Volume 39, Issue 2, Pages 188-207.
- Aprianingsih, A. F. (2022). Slow fashion purchase intention drivers: an Indonesian study. *Journal of Fashion Marketing and Management*, Pages 1-16, DOI: 10.1108/JFMM-07-2021-0176.
- Barnes, L. L.-G.-N. (2013). An exploratory study of the decision processes of fast versus slow fashion consumers. *Journal of Fashion Marketing and Management: An International Journal*, Volume 17, Issue 2, Pages 141-159, <https://doi.org/10.1108/JFMM-02-2011-0045>.
- BERNARDES, J. M. (2018). A new and sustainable service to slow fashion brands. *Industria Textila*, Volume 69, Issue 2., Pages 152-157, DOI:10.35530/IT.069.02.1528.
- Birte Freudenreich, S. S. (2020). Developing sufficiency-oriented offerings for clothing users: Business. *Journal of Cleaner Production*, Volume 247, Article number 119589. DOI: <https://doi.org/10.1016/j.jclepro.2019.119589>
- Bruna Villa Todeschini, M. N.-d.-M. (2017). Innovative and sustainable business models in the fashion industry: Entrepreneurial drivers, opportunities, and challenges. *Business Horizons*, Volume 60, Issue 6, Pages 759-770. <https://doi.org/10.1016/j.bushor.2017.07.003>
- Busalim, A. F. (2022). Consumer behavior in sustainable fashion: A systematic literature review and future research agenda. *International Journal of Consumer Studies*, Volume 46, Issue 5, Pages 1804-1828, <https://doi.org/10.1111/ijcs.12794>.
- Chakraborty, S. S. (2023). Can a connection with the indigenous cultural values encourage sustainable apparel consumption? *Journal of Fashion Marketing and Management*, Volume 27, Issue 1, Pages 80-99, <https://doi.org/10.1108/JFMM-07-2021-0191>.

- Chhabra, S. S. (2022). Factors Affecting the Adoption of Slow Fashion – An Exploratory Study of Multiple Stakeholders. *Journal of Macromarketing*, Volume 42, Issue 4, Pages 492-509, <https://doi.org/10.1177/02761467221116294>.
- Essi Vesterinen, H. S. (2022). Sustainable anti-consumption of clothing: A systematic literature review. *Cleaner and Responsible Consumption*, Volume 5, Article number 100061. DOI: <https://doi.org/10.1016/j.clrc.2022.100061>
- Federico Caniato, M. C. (2012). Environmental sustainability in fashion supply chains: An exploratory case based research. *International Journal of Production Economics*, Volume 135, Issue 2, Pages 659-670. <https://doi.org/10.1016/j.ijpe.2011.06.001>
- Fletcher, K. (2008). Conclusions. In K. Fletcher, *Sustainable fashion and textiles; Design Journeys; Second Edition* (old.: 240 - 241). London: Earthscan. <https://doi.org/10.4324/9781849772778>
- Fletcher, K. (2008). Speed. In K. Fletcher, *Sustainable Fashion and Textiles; Design Journeys; Second Edition* (old.: 189-220). London: Earthscan. <https://doi.org/10.4324/9781849772778>
- Fletcher, K. (2014). Sustainable fashion and textiles; Design Journeys. In K. Fletcher, *Sustainable fashion and textiles; Design Journeys*. London: Routledge.
- Garami Mária, R. Z. (2023). Certain aspects of decent and sustainable work, with a special focus on the economic and. *Észak-magyarországi Stratégiai Füzetek*, XX. évfolyam, page 121, <https://doi.org/10.32976/stratfuz.2023.10>.
- Gupta, S. G. (2019). The Role of Style Versus Fashion Orientation on Sustainable Apparel Consumption. *Journal of Macromarketing*, Volume 39, Issue 2, Pages 188-207, <https://doi.org/10.1177/0276146719835283>.
- Jodie West, C. S. (2021). A bottom up approach to slowing fashion: Tailored solutions for consumers. *Journal of Cleaner Production*, Volume 296, Article number 126387. <https://doi.org/10.1016/j.jclepro.2021.126387>
- Julia Adamkiewicz, E. K. (2022). Greenwashing and sustainable fashion industry. *Current Opinion in Green and Sustainable Chemistry*, Volume 38, 100710. <https://doi.org/10.1016/j.cogsc.2022.100710>
- Julian Kirchherr, D. R. (2017). Conceptualizing the circular economy: An analysis of 114 definitions. *Resources, Conservation and Recycling*, Volume 127, Pages 221-232. <https://doi.org/10.1016/j.resconrec.2017.09.005>
- Keith, S. S. (2015). New life luxury: upcycled Scottish heritage textiles. *International Journal of Retail and Distribution Management*, Volume 43, Issue 10-11, Pages 1051-1064, <https://doi.org/10.1108/IJRDM-07-2014-0095>.
- Lira, J. C. (2022). Theory of planned behavior, ethics and intention of conscious consumption in Slow Fashion Consumption. *Journal of Fashion Marketing and Management*, Volume 26, Issue 5 Pages 905-925, <https://doi.org/10.1108/JFMM-03-2021-0071>.
- Magnuson, B. R. (2017). Re-visiting an old topic with a new approach: the case of ethical clothing. *Journal of Fashion Marketing and Management*, Volume 21, Issue 3, Pages 400-418, <https://doi.org/10.1108/JFMM-10-2016-0091>.
- Marina P.P. Pieroni, T. C. (2019). Business model innovation for circular economy and sustainability: A review of approaches. *Journal of Cleaner Production*, 198-216. <https://doi.org/10.1016/j.jclepro.2019.01.036>
- Marvin Henry, T. B. (2020). A typology of circular start-ups: An Analysis of 128 circular business models. *Journal of Cleaner Production*, Volume 245, 118528. <https://doi.org/10.1016/j.jclepro.2019.118528>
- McNeill, L. S. (2019). Slow fashion – Balancing the conscious retail model within the fashion marketplace. *Australasian Marketing Journal*, Volume 27, Issue 4, Pages 215-223, <https://doi.org/10.1016/j.ausmj.2019.07.005>.

- Musova, Z. M. (2021). Consumer attitudes towards new circular models in the fashion industry. *Journal of Competitiveness*, Volume 13, Issue 3, Pages 111-128, <https://doi.org/10.7441/joc.2021.03.07>.
- Nations, U. (2023). *Ensure sustainable consumption and production patterns*. Forrás: TARGETS AND INDICATORS: <https://sdgs.un.org/goals/goal12>
- Nations, U. (2023). *GOAL 12: Sustainable consumption and production*. Forrás: United Nations environment programme: <https://www.unep.org/explore-topics/sustainable-development-goals/why-do-sustainable-development-goals-matter/goal-12>
- Nußholz, J. L. (2017). Circular Business Models: Defining a Concept and Framing an Emerging Research Field. *Environmental Sustainability and Applications*. <https://doi.org/10.3390/su9101810>
- Overdiek, A. (2018). Opportunities for slow fashion retail in temporary stores. *Journal of Fashion Marketing and Management*, Volume 22, Issue 1, Pages 67-81, <https://doi.org/10.1108/JFMM-05-2017-0042>.
- Ozdamar Ertekin, Z. A. (2015). Sustainable Markets: Motivating Factors, Barriers, and Remedies for Mobilization of Slow Fashion. *Journal of Macromarketing*, Volume 35, Issue 1, Pages 53-69. <https://doi.org/10.1177/027614671453593>
- Piera Centobelli, S. A.-R. (2022). Slowing the fast fashion industry: An all round perspective. *Current Opinion in Green and Sustainable Chemistry*, Vol. 38. <https://doi.org/10.1016/j.cogsc.2022.100684>
- Prado, N. d. (2022). Sustainability in fashion retail: literature review and bibliometric analysis. *Gestao e Producao*, Volume 29, Article number e13322, <https://doi.org/10.1590/1806-9649-2022v29e13322>.
- Prothero, A. M. (2015). Introduction to the Special Issue: Sustainability as Megatrend II. *Journal of Macromarketing*, Volume 35, Issue 1, Pages 7-10, <https://doi.org/10.1177/0276146714556818>.
- Ramonienè, L. (2023). Sustainability motives, values and communication of slow fashion business owners. *Journal of Philanthropy and Marketing*, <https://doi.org/10.1002/nvsm.1788>.
- Reimers, V. M. (2016). The academic conceptualisation of ethical clothing: Could it account for the attitude behaviour gap? *Journal of Fashion Marketing and Management*, Volume 20, Issue 4, Pages 383-399, <https://doi.org/10.1108/JFMM-12-2015-0097>.
- Richa Gupta, A. K. (2022). Chapter 10 - Waste management in fashion and textile industry: Recent advances and trends, life-cycle assessment, and circular economy. In *Emerging Trends to Approaching Yero Waste; Environmental and Social Perspectives* (old.: 215-242). Elsevier Inc. <https://doi.org/10.1016/B978-0-323-85403-0.00004-9>
- Sakhhi Chhabra, S. S. (2022). Factors Affecting the Adoption of Slow Fashion – An Exploratory Study of Multiple Stakeholders. *Journal of Macromarketing*, Vol. 42(4) 492-509. <https://doi.org/10.1177/02761467221116294>
- Sanjukta Pookulangara, A. S. (2013). Slow fashion movement: Understanding consumer perceptions - An exploratory study. *Journal of Retailing and Consumer Services*, Volume 20, Issue 2, Pages 200-206. <https://doi.org/10.1016/j.jretconser.2012.12.002>
- Sellitto, M. V. (2022). Comparing Competitive Priorities of Slow Fashion and Fast Fashion Operations of Large Retailers in an Emerging Economy. *Global Journal of Flexible Systems Management*, Volume 23, Issue 1, <https://doi.org/10.1007/s40171-021-00284-8>.
- Şener, T. B. (2019). Sustainable dressing: Consumers' value perceptions towards slow fashion. *Business Strategy and the Environment*, Volume 28, Issue 8, Pages 1548-155, <https://doi.org/10.1002/bse.2330>.
- Shen, B. (2014). Sustainable Fashion Supply Chain: Lessons from H&M. *Sustainability in Fashion Business Operations*, 6236-6249. <https://doi.org/10.3390/su6096236>

- Shih, W. A. (2017). Competitiveness in a Slow Relational Production Network: The Case of London's Savile Row Tailors. *Clothing and Textiles Research Journal*, Volume 35, Issue 3, Pages 143-155, <https://doi.org/10.1177/0887302X17690023>.
- Sinha, P. S. (2022). A systematic review and future research agenda for sustainable fashion in the apparel industry. *Benchmarking: An International Journal*, 1463-5771. <https://doi.org/10.1108/BIJ-02-2022-0142>
- Sobreira, É. S. (2020). Do empowerment and materialism influence slow fashion consumption? Evidence from Brazil. *Journal of Fashion Marketing and Management*, Volume 24, Issue 3, Pages 415-435, <https://doi.org/10.1108/JFMM-08-2019-0176>.
- Sojin Jung, B. J. (2014). A theoretical investigation of slow fashion: sustainable future of the apparel industry. *International Journal of Consumer Studies*, 510 - 519.
- Sung, J. W. (2019). Investigating male consumers' lifestyle of health and sustainability (LOHAS) and perception toward slow fashion. *Journal of Retailing and Consumer Services*, Volume 49, Pages 120-128.
- Stefan Seuring, M. M. (2008). From a literature review to a conceptual framework for sustainable supply chain management. *Journal of Cleaner Production*, 1699-1710. <https://doi.org/10.1016/j.jclepro.2008.04.020>
- Szilágyi-Csüllög Mónika, D. A. (2021). "Fashion is an imprint of an era" - Consumer acceptance of sustainable fashion after the. *Észak-magyarországi Stratégiai Füzetek*, XVIII. évfolyam, 3, Page 37, <https://doi.org/10.32976/stratfuz.2021.41>.
- Tim Cooper, S. C. (2022). Garment failure causes and solutions: Slowing the cycles for circular fashion. *Journal of Cleaner Production*, Volume 351. <https://doi.org/10.1016/j.jclepro.2022.131394>
- Todeschini, B. C.-d.-M. (2017). Innovative and sustainable business models in the fashion industry: Entrepreneurial drivers, opportunities, and challenges. *Business Horizons*, Volume 60, Issue 6, Pages 759-770. <https://doi.org/10.1016/j.bushor.2017.07.003>
- Trejo, H. S. (2019). Made in New York: A Collaborative Model to Encourage Slow Fashion. *Clothing and Textiles Research Journal*, Volume 37, Issue 3, Pages 139-154, <https://doi.org/10.1177/0887302X19838331>.
- Xue, X. C. (2022). Consumption of traditional handicraft fashion: Motivations, intentions and behaviours of Chinese consumers. *Cleaner and Responsible Consumption*, Volume 4, Article number 100046, <https://doi.org/10.1016/j.clrc.2021.100046>.

Appendix

Dimensions of the (Fletcher, 2008)	diversity/ authenticity	product quality	long lead time	small-scale production	traditional craft techniques	local materials and production	local market	sustainably aware design process and production	ethical labour	sustainable resource flow	community centred	high product cost	environmental and ecosystem awareness	philoso-phical view/ approach
(Todeschini, 2017)	X	X				X	X	X	X		X		X	
(Pookulangara, 2013)								X	X	X	X		X	X
(Ozdamar Ertekin, 2015)	X	X		X				X		X			X	X
(Sojin Jung, 2014)	X	X		X		X	X	X	X	X			X	
(Barnes, 2013)	X	X						X		X			X	
(Birte Freudenreich, 2020)		X						X					X	
(Alisha Legere, 2020)	X	X				X	X	X	X		X		X	X
(Gupta, 2019)	X	X						X		X			X	
(Reimers, 2016)		X	X					X	X				X	
(Sung, 2019)		X				X	X	X	X		X		X	
(Musova, 2021)		X					X	X	X				X	
(Magnuson, 2017)		X			X			X					X	
(Şener, 2019)		X		X	X	X	X	X	X	X	X	X	X	
(Keith, 2015)		X		X	X	X	X	X	X		X		X	
(McNeill, 2019)		X						X					X	X
(Overdiek, 2018)	X			X		X			X				X	X
(Prothero, 2015)		X						X	X		X		X	
(Trejo, 2019)	X	X				X	X	X	X				X	X
(Sobreira, 2020)	X	X		X		X	X	X	X		X		X	X
(Jodie West, 2021)	X	X						X	X		X	X	X	
(Busalim, 2022)		X						X	X		X		X	
(Lira, 2022)	X	X		X	X	X	X	X	X	X	X	X	X	X
(Bernardes, 2018)								X		X	X		X	
(Sellitto, 2022)		X	X	X								X		

(Essi, 2022)	X	X		X	X	X	X	X	X		X		X	
(Shih, 2017)	X	X			X	X		X	X				X	
(Xue, 2022)		X			X	X			X		X	X	X	
(Chakraborty, 2023)	X				X	X	X		X				X	
(Sinha, 2022)		X						X	X	X			X	
(Chhabra, 2022)	X	X			X	X	X	X	X		X		X	X
(Prado, 2022)	X	X		X		X		X	X	X	X			
(Ramoniené, 2023)		X		X	X	X	X		X	X		X	X	
(Aprianingsih, 2022)	X	X		X		X	X	X	X	X			X	
TOTAL	17	29	2	12	$\frac{1}{0}$	18	15	28	25	12	16	6	31	9

Source: Own work