Knitting a Way to Sustainability

An analysis of the slow fashion principles' implementation in Lithuanian slow fashion design and production

Ieva Zilinskaite

LUCSUS

Lund University Centre for
Sustainability Studies

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Supervisor: Maryam Nastar, LUCSUS, Lund University

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Abstract

Many scholars agree that current fast fashion system is highly unsustainable and causes many environmental and social challenges worldwide. Given this, the main aim of this thesis is to explore the concept of *slow fashion* and understand its potential benefits, contributing to sustainability within the current fashion system. On one hand, slow fashion represents an alternative production and consumption path, challenging the unsustainable model of fast fashion. Slow fashion is based on environmental and social consciousness towards the life-cycle of garment, including design, production, distribution and consumption. On the other hand, slow fashion is also criticized because of the high costs of items, resulting from its social and environmental prerequisites.

To evaluate the sustainability of the concept, a set of slow fashion principles and practices was gathered upon the revision of academic literature. The principles collected were related to both environmental and social aspects of sustainability and included: *environment, waste strategies, functionality, localism, authenticity, exclusivity* and *equity*. These principles constituted to the analytical framework, summarizing the processes intrinsic to slow fashion production. Based on this framework, I analyzed how the theoretically defined slow fashion principles correspond with the real practices employed by the slow fashion designers and producers. The analysis was done for the selected case of Lithuania, as a representation of Western society, showing signs of interest in slow fashion production. Eight qualitative interviews were conducted with Lithuanian slow fashion designers and producers to evaluate the practical implementation of the slow fashion principles.

The findings suggested multiple discrepancies between the theoretical slow fashion principles and practices and the actual slow fashion production in Lithuania. Some principles were applied very well, while few principles were omitted. Findings also suggest there were certain internal and external barriers for successful slow fashion production implementation, such as foreign material sourcing, equitable processes, the non-application of low-impact materials, its availability and price.

Based on the obtained results, the sustainability of the slow fashion production processes were evaluated in terms of the three dimensions of justice and fairness in relation to the broader context of sustainability goals (SDGs). The slow fashion production processes appear to be compatible with intergenerational and intersectional justice and related to sustainability goals. Yet, the aspect of international justice needs improvement. This suggests that slow fashion production could be considered sustainable only to some extent. The ideological impacts to sustainability are visible, however the actual impacts meet certain boundaries, which slow fashion production has to overcome in order to be fully sustainable.

Keywords: Slow fashion, slow fashion production, Lithuania, sustainability science.

Word count (thesis): 13, 935

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"The road was long and rocky" …

I like to say that this thesis is a result of my deep concern and anger towards the all destroying model of fast fashion. However, this 'academic anger' would probably never translate into reality (as some of slow fashion principles did), if I would have travelled this rocky road own by myself.

As my sweet auntie use to say: *'We only born and die alone'*. Yet I strongly believe that all the great things we do or achieve in life we would barely ever achieve alone. Therefore, I want to express all my gratitude to the people, who inspired, helped and supported me along the way.

First of all, I want to thank my parents, who not even knowing what I study (because it's like ecology), were constantly checking on my progress and made me going further. I strongly knew I could not let you down (this time). Also, only your support gave me a chance to get out of my 'comfort zone' and study abroad. I know you were surprised at the first, but thank you so much for supporting this adventure of mine.

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1. Introduction

1.1 Problem definition

Over the past few decades, the demand and consumption rates for clothing and fashion in affluent Western societies increased dramatically and became an essential part of its lifestyle (Lawless & Medvedev, 2015). In the wake of this, a new wave of apparel manufacturing called the *fast fashion* appeared, seizing the economic opportunity of the ever growing needs of Western societies. This amplified popularity dictated a business model of growth, applied by the majority of fast fashion brands[1] (Fletcher, 2010). It is characterized by fast and intense product manufacturing cycles, low prices and reduced quality, which, coupled with planned obsolescence, contribute to the accelerated fashion overconsumption and throw-away culture in the West (Kozlowski, Bardecki, & Searcy, 2012; Pookulangara & Shephard, 2013). This resulted not only in magnified economic gains[2] for fast fashion industry, but also created significant environmental and social challenges worldwide (Fashion United, 2017).

Due to these challenges, scholars consider the fast fashion system as highly unsustainable (Fletcher, 2010; Jung & Jin, 2016a; Kozlowski et al., 2012; Pookulangara & Shephard, 2013). First of all, numerous environmental effects are becoming apparent, since the supply-chain of this industry is very complex and natural resource intensive (Cataldi, Dickson, & Grover, 2010a). Natural fabrics such as cotton, silk and wool are land and water exhaustive, which are necessary for irrigation and material processing (Caniato, Caridi, Crippa, & Moretto, 2012). Synthetic fabrics, in comparison, rely on fossil fuels and contain harmful and toxic materials used in production (Niinimäki, 2015b). Secondly, the distribution of fabrics uses non-renewable fossil fuels and generate significant carbon footprint contributing to climate change (Cataldi et al., 2010a; IPCC, 2014). Lastly, poor fabric quality and simplified manufacturing techniques reduce item quality and lifespan, which are the main causes of textile waste, filling up massive landfills worldwide (Shepard & Pookulangara, 2013).

Apart from the damaging environmental impacts, there are also multiple social deficiencies in the fast fashion industry. These result from the structural changes in the business environment and the outsourcing of production to low-wage countries. The collapse of the Rana Plaza garment factory[3] in

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[1] The clothing brands like H&M, Zara, Top-Shop, Forever 21 are considered to be the main players in fast fashion industry.
[2] The estimated global fashion market is valued at 3 trillion dollars, accounting for 2% of the world's GDP. Source: (Fashion United, 2017).
[3] The collapse of Rana Plaza is considered the deadliest event in garment industry. It took lives of 1,129 garment workers and injured another 2,500 people, rescued from the collapsed factory. Rana Plaza primarily

2013, in the city of Savar Upazila (Dhaka district, Bangladesh), was the manifestation of a multitude of structural failures, underpinning actual social costs of the fast fashion production. Meanwhile, unsafe and unhealthy work conditions, long working hours, inadequate, below living range wages and even child labor, represent only the tip of the iceberg, challenging social well-being of people employed in the fast fashion industry (Fletcher, 2007; Jung & Jin, 2014; Kozlowski et al., 2012).

Consequently, all mentioned challenges comprise to a heavily unsustainable fast fashion system, signaling the urgent need of change towards more sustainable way of fashion production. Therefore, an alternative, low environmental and social impact production has to be considered, if we desire to meet today's fashion demands of our growing societies, without compromising the well-being of future generations. As a way to do so, the movement of *slow fashion* is proposed widely in the academic literature (Clark, 2008; Fletcher, 2010; Jung & Jin, 2014, 2016a; Langdown, 2014; Pookulangara & Shephard, 2013).

1.2 Potential response

The debate over the need for sustainability in the fashion industry is not new, yet the movement of *slow fashion* is seen as the most prominent alternative to fast fashion in the academic debate on sustainable apparel design and production. This movement is currently gaining momentum and includes more and more fashion producers, designers, retailers and consumers worldwide (Fletcher, 2007). Slow fashion unifies sustainable, eco-fashion, up-cycling, recycling, zero-waste fashion design and manufacturing techniques under a single umbrella, promoting social and environmental gains within the current fashion system (Cataldi et al., 2010a; Ertekin & Atik, 2015). Intrinsic to its philosophy is the quest for human well-being by "[…] combining ideas on cycles of regeneration and evolution in nature, with the ones related to values and traditions" (Pop, 2010, p. 547).

Growing awareness of the fast fashion unsustainability and slowly occurring changes in fashion system have not spared Lithuania. The slow fashion, despite its novelty, is a relatively known phenomenon and the interest in slow fashion principle-based apparel design and manufacturing is becoming more and more apparent in designer community and consumer culture (Antanavičiūtė & Dobilaitė, 2015; Daukantienė, 2015). The slow fashion tendency is especially visible in the social media, where the designers express their commitment to fashion sustainability and slow fashion. Therefore, in this thesis I will research on the slow fashion and its implementation by the Lithuanian slow fashion designers.

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manufactured apparel for the fast fashion brands like: Benetton, Mango, and Primark. The aftermath of the collapse followed massive garment workers protests in Dhaka region. Source: (Butler, 2013)

1.3   Research Aim & Questions

In general, the phenomena of slow fashion is a relatively unexplored topic the academic community (Shepard & Pookulangara, 2013). Current literature is more of the conceptual or exploratory purpose and the case studies are scarce. Therefore, the main aim of this thesis is to build a comprehensive study including: a) developing knowledge about the movement of slow fashion; b) defining the principles and practices of slow fashion; c) analyzing the slow fashion principles' implementation in the case of Lithuanian slow fashion design and production.

In order to properly address this aim, I pose these research questions:

RQ1: What are the principles of slow fashion?

> What are the environmental and social aspects of slow fashion contributing to sustainability?

> What are the limitations (critique) of the slow fashion concept?

RQ2: How are the slow fashion principles being implemented by slow fashion designers in Lithuania?

> What principles are being implemented in practice?

> What are the issues, preventing full implementation of the slow fashion principles?

> Why these issues exist?

RQ3: How sustainable is slow fashion after all?

2. Background

2.1 Lithuanian textile sector

The textile and clothing production is one of the key sectors in the Lithuanian economy and apparel manufacturing has long historically developed traditions and technologies (Jucevičius & Rybakovas, 2010). Currently there are 1,848 small and medium sized textile, apparel and leather enterprises, employing almost 30,000 workers in various Lithuanian cities (Enterprise Lithuania, 2016). In 2014, Lithuanian textile and clothing production was reported to be one of the fastest growing industries in the EU and the textile producer with the highest quality among the Baltic States (EURATEX, 2014). Suitable geographical position, relatively cheap and high qualified labor force, advanced technologies and infrastructure are the main features attracting the interest of investors, including popular fast fashion bands like H&M, Next and Marks and Spencer (Glinskienė, Daraškevičiūtė, & Lipinskienė, 2006; Novikevičiūtė & Lasiauskas, 2015; Toliusienė & Bargelis, 2012).

2.1.1 Environmental issues

Having a significant textile and clothing sector, but mostly adhering to the fast fashion production canons, makes Lithuania inclined to various environmental sustainability challenges, such as natural resource depletion and weighty textile waste accumulation. According to Glinskiene, Daraskeviciute & Lipinskiene (2006), the shortage of traditionally grown raw materials, such as flax are already becoming more and more apparent. Consequently, flax textile enterprises are forced to import part of their consumed flax fibers to satisfy all the local needs.

The situation with textile waste in Lithuania is even more complicated. In 2008, a comprehensive waste survey with textile, apparel and furniture producers was conducted. It revealed that waste accumulation, only in the apparel producing enterprises, comprised 40 percent of the total used fabric amount (Kazakeviciute, Ramanauskiene, & Abraitiene, 2008). Yet the most important finding revealed that only 29 percent of the apparel production generated waste was later sold or given away, whereas 71 percent ended up in landfills (Kazakeviciute et al., 2008). The latter is especially an issue, since textile waste is one of the largest parts of the Lithuanian communal waste. According to the Regional Waste Management Centre (LRATCA), about 716 tons of textile waste was disposed in landfills in 2015 (LRATCA, 2015). The textile waste problem amplifies with the absence of proper textile waste recycling systems and infrastructures (Antanavičiūtė & Dobilaitė, 2015). The industry

generated textile waste is currently being recycled by only one recycling company[4]. Yet, the consumer textile waste recycling system is still under development and has recycling containers only in the major cities of Lithuania (Antanavičiūtė & Dobilaitė, 2015).

2.1.2 Social challenges

Multiple social well-being deficiencies also feature Lithuanian textile and clothing sector. In general, minimum wages, working hours and workplace safety regulations are controlled and protected by the 'Labor Code of the Republic of Lithuania', which all industry entities must comply. However, according to Fair Wear Foundation report (2010), the majority of garment factories in Lithuanian seldom fulfill these requirements. The report indicates that due to low-skill requirements the salaries are very low with a minimum wage "not higher than the unemployment benefit" (Fair Wear Foundation, 2011, p. 1). Despite that, working hours in the garment factories vary from allowed 48 up to 60-80 hours per week. Due to poor wages, many employees engage in overtime work, often without monetary compensation, because the overtime hours are not registered and subsequently not paid.

Working and safety conditions, according to the report, vary from factory to factory (Fair Wear Foundation, 2011). However, the recent study about employee health status in 12 Lithuanian garment factories[5] revealed interesting results. The majority of garment workers were constantly affected by textile and dust containing chemical substances, but had no air conditioning at their workplace (Naruševičiūtė-Skripkienė, Moskalionė, & Grigaitienė, 2015). What is more, there were barely any training on occupational diseases and safety measures provided. As a result, many respondents complained having skin diseases and various skin problems (Naruševičiūtė-Skripkienė et al., 2015). Consequently, all these mentioned factors and deficiencies determined that currently there is a significant shortage of qualified workers, willing to work in the Lithuanian textile and clothing sector (Piester, 2008).

In sum, the Lithuanian textile and clothing industry is an important part of Lithuanian production. However, despite its established economic benefits and opportunities, this sector encounters multiple environmental and social challenges, posing risks to its sustainability. Considering the tendency, that fashion and clothing consumption is projected to increase with growing purchasing power, mentioned issues will amplify in the nearest future (Novikevičiūtė & Lasiauskas, 2015).

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[4]'Antriteksa' is currently the only company recycling industry generated textile waste.
[5]The study was completed during the period of 2013-2014, in 12 randomly selected garment factories in 6 cities in Lithuania. In total 551 respondents participated in the survey. Source: (Naruševičiūtė-Skripkienė et al., 2015).

3. Literature review: Slow Fashion

In the scope of my RQ1, the existing academic literature about the slow fashion movement is presented in this section. It includes the overview of the slow fashion movement origins, relations to sustainability, principles and practices, and criticism.

3.1 Origins, philosophy and sustainability

The slow fashion movement in academic literature was firstly coined by sustainable fashion pioneer Kate Fletcher in 2007. Its name was derived from the grassroots movement named S*low Food*, which was established in 1986 by an Italian activist Carlo Petrini. Slow food was founded as a resistance movement, opposing the growing fast food culture and its standardization of taste (Fletcher, 2007). This movement initially defended locally and traditionally made food, its ingredients and making techniques, which were seen as an important part of the cultural identity and human well-being (Fletcher, 2007). Following this, the branches of other 'slow' movements appeared (slow city, slow design, slow retail or slow money), driven by the goal of reduced production and consumption (Cataldi et al., 2010a).

The slow fashion philosophy is related to the slow food movement, yet is more bound to sustainability. First, slow fashion emphasizes a holistic view to do business, which recognizes larger social, environmental and economic systems and their role in it (Shepard & Pookulangara, 2013). As Fletcher (2007), puts it: "slow fashion is about designing, producing, consuming and living better by considering environmental and social sustainability and by producing beautiful and conscious garments" (p. 71). This entails a particular set of slow fashion sustainability principles grounded in cultural, social, ethical and environmental values, contributing to natural and social well-being (Fletcher, 2010). Moreover, it stands in stark contrast to fast fashion, which represents a typical lock-in situation aiming for indefinite growth and profit maximization. Therefore, Fletcher (2010) sees slow fashion as an "invitation" to break this current lock-in up and leverage the social and environmental challenges it poses.

In general, there are two distinct aspects constituting the sustainable business model of slow fashion. First of all, it focuses eminently on reduced scale and speed of the production cycles, resulting in limited, high quality and equitably manufactured items (Fletcher, 2007; Niinimäki, 2015a). Secondly, it calls for reduced consumption, therefore encourages the consumers to purchase less, wear and appreciate their garment longer (Jung & Jin, 2016b). The approach of reduced overconsumption and downscaled production, according to Jung & Jin (2016b), "fundamentally results in reducing resource consumption and waste, as well as supporting a fair production system"

(p. 13). Therefore, slow fashion contributes to the health of the environment and the well-being of society and, subsequently, to sustainability (Jung & Jin, 2015). Due to these contributions slow fashion is often described with terms such as "sustainable", "environmentally-friendly", "socially responsible" or "ethical" fashion (Jung, 2014; Niinimäki, 2015a, 2015b; Pookulangara & Shephard, 2013).

3.2 The slow fashion principles

3.2.1 Slow fashion production

Slowing down of the production cycles is considered an intrinsic characteristic of slow fashion (Fletcher, 2007). With this inherent feature, slow fashion renounces mass production and creates fashion apparel only by taking individual orders or crafting smaller collections once or twice a year (Cataldi, Dickson, & Grover, 2010b). Such pace, allows the manufacturers and designers to take more time in producing a high quality item, as well as to reduce pressure on the natural systems, which can regenerate more easily (Fletcher, 2007; Jung & Jin, 2016a). Slower production also increases the well-being of the employees, since there is no time pressure to produce the garment quickly (Jung & Jin, 2014, 2016a). This allows securing the basic human rights and having fair, equitable and ethical treatment of employees, by providing regular working hours, permanent place, fair pay and appropriate working conditions (Jung & Jin, 2014, 2016a; Shepard & Pookulangara, 2013).

The design and manufacturing of slow fashion is considered to be environmentally-friendly (Cataldi et al., 2010a; Pookulangara & Shephard, 2013). This is mainly due to the selection of natural materials (bamboo, hemp), ecologic or organic materials, grown without pesticides and processed without nature-harmful and toxic materials. In addition, the slow fashion stands for the usage of low environmental impact materials, which would be sustainably produced or recycled, minimizing the consumption of natural resources (Niinimäki, 2015b). Lastly, the materials and fabrics should be ideally sourced locally, in order to minimize the use of fossil fuels and carbon emissions in transportation (Jung & Jin, 2016a).

Not only the material selection, but also the slow fashion production techniques are chosen based on their environmental sustainability performance. Since fast fashion production and consumption are seen as major textile waste streams, the slow fashion movement seeks to diminish the accumulated textile waste by using special management techniques. For instance, zero-waste, recycling, up-cycling or repair textile methods are used in the process of slow fashion creation and production (Cataldi et al., 2010a; Pookulangara & Shephard, 2013). The usage of these textile waste management strategies generates multiple environmental benefits. For example, it mitigates

methane emissions and ground water pollution caused by the decomposition of textile waste, usually ending up in landfills (Niinimäki & Hassi, 2011).

Furthermore, the principle of high quality is often mentioned by slow fashion scholars, as well is emphasized in slow fashion design and production (Clark, 2008; Jung & Jin, 2016a; Langdown, 2014; Pookulangara & Shephard, 2013). Initially, high quality is reached by slow manufacturing, investing time and attention to every single piece. Secondly, high quality is embodied in classic silhouettes, neutral colors and timeless design, unaffected by rapidly changing trends and styles (Jung & Jin, 2016a; Pookulangara & Shephard, 2013). To achieve timeless design, slow fashion designers use durable, versatile materials and advanced sewing techniques. They extend the lifespan of apparel, so it can be worn multiple seasons and also stay in style (Niinimäki & Hassi, 2011). This way, slow fashion represents a sustainable way of being stylish, without following changing fashion trends. Instead, consumers are encouraged to buy less, but high quality, durable and versatile items and wear them for years (Clark, 2008).

Finally, the principle of craftsmanship is accentuated in slow fashion (Clark, 2008; Langdown, 2014; Pookulangara & Shephard, 2013). This aspect is especially important for several reasons. Firstly, it allows creating high aesthetic and cultural value items, applying local, traditional hand-crafting techniques. Secondly, employing skilled domestic labor supports the local communities, working in the manufacturing sector (Clark, 2008; Langdown, 2014). As highlighted by Clark (2008) and Shepard & Pookulangara (2013), the inclusion of local craftsmanship provides employment possibilities, creates economic welfare and contributes to community cohesion, as well as increases the visibility of local crafting traditions and arts.

3.2.2 Slow fashion consumption

Apart from fashion design and production, slow fashion movement seeks to influence fashion consumption as well, and does it by various means (Jung & Jin, 2014; Pookulangara & Shephard, 2013). First of all, it encourages people to be mindful about their consumption (Fletcher, 2007). This is accomplished by raising the awareness on how their clothes are being made, what materials are being used and who made them. A way to show this is through the process of co-creation, practiced often by slow fashion designers (Cataldi et al., 2010a; Jung & Jin, 2016a; Niinimäki & Hassi, 2011). Co-creation process challenges the traditional fashion hierarchy of designer-producer-consumer and establishes a new way of power relations between them (Clark, 2008). This way, slow fashion designers provide a possibility for customers to be included in the process of apparel design and production, what strengthens the emotional ties between them and their clothes. Moreover, co-

creation increases customer awareness on how their clothes are being made as well as rises their accountability for their own consumptive behavior (Cataldi et al., 2010a; Shepard & Pookulangara, 2013).

To sum up, it could be said that slow fashion is not limited to the environmental side of sustainability alone, as it may occur on the first place (Jung & Jin, 2014). On the contrary, this concept is oriented to implement both – the environmental and the social aspects of sustainability. Due to this, slow fashion differs from, for example, eco-fashion, which is solely focused on organic material selection, waste minimization or recycling techniques (Jung & Jin, 2014). By introducing the holistic view into fashion design, production and consumption, slow fashion includes social side factors into account and promotes responsible and ethical efforts of fashion creation (Shepard & Pookulangara, 2013). These social efforts are embodied in the production mode based on low speed, local sourcing of materials and labor, supporting the local craftsmanship and the provision of equitable working conditions, contributing to social well-being creation.

3.3 Critique

Despite these social and environmental benefits, scholars have been criticizing slow fashion and indicated existing barriers for its successful implementation. I will particularly concentrate on three prevailing criticisms: a) the ambiguity of the concept; b) the limited slow fashion network; c) the higher prices of items and its implications.

3.3.1 The ambiguity of the concept

Since its introduction, there has been a great interest in the slow fashion concept, its production and consumption. Despite that, scholars highlighted that the overall knowledge of designers-producers and consumers towards slow fashion practices is generally low (Cataldi et al., 2010a; Ertekin & Atik, 2015; Pookulangara & Shephard, 2013). Therefore they are not aware how they can contribute to slow fashion, which is considered as an indicator for successful slow fashion implementation.

First of all, according to Cataldi et al., (2010b), most of the fashion designers still rely on style and design as their primary selling points and sustainability is seldom considered. This is mainly because the fashion design study programs are not integrated with sustainability education, therefore, design graduates depend on their personal knowledge about sustainable fashion practices application (Lawless & Medvedev, 2015). Nevertheless, scientists argue that this barrier could be leveraged by strengthening formal and informal the designers' education on values and ethics in fashion, and low-

impact practices to assure the fulfillment of the slow fashion practices (Cataldi et al., 2010b; Ertekin & Atik, 2015).

Secondly, there is a considerable lack of awareness from the consumers' side (Ertekin & Atik, 2015). Even though their behavior towards fashion consumption in affluent societies is slowly changing, yet greater awareness and information is still lacking (Cataldi et al., 2010b; Ertekin & Atik, 2015; Shepard & Pookulangara, 2013). Therefore, the consumers seldom know how their clothes are being made and what the cost of their overconsumption is. Strengthened education systems aiming to increase knowledge about the sustainable fashion usage and the creation of a slow fashion label is proposed to overcome this consumer ignorance (Cataldi et al., 2010b; Ertekin & Atik, 2015). According to Cataldi et al., (2010b), distinct labeling would enhance the visibility of sustainably made slow fashion products and guide the sustainability communication from producers to consumers. The proposed labeling scheme is currently not in place due to the absence of the unified slow fashion network.

3.3.2 Limited network

The second barrier touches upon the size, the strength and the degree of organization of the slow fashion network. According to Cataldi et al. (2010), the movement of slow fashion is highly disorganized, i.e. their activities are scattered and there is no global visible network of the movement and its members. Yet, solid national networks in countries like UK, Sweden and Denmark are emerging (Ertekin & Atik, 2015). These formalization processes are, however, only in their early stages, still limiting the movement's potential to attract resources from national and global organizations and to raise the awareness about sustainable consumption and production (Cataldi et al., 2010b). Based on this, some scholars doubt whether slow fashion movement will extend on larger scale and whether it will be able to challenge the mainstream fast fashion industry (Ertekin & Atik, 2015).

3.3.3 Higher prices and its implications

The majority of scholars draw an association between the slow fashion and higher item prices, which distinct them greatly from the cheap fast fashion (Fletcher, 2010; Johansson, 2010; Jung & Jin, 2016a). The underlying reason for this rests upon several aspects, closely related to the way slow fashion items are produced. For instance, the assurance of fair wages and secure work conditions, the inclusion of hand-made craftsmanship and the usage of high quality, sustainable materials, contribute to the elevated prices (Cataldi et al., 2010b; Clark, 2008; Pookulangara & Shephard, 2013). As the concept pioneer Fletcher (2010), puts is: "It [slow fashion] prices the garments higher than in growth model [fast fashion] to reflect its true ecological and social costs" (Fletcher, 2010, p.

264). Therefore, slow fashion activists claim, that by the increased production prices they also increase the awareness of the irresponsible consumption behavior, encouraging people of having less, but better quality and subsequently, more expensive clothes (Cataldi et al., 2010b; Fletcher, 2007; Jung & Jin, 2016a).

However, such approach is sometimes accused of being elitist, due to the required investment, which might be considered too high by the broader society (Clark, 2008; Leslie, Brail, & Hunt, 2014). As pointed out by Ertekin & Atik (2015), the price still plays a critical role in the majority of the Western consumers' purchase decisions. Therefore, if the price is high, consumers may ignore the slow fashion's effort on reduced environmental impacts and fairly paid manufacturing. As a result, scholars argue that only wealthier people can actually afford purchasing slow fashion items (Ertekin & Atik, 2015). This implies a particular issue for social sustainability and fairness, since a situation of unequal participation is created.

Looking from a broader sustainability perspective, the situation of unequal participation runs contrary to sustainable consumption policies and programs promoted by the developmental organizations, such as the UN. The UN Sustainable Development Goals (SDGs) promotes, for example, responsible consumption under the Goal 12: 'Ensure sustainable consumption and production patterns'. The notion of this goal is the acknowledgement of the overconsumption (especially textile) in affluent societies, heavily contributing to the augmentation of the main sustainability challenges, especially environmental degradation, pollution and climate change (UN, 2015c). Based on Goal 12, the UN suggests behavioral change towards general consumption reduction and encourages sustainably and locally produced purchases in the West. However, if the sustainably and locally manufactured products, including slow fashion, can be only be afforded by the wealthier segment of society, it limits the effort of reducing consumption and of promoting sustainable production, ultimately challenging the success of the SDGs.

4. Analytical framework

In order to research the slow fashion phenomenon in Lithuania an analytical framework was developed (Figure 1). This analytical framework presents a comprehensive outline of slow fashion principles and practices, which were identified environmentally and socially beneficial, by performing the literature review (Section 3). By using this analytical framework, I aim to understand the development path of slow fashion design and production in Lithuania and see how the conceptual principles of slow fashion are mirrored in an actual slow fashion design and production. Besides, this framework will also allow me to identify the potential challenges to the slow fashion principles implementation in Lithuania.

Figure 1. The analytical framework represents the seven principles and practices of the Slow Fashion. Green boxes (Environment-Waste Strategies-Functionality) represent the environmental side of sustainability related principles and practices. Purple boxes (Localism-Authenticity-Exclusivity-Equity) represent social side of sustainability related principles and practices. This framework is created based on the academic literature review (Section 3) and the Jung & Jing (2014) article. The idea for model layout is adapted from: (Søderlund & Berg, 2015).

4.1 Principles and practices

The presented analytical framework consists of the seven principles "Environment, Waste Strategies, Functionality, Localism, Authenticity, Exclusivity and Equity", summarizing the slow fashion design and production practices, identified in the completed literature review (Section 3).

The first two principles, *environment* and *waste strategies,* represent the environmental side of the slow fashion concept. The *environment* principle focuses on the environment-friendly practices related to the material, fabric, yarn (natural, organic, ecologic) selection and natural resource usage efficiency (materials, electricity, water, transport, packaging) in the production processes (Cataldi et al., 2010a; Jung & Jin, 2016a; Shepard & Pookulangara, 2013). The *waste strategies* principle concentrates on the textile waste accumulation processes and the management strategies slow fashion designers apply to minimize waste products in the production stages.

The remaining five principles of *functionality, localism, exclusivity, authenticity and equity* were adapted based on Jung & Jin (2014) article "A theoretical investigation of slow fashion: sustainable future of the apparel industry". There, the authors draw these five theoretical dimensions of slow fashion, representing the following slow fashion principles.

Firstly, the principle of *functionality* is considered contributing to the environmental side factors, since it emphasizes the high quality of items, their durability and versatility. Upon this principle, the lifespan of slow fashion clothes is maximized, preventing it from obsolescence and unnecessary textile waste. Furthermore, the *localism* principle suggests using only locally produced materials and fabrics, having locally based production and employing workers from the local communities. Thirdly, *authenticity* entails the employment of craftsmanship, hand-crafting and local traditional techniques in order to enrich the item with a local and historic background. *Exclusivity* refers to small scale production, manufacturing based on individual orders and involving co-creation practices in order to counterbalance the homogeneity of the fast fashion production. Lastly, the *equity* principle addresses the social sustainability aspect of the slow fashion production, assuring the well-being of the employees, their rights to fair pay, acceptable working hours and secure working conditions (Jung & Jin, 2014).

5. Methodology

5.1   Research design: Case Study

This thesis, first and foremost, is guided by the qualitative research approach. The design of the study could be classified as qualitative case study. Using a case study was chosen as a suitable approach due to several reasons. First of all, a case study is perfect for uncovering complex, real-life issues such as the sustainability challenges of the current fashion industry (Flyvbjerg, 2006). Second of all, this method allows the researcher to pursue an in-depth, comprehensive study and enables deeper understanding about the case at hand (Yin, 1994). Lastly, due to the inclusion of multiple examples within the case study, a better insight about the slow fashion processes is achieved, offering better chances of drawing important generalizations for future slow fashion studies (Stake, 2005).

However, a case study design also holds limitations. For instance, the results of a single case study, which belongs to particular economic, social and cultural background, might not be repeatable in the other contexts (Niinimäki & Hassi, 2011). Besides, there is a prevailing notion that one cannot generalize based on a single case study and, therefore, cannot contribute to scientific knowledge and theory building (Flyvbjerg, 2016). However, according to Flyvbjerg (2006; 2016), these limitations can be leveraged. As he claims, that not only the case studies can generate repeatable results and build scientific knowledge, but also one can safely generalize based on their results (Flyvbjerg, 2016).

This study is focused on the case of Lithuania. According to case differentiation by Flyvbjerg (2016), Lithuania is identified as a representative case of a Western society, facing fast fashion implied environmental and social effects, but showing signs of change in the production prevailing system. The unit of analysis in this case study is the micro-organizations engaged with slow fashion design and production within the state of Lithuania.

5.2   Methods for data collection

In order to answer the research questions of my thesis two major methodological steps were performed:

I.   The literature review was done in order to gather the existing theoretical information about the slow fashion phenomenon and to construct the analytical framework.

II. The empirical data collection using the primary and secondary sources was performed to understand how slow fashion principles are being implemented in Lithuania.

5.2.1 Literature review

In order to answer my RQ1, the method of non-systematic literature review was applied. I chose this method in order to a) build an extensive knowledge about the slow fashion concept, its principles and related practices and b) develop and analytical framework to be applied in further analysis. The literature selection was completed using the electronic databases of Scopus and LUB search, also Google Scholar. These databases were selected due to the article accessibility, relevancy and credibility.

To search for literature I used these keywords: 'slow fashion', 'slow fashion movement', 'sustainable fashion'. The initial search resulted in 15 relevant academic articles. Hence, I decided to expand the scope of my revision and used the 'snowball method', which allowed selecting additional thematically relevant articles from the reference lists of the already chosen papers. After the second literature search a total of 23 articles were included into the literature review. All my used sources were peer-reviewed articles in English or Lithuanian.

5.2.2 Empirical data collection

According to Yin (1994), a case study research methodology encourages the usage of various data sources for evidence collection. Therefore, the data collection in this stage was performed by employing a two-fold strategy. Firstly, secondary type information was gathered from the 'gray' literature sources found using the Google search engine. The keywords used were: 'slow fashion Lithuania', 'lėtoji mada Lietuvoje', 'lėta mada'. The results included a variety of relevant internet articles, on-line magazine interviews with slow fashion designers, their websites and related blog post.

Secondly, the information using primary sources was obtained. In order to do so I employed the method of qualitative interviews, which I have performed with Lithuanian slow fashion designers and producers. I have chosen this strategy for two reasons: a) because qualitative interviews are considered 'the essential source of case study evidence, because most case studies are about human affairs' (Yin, 1994, p. 85); b) because the information about slow fashion design and production in Lithuania is scarce.

5.3 Selecting the organizations

To select the organizations, the purposive sampling method was employed. According to Bryman (2012, p. 418), this method is suitable when searching for respondents, who would be "relevant to the research questions that are being posed" and, consequently, would be able to provide case

specific information. Based on this notion, an organization (brand) was selected, if they: a) state their support for slow fashion; b) follow its principles or c) declare their commitment to sustainable, responsible fashion principles in their cloth design and production. Such information was obtained from the organizations' official websites, Facebook (or any other social media) pages, independent lifestyle blog posts, interviews and online magazines. In addition, 2 slow fashion brands were included, after received recommendations. As a result, 12 Lithuanian slow fashion organizations were identified:

Table 1. Slow fashion brands in Lithuania. This table indicates 12 slow fashion brands in Lithuania, identified during the search.

"Muku"	"Ode to Sunday"	"Rūkė"	"Agnė Fashion"
"Baltai"	"The Knotty Ones"	"Yours Again"	"leKeckas"
"Tauri Look"	"Si design"	"Beleberda"	"OHMY"

5.4   Interview process

All 12 slow fashion organizations were contacted via email, asking for the possibility of conducting an interview. In total 8 organizations agreed to collaborate.

The interviews took place from March 27th until April 12th. As a result, 7 individual interviews with slow fashion brand representatives were performed and 1 written response was received via email. The individual interviews were conducted via various means: personal meetings, Skype or telephone, depending on the preference of the interviewee. The respondents were either owners or designers of each organization, responsible for both design and production processes. See Appendix II for the full list of interviews.

All interviews were guided by questions provided in the Appendix I. The interview questions were based on the analytical framework (Section 4), which covers the environmental and social slow fashion principles and practices for design and production. Interview questions were designed open-ended, giving the interviewee a possibility to express their opinion about the particular matter. The duration of the interview varied from fifteen minutes to approximately one hour, depending on the communication needs of the respondent and their dedicated time.

5.1 Data Analysis

According to methodical recommendations all interviews were transcribed right away (Bryman, 2012). The transcription was done by using the Express Scribe software. Subsequently, data analysis was performed. Firstly, the transcribed texts were coded using MAXQDA software, which assisted in thematic grouping of the respondents' answers. The data coding categories mirrored the logic of the analytical framework (Section 4). Secondly, thematically related answers were ordered and synthesized. Lastly, by using the method of qualitative content analysis the respondent answers were analyzed and presented in Section 6.

5.2 Ethical Considerations and Limitations

Academic ethics is an inseparable part of every scientific research (Bryman, 2012). The main ethical considerations in this thesis were in particular related to the conducting of the qualitative interviews. I aimed to carry out the research according to the four principles listed by Diener and Crandall (1978)[6], in order to assure the rights of the informants. Therefore, before each interview the motivation of the research was introduced and the consent for recording the interview was inquired. I have also ensured the right to use the information for academic purposes only and assured the anonymity of the respondents, in case they requested.

In regards to the limitations, several aspects related to the chosen research design and sampling size have to be mentioned. The first methodological limitation is related to the sampling size and the way the respondents were chosen. In accordance with the main aim of this research, only apparel designers and producers were included, excluding leather, home textile, shoes and accessories. This resulted in limited number of slow fashion organizations and affected the quantity of the conducted interviews. Secondly, collaboration refusals of some brands are an additional limitation. I am aware of the fact that due to purposive sampling, the gathered data might not be enough to draw strong generalizations, since the saturation effect was not reached (Bryman, 2012). However, considering the time, scope and resource constrains, I believe that the chosen sampling manner provides representative results to develop comprehensive knowledge about slow fashion principle implementation in design and production practices in Lithuania.

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[6]Referenced in Bryman (2012). The four principles: no harm to participants, no lack of informed consent, no invasion to privacy, no deception.

6. Findings and Analysis

To answer my RQ2, in this chapter I present and analyze how the slow fashion principles and their implied social and environmental practices are implemented by the Lithuanian slow fashion designers and producers. Every section presents the obtained results, keeping the order of the interview guide (Appendix I) and the logic of analytical framework, mirroring the principles of *Environment, Waste Strategies, Functionality, Localism, Authenticity, Exclusivity* and *Equity*.

The referencing to particular interviews in this section is made using the allotted codes, which are provided in the Appendix II. The summary of the findings obtained during the interviews is provided in the Appendix III. The results, obtained from the secondary sources are summarized and presented in the very end of the section. The full descriptions of the 8 interviewed slow fashion brands are presented in the Appendix IV.

6.1 Environment

Upon the principle of *environment* I was particularly looking into the processes of a) material selection and b) efficient use of resources, including materials, packaging and transportation.

6.1.1 Material selection

In general, the material selection is one of the very initial stages in any fashion collection creation, thus, the designers are bound to make their fabrics or yarns choices early when designing clothes (Niinimäki, 2015b). The importance of the material selection was as well emphasized by the majority of interviewed Lithuanian slow fashion designers, since it not only affects the environment, but also determines "the style, the quality of items and success of the whole business" (KO6).

Therefore, when I asked to describe based on what qualities designers select their materials, the keywords of 'high quality', 'expensive' and 'natural' were heard the most. The natural materials used were cotton[7] (YA1, SD2, TL3, BA4, AF5 and KO6), wool (TL3, KO6) or cashmere[8] (AF5) and flax (BA4). On the other hand, there was not a single designer or producer using hemp in production, even though it is one of the traditional local fibers, used for centuries in clothes manufacturing (Glinskienė et al., 2006). However, hemp materials are currently gaining momentum in the sustainable fashion production, since it renews quickly, is durable and easily adaptable (Niinimäki, 2015b).

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[7]With one brand using 100% recycled cotton, (KO6).
[8]The fiber obtained from the Kashmir goats (Capra Hircus Langier), living in the surroundings of the Gobi desert in South Asia. Source: (Purl English, 2017).

Apart from natural fabrics, the slow fashion designers also used synthetically extracted fibers, such as viscose[9] (SD2, TL3), neoprene[10] (AF5) or 'sports' materials (OM8). The reasons for choosing the synthetic fabrics were several. First, the synthetic fibers were preferred due to its composition and constant innovations, improving the durability of material (OM8). Second, the consumed natural resources were another reason to choose synthetic instead of natural fibers. As one designer puts it:

„It seems a bit funny to me, when people immediately reject fabrics from polyester, but willingly buy cotton and want it unconditionally. Yes, its natural composition is great, but what is the price? It is one of the most nature polluting materials, its production requires a lot of natural resources" (OM8).

In general, according to Niinimäki (2015b), to tell which fabrics is more nature-friendly is a hard task, since both natural and synthetic materials carries the environmental burden. Despite, some deductions could be made, if for example organic or ecologic certified fabrics are used (Niinimäki, 2015b). Yet, such practice appears to be uncommon with Lithuanian slow fashion designers. Only few of them stated using fabrics with certificates, or using some certified elements, such as labels[11] or yarns (YA1, KO6, BE7).

However, the majority stated putting very little attention to organic and ecological certified materials, due to several reasons. Firstly, the issue of limited supply of such materials in Lithuania was mentioned (BA4, AF5). As stated by (BA4) there is still limited amount of suppliers who provide certified materials. According to (SD2), currently there are only two Lithuanian suppliers that have some ecologically certified fabrics 'Mogoteksas' and 'Utenos Trikotazas', yet their fabrics are not suitable for the designer's items. Moreover, certain skepticism towards ecological and organic fabrics was noticed. Some designers expressed their doubt about the transparency and accuracy of the certification process, as most certificates only proof a small part of fiber cultivation or production (SD2, BE7).

Second of all, the financial aspect of the nature-friendly fabrics was highlighted. These materials, due to less harmful cultivation approach, cost more than regular natural or synthetic fabrics (Niinimäki,

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[9]Viscose is a semi-synthetic fiber made out of cellulose extracted from dissolving wood pulp of soy, bamboo and sugar canes. Viscose is commonly used in light industry for clothes and home décor essentials. New technologies made viscose extraction more nature-friendly; however, the environmental costs of this fiber production are still significant. Source: (Niinimäki, 2015b).

[10]Neoprene is a type of synthetic rubber fiber, produced via polymerization process of chloroprene. Neoprene is known for its resistance and durability and is widely used in producing surf costumes, protecting cases and, more recently, used in clothing production due to its functionality. This material heavily relies on oil extraction, contains toxins and could cause allergic reaction. Source: (Macro International, 2015).

[11]OEKO-TEX® certified labels are used by the up-cycled denim brand. OEKO-TEX standard is used to certify raw, semi-finished or finished materials or accessories used in the textile production. This standard limits the use of harmful chemicals, therefore, contributes to material safety. Source: (OECO-TEX®, n.d.)

2015b). Therefore, some designers simply cannot afford environmental-friendly materials, even though they wish to (SD2, AF5). Moreover, using ecologic or organic materials would increase the price of slow fashion items, which is already quite high (SD2). Lastly, I noticed that general designers' knowledge about the low-impact materials was limited. As most designers confirmed, their disuse of organic and ecological materials also depends on time assets, since looking for certified suppliers requires effort and persistence (TL3, AF5, KO6).

In sum, the nature-friendly material application and culture in the Lithuanian slow fashion production is low. Since mainly naturally grown materials are used, their cultivation leaves as heavy trace on the environment. The main issues are the absence of certified suppliers in Lithuania and price, impede the usage of low-impact materials.

6.1.2 Resource efficiency

In terms of efficient resource use, the designers were asked about materials, transport and packaging. The designers' views towards fabrics consumption coincided, as they all assured sparingly using the fabrics (yarns) in production. In order to reduce the consumption, a variety of material saving tactics was employed. Some were planning the clipping layouts with a special computer program (YA1, TL3) or calculating required material inputs and comparing (SD2). Others were applying minimalized clothes constructions (AF5) or using the fabrics at 'full length' and creating from square pieces, to reduce the material input (OM8). These material saving practices not only diminish impacts on nature, but also reduce the item production costs (TL3).

The slow fashion designers also demonstrated knowledge and attention towards nature-friendly packaging. In this case, recycled carton boxes and recycled paper bags were the most commonly used for item packaging (YA1, TL3, AF5, KO6). Besides, there were also several designers using reusable cloth bags, which were made out ot their textile waste (BE7, OM8). What is more, all of them claimed using the minimum amount of necessary packaging in all cases.

However, according to some designers slow fashion production appeared to be high in transport emissions (YA1, TL3, BE7, MO8). The underlying reason for such intensity rests upon the organizational specifics of slow fashion brands, as majority of them is outsourcing sewing or knitting lines. Therefore, even if they design, cut and compose in studios, they have to deliver semi-finished items to the sewing workshop (or individual tailor) and collect them, once ready. This is how the majority of slow fashion brands in Lithuanian operate. Despite that, all interviewees expressed their awareness and concern towards this matter. As one of them puts it:

"[…] of course it would be perfect to concentrate design and production under one roof, then we would save time and be more nature friendly" (OM8).

In sum, it is apparent that despite responsible material usage and minimized, nature-friendly packaging, Lithuanian slow fashion highly relies upon the input of fossil fuels, due to their organizational structure. This way, slow fashion production creates negative carbon emissions, contributing to climate change. Therefore, the resource efficiency practice is only partially fulfilled.

6.2 Waste Strategies

Textile waste generation and its mistreatment is one of most significant problems of the Lithuanian fashion sector (Kazakevičiūtė, Ramanauskienė, & Abraitienė, 2008). Therefore, the slow fashion designers were asked how they treat accumulated textile waste. Indeed, due to the employed fabric saving methods (section 6.1.2.) their leftover amount is way less significant if compared to massive industrial fashion production. However, some small waste amounts still exist and designers shared their approaches of its treatment.

First, the up-cycling technique was often applied (YA1, BA4, BE7, OM8). By using this method, the larger bits of fabric waste were turned into house décor elements such as carpets (BA4), slow fashion accessories (YA1), handbags (BA4), as well as used for packaging (BE7, OM8). As noted by one designer:

"If we have any [textile] waste we give it away to charity, for children to sew dolls. We tried making carpets and handbags from textile leftover pieces, but to be honest, we don't have that much of waste. We save our fabrics" (BA4).

On the contrary, the down-cycling technique was less common. It is been used by only one brand, collaborating with a furniture recycling company (YA1). They have their textile waste completely down-cycled and used for furniture accessories. Both up-cycling and down-cycling serve a dual purpose: not only allows reducing the accumulated textile waste amounts, but also generates profits. Lastly, the reusing technique was applied in the most creative ways. Instead of being thrown out, the textile waste was turned into decoration details, such as pockets, collars and cuffs in future styles (YA1, SD2, AF5).

Nevertheless, the issue of treating the smallest waste pieces was challenging for Lithuanian slow fashion designers and producers. On one hand, they often addressed the absence of convenient textile waste recycling system in Lithuania, forcing them to dispose the leftovers together with municipal waste (SD2, TL3, BE7). Indeed, the infrastructure for textile recycling in Lithuania is still

under development and there is currently only one company providing textile collection and recycling service for business units (Antanavičiūtė & Dobilaitė, 2015). On the other hand, I noticed that the problem of non-recycling was also related to the lack of information and designers' ignorance. There were few designers, who showed interest in textile waste recycling possibilities, but confirmed having trouble finding such service in Lithuania (AF5, BE7).

To sum up, the textile waste treatment strategies in Lithuanian slow fashion production shows great awareness and effective actions towards complete textile waste minimization. However, there is lack of recycling infrastructure followed by a great vacuum of information, limiting fully nature-friendly waste treatment.

6.3 Functionality

Improved garments' lifetime, according to Niinimäki (2015), is one of the most important environmental impact factors, from which the slow fashion principle of *functionality* is derived. Under this principle, I have asked the interviewed designers to share their insights about: a) the most important functional elements of their designed clothes and b) their garment lifetime extension practices.

6.3.1 Functional elements

Even though the respondent brands appeared to be very different in created styles, when talking about functional elements the majority of them agreed that material durability and quality are the most essential from them (SD2, BA4, AF5, BE7, OM8). These two, combined with the careful sewing (TL3, OM8) and construction techniques (TL3, AF5, KO6) leads to lasting style, which can be worn more than a season or two (TL3, BA4). The lasting style creation emphasized by one designer:

"It is the investment, but it will serve many years and you won't need to change it. It will be fashionable next season and the season after. White shirt only different collar, - it can be worn for eternity!" (AF5).

The second important functional aspect for Lithuanian slow fashion designers was comfort (YA1, TL3, BA4, KO6, BE7, OM8). Yet, they claimed that the investment into comfortable design and construction strengthens the emotional relation between the consumer and clothes, preventing the quickly discarding of the clothes (TL3, BE7, KO6). Moreover, the designers were creating multi-functional, transformable items, serving several functions: to provide warmth and be aesthetic (YA1, SD2, BA4, OM8). This way, designers created items in high versatile value, emphasized by slow fashion (Jung & Jin, 2014; Niinimäki, 2015b).

6.3.2 Garment lifetime extension

In terms of garment use and lifetime extension, the designers employed several approaches. Firstly, as confirmed by the majority, all care information on how to launder, tumble-dry or clean they provide in the garment labels (YA1, TL3, AF5, KO6, BE7, OM8). Furthermore, some designers also emphasized going beyond the conventional means of garment care instructions and using social media to provide information to customers (YA1, TL3, KO6). By posting on Facebook and Instagram or writing blogs the brands offered not only the care recommendations, but also used stories to educate the consumers on sustainable fashion practices (YA1, TL3, KO6). Moreover, as an additional information measure, the designers were emailing care reminders to their customers (TL3, AF5, BE7). However, few of them acknowledged that the best way to educate the customer is in person, after purchase in studio or during fashion fairs (SD2, AF5, BE7).

Secondly, all designers confirmed that they design slow fashion products with added repair service, which allows extending the garments' lifetime (YA1, SD2, TL3, BA4, KO6, BE7, OM8). This way, the designers encourage customers to care about the longevity of clothes (SD2, BA4, AF5). According to Niinimäki, (2015), future-oriented design with included services not only extends the garments' lifetime, but also teaches consumers to embrace nature-considerate behavior. All aspects considered, it could be said that all the designers' implemented practices coincides with the slow fashion principle of *functionality* and fulfills it well.

6.3.3 Supplier country

When the slow fashion designers were inquired to share their supplier country, two vivid trends appeared (Figure 2). The first half of respondents stated, that they highly prioritize Lithuanian suppliers (YA1, SD2, BA4, OM8). This is mainly due to affordable retail prices the trustworthiness of suppliers and saving the transport emissions. The second half of the answers was more diversified. For instance, several designers indicated having their fabrics sourced from Italy "due to high quality of materials" (TL3, BE7). While the two knitwear brands had their yarns sourced respectively from Norway, the Netherlands and United Kingdom (KO6, BE7). Their main motives were "sustainable, clean and small-scale production, as well as animal right and welfare considerations" (KO6, BE7).
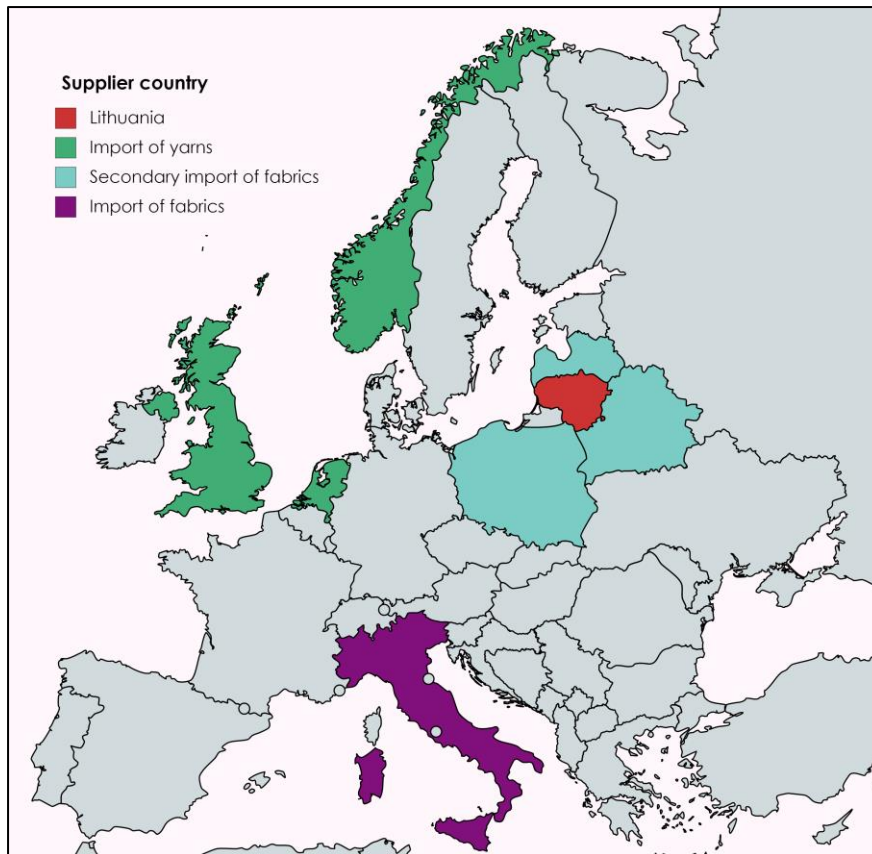
Figure 2. This map shows the supplier countries of the materials, used by the slow fashion designers in Lithuania. Visualized using: https://mapchart.net/europe.html.

The interviewed slow fashion designers also expressed some concerns and regrets about the Lithuanian fabric supply market. As some of them noted, locally made fabrics are limited, with only several fabrics originally manufactured in Lithuania (SD2, BE7). Therefore, according to (BE7), the majority of locally supplied fabrics, such as flax, are mostly retailed from the neighboring Poland, Latvia or Belarus factories. This could be explained by, for example, shortage of raw materials (Glinskienė et al., 2006) or insufficient fabric manufacturing quality in Lithuania, leading to 70% of material import rate (Jokubaitis, 2002). The aspect of quality and also desirability was confirmed by one designer, who said:

"For instance, local wool is very rough and Lithuanian manufacturers usually make only 100% wool. This result in sweaters no one desires to wear, also many people are simply allergic to sheep wool" (KO6).

The above mentioned reasons mostly determined that half of the slow fashion designers receive their fabrics from abroad. However, the other half claiming that they source their materials locally cannot be entirely sure that their materials originate from Lithuania. Consequently, the implementation of the slow fashion practice of local material sourcing is disrupted.

6.3.4 Production country

Unlike the suppliers', slow fashion production country corresponds more to the *localism* principle. The designers unanimously stated they could not imagine manufacturing someplace else than Lithuania. Simple communication, high quality of work by talented seamstresses, advanced infrastructure matched with reasonable pricing, motivates the designers to keep their production local (YA1, TL3, OM8). According to one of them:

"[..] maybe it would be cheaper option to outsource the manufacturing somewhere else, as many already do. But we want to have that good feeling, that we create and pay those wages in Lithuania and not somewhere else" (TL3).

In addition, the slow fashion designers claimed retaining their production away from big garment factories, making their items in local tailor workshops (YA1, BA4, AF5, BE7), small family-run businesses (TL3, AF5, KO6) or local communities (KO6). The latter, represents an entire business model of one brand, since the majority of their knitwear production is hand-made by a close community of stay-at-home mothers and unemployed women, living in central Lithuania. This knitters' community of six women work in a home environment, but have frequent communication and member gatherings, where they share the experience and knitting know-how (KO6). According to the designer, these community meetings not only keep the business, but build social relations between designers and knitters and within the community (KO6).

In general, the slow fashion designers seemed to be supportive and not only including local communities, but also involving individual tailors based in the periphery. Since the employment possibilities outside the big cities are limited (Lithuanian Department of Statistics, 2017), such collaboration contributes to the economic and social well-being of these people. This aspect is in line with slow fashion principle of *localism*, providing social gains from the local production line and involvement of local communities (Jung & Jin, 2014).

6.4 Authenticity

The main idea behind the principle of *authenticity* is the creation of high aesthetic value and unique story items by applying various hand-made, craftsmanship and local traditional techniques (Clark, 2008; Jung & Jin, 2014). Lithuanian slow fashion designers showed great commitment to these particular principles and applied various methods to highlight their exceptionality. The majority of designers indicated frequently applying diverse hand-made techniques. For instance, tailoring (SD2),

'good old' knitting (KO6), weaving (AF5), silkscreen printing[12] (TL3, BE7) or flocking[13] (BE7), - all contributing to the story of slow fashion items. Moreover, the designers used a great variety of traditional ethno motifs to strengthen the message of authenticity; such as archaic Baltic region symbols (BA4), colored weaving patterns (AF5), adapted old Lithuanian knitting patterns and ethno plaits (KO6). In few cases, the designers applied traditional ways of dyeing the materials, using the natural colors extracted from linden, juniper or metal nails (BA4) or 'dyeing in many colors' (OM8).

All these used techniques highly contribute to the slow fashion principle of *authenticity*. Not only it embraces the hand-made methods, but also enhances the cultural and social value of the local arts and its heritage (Clark, 2008; Jung & Jin, 2014).

6.5 Exclusivity

In order to understand the implementation of the *exclusivity* principle, I have asked the designers to describe their production features in terms of: a) speed, quantities and their usual change of collections and b) the acceptance of individual orders and the co-creation practice.

6.5.1 Speed, collections, quantities

In general, low speed of production is the most distinguishable feature of slow fashion and it was particularly well applied by the Lithuanian slow fashion designers (Fletcher, 2007). They all indicated that the production of their items takes a long time, due to multiple steps in manufacturing (YA1, SD2, TL3). Especially testing the new items is time consuming, since it includes material setting, adjusting, remake of construction and appearance, which result in constant item 'mutation' (SD3, KO6, OM8). Consequently, the slow fashion collection creation and production may take from 1 to 9 months[14], which is by far longer than any fast fashion cycle of two to four weeks (Leslie et al., 2014).

Prolonged production timeframes affect the fashion collection interchange and item quantities. Therefore, the majority of designers introduce joint-season collections – Autumn/Winter and Spring/Summer (SD3, BA4, AF5, BE7, OM8). This is different from, for example, the traditional four-season collections, or the above mentioned fast fashion model (Leslie et al., 2014). The usual size of a slow fashion collection consists of 10-20 models, which are ready-made (TL3, AF5) or

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[12]Silk-screening is a technique of printing predetermined patterns on fabric by pushing coloring matter through the pores of a stretched silk or similar material. Source: (Merriam-Webster, 2017).

[13]Flocking is a decorating technique obtained while applying short chopped velvety fiber on material with adhesive. The process uses electrostatic charges to adhere the small pieces on selected materials. Source: (Textile Glossary, 2017).

[14]Exact responses: from 1 to 2 months (OM8); from 3 to 6 months (AF5); 6 moths (BE7); up to 9 months for collection creation and production (SD2, TL3).

manufactured only upon order (YA1, SD2, BA4, OM8). In contrast, three designers claimed having permanent signature lines instead of collections, this way avoiding fashion seasonality (YA1, SD2, KO6). They tend to release only item supplements varied in colors or décor elements, from time to time, which allows keeping their production low in quantities (KO6).

In sum, it could be said, Lithuanian slow fashion fully implements the slow fashion practice of low speed, limited collections (two times per year) and small quantities. Therefore, it represents slow, small-scale fashion production, intrinsic to the *exclusivity* principle of slow fashion (Fletcher, 2007; Jung & Jin, 2014).

6.5.2 Individual orders and co-creation

Typical to slow fashion, the individual orders and the process of co-creation were seldom applied by Lithuanian slow fashion designers. Entirely custom-made orders were only taken by one designer (SD2), while other two were applying 'made to measure' technique to create more personalized items (AF5, OM8). The application of co-creation was as well scarce. Only few designers emphasized including their customers in the slow fashion clothes creation (SD2, AF5). As one of them puts it:

"I like co-creation it brings way more fun into work and also builds the relations between garment and customer. Of course, it is not profitable in others' [designers'] opinion, because you do not automate your processes and take customer needs into account" (AF5)*.*

Conversely, the rest designers had their own motives for not taking individual orders and co-creation. For example, some feared that it will prolong and complicate their current production (YA1, BE7). While the others pointed out that customers' introduction would affect their refined brand style and identity (KO6, BE7, OM8). To compensate, they emphasized offering different sizes, the choice of different color or accessories of "the already unique and limited pieces of slow fashion" (OM8).

6.6 Equity

The last principle of *equity* is directly related to the social well-being assurance and provision in the slow fashion production processes (Jung & Jin, 2014). Therefore, here I asked about: a) the fairness of payment and b) the work conditions of employees making the slow fashion items in Lithuania.

6.6.1 Fair pay

Due to its relative sensitivity, the question of fair pay and employee work conditions was inquired the last. There were few designers who did not answer this question (YA1, BA4, OM8), while the

other Lithuanian slow fashion designers willingly provided some insights on the matter. From the received answers two vivid trends appeared, mostly based on how the slow fashion production line is organized: directly or indirectly. The designers, who organized their production directly with the local community or individual tailors, have confirmed assuring the fair payment to the people employed (KO6, AF5). They also emphasized fair payment:

"We want our knitters to be treated fairly, so we keep the payment even more than average [salary in Lithuania]. This allows assuring their financial well-being and makes us feel good too, because we pay the fair salary" (KO6).

"With individual seamstresses I agree upon the price and, of course, I try to keep it fair. Anyways, it is our humanity, so we keep these prices normal" (AF5).

In contrast, the designers coordinating their production line indirectly i.e. using hired sewing services, they could not tell if the employees are being paid fair (TL3, AF5, BE7). Since the price of the order is usually agreed with the management beforehand, so the salaries are beyond designers' control. However, when asked to speculate if the garment workers' salaries are paid fairly, the designers thought it must be adequate for the job done (TL3), but still not sufficient enough:

"I think that in general the garment workers' situation in Lithuania is not good. The wages are insufficient and what I particularly find strange and sad is the decrease of sewing [textile] students. Therefore, we have a shortage of garment specialists. Still, they are not appreciated anyways." (BE7).

6.6.2   Work conditions

In terms of appropriate working hours and secure work conditions, the results obtained were inconclusive. From all the received answers, only one designer provided exactly in what conditions their slow fashion clothes were being made (KO6). According to this designer, their entire garment is being made in a pleasant home environment, "with dependent working day taking no more than 8 hours" (KO6).

The rest designers acknowledged that due to hired production service, they rarely see the actual working conditions in these workshops (TL3, AF5, BE7). As stated by respondent (TL3):

"Work conditions? I can only tell about the premises, which I see and know. So, in one workshop they [management] really saw that it is uncomfortable, as they had tight premises without any windows. Therefore, they put effort and rented new beautiful space in the fifth floor with a view to the river".

In addition, designers emphasized that working conditions in their hired small workshops are generally better, if compared to big garment factories (TL3, BE7). According to designer (BE7):

"I have seen many times in big garment factories, where they have 100 workers per floor! But in small workshops, with whom I work with, are essentially different: they usually have a common lunch table, where workers gather to eat and chat, or they also have rest zones in the yard. Everything looks friendlier".

The fair treatment of employees and contribution to their well-being is the most important social aspect of slow fashion, contributing to the concept sustainability (Clark, 2008; Jung & Jin, 2014; Langdown, 2014). Therefore, the slow fashion designers' and producers' effort towards fairness and safety assurance in manufacturing processes is highly desired. In the case of Lithuania, however, we can only assume that the social welfare of the employees is only partially assured, deciding upon the answers received. The prevailing trend of designers' ignorance and non-responses complicated the possible generalizations about the implementation of *equity* principle in Lithuanian slow fashion.

6.7 Findings from the secondary data sources

Table 2. Slow fashion brands in Lithuania. This table presents the Lithuanian slow fashion design and production brands, who participated in my research. It indicates their name, year of establishment, the main features of their designed items and the stage of production, in relation to the seven Slow Fashion principles used in this research. Source: Appendix IV.

Brand Name	Year of Establishment	Main features	Slow Fashion Principles
1. Yours Again	2016	• Up-cycled second hand denim • Transport reduction • Waste minimization • Local supply & production • Limited production	✓ Environment ✓ Waste strategies ✓ Localism ✓ Exclusivity
2. Si Design	2016	• Transforming clothes • Durability	✓ Functionality
3. Tauri Look	2016	• Natural materials (wool) • Classic silhouettes, High quality • Versatility, Timeless design • Locally produced • Source of materials – Italy	✓ Environment ✓ Functionality ✓ Localism
4. Baltai	2011	• Natural materials (wool, cotton, flax) • Timeless, durable design • Minimalist, classic, neutral • Baltic symbols, natural dies	✓ Environment ✓ Functionality ✓ Authenticity
5. Agne Fashion	2011	• Natural materials (wool, cotton, linen) • Classic, minimalist design	✓ Environment ✓ Functionality ✓ Localism

		• Contrasting colors • High quality, longevity • Locally produced • Collections 2 times p/year • Limited quantities • Made-to-measure service	✓ Exclusivity
6. The Knotty Ones	2014	• Moderate colors, classic, minimalistic design • Local community inclusion • Reviving knitting techniques • Hand-made knitwear • Fair pay, safe working conditions, work satisfaction • Source of materials – Norway, the Netherlands	✓ Functionality ✓ Localism ✓ Authenticity ✓ Equity
7. Beleberda	2015	• Natural materials • Waste minimization • High quality • Knitwear, unique items • Limited quantities	✓ Environment ✓ Waste strategies ✓ Functionality ✓ Authenticity ✓ Exclusivity
8. OHMY	2014	• Natural & innovative materials • Responsibility over waste • Timeless design, multi-functionality, comfort • Local production • Hand-made production • Limited items	✓ Environment ✓ Waste strategies ✓ Functionality ✓ Localism ✓ Authenticity ✓ Exclusivity

7. Discussions

In the following section, I will shortly discuss the main findings of this thesis, structured around my RQ2. In addition to this, I will discuss the linkages between the processes of Lithuanian slow fashion design and production and the global sustainability goals in terms of intergenerational, international and intersectional dimensions of fairness and justice (Jerneck et al., 2011). This will help me to reflect upon the sustainability of slow fashion and later address my RQ3.

7.1 The implementation of slow fashion principles in Lithuania

Findings of this thesis reveal apparent disparities between the theoretical slow fashion principles and their application in the slow fashion production in Lithuania. Result analysis suggests that some principles (or their practices) were applied very well, while others were omitted or only partially applied. Such disparities are determined by a variety of internal and external factors, presented in the later section.

7.1.1 The principles applied

First of all, findings revealed that the principles of *functionality* and *authenticity* were the most important to Lithuanian slow fashion designers and producers. Both of these slow fashion principles were applied not only to accentuate the originality of the brands items and their unique style, but also to represent the distinct identity of the Baltic region, its heritage, arts and culture (Clark, 2008; Leslie et al., 2014).

Secondly, principle of *waste strategies* was applied as well. These strategies were mostly applied due to financial reasons, since it allowed reducing the material input and subsequent production costs, as well generating additional benefits from up-cycling or reusing of waste products. Additionally, waste reduction and recycling strategies were implemented due to ecological reasons, therefore, preventing more textile waste ending up in Lithuanian landfills.

Thirdly, the principle of *localism* was taken on well by keeping the production local. The reasons for local production were mostly determined by affordability, well-developed infrastructure and qualified specialists, representing the general qualities of the Lithuanian textile sector (Glinskienė et al., 2006; Novikevičiūtė & Lasiauskas, 2015; Toliusienė & Bargelis, 2012). In general, local production is a very important factor, because it not only promotes local economies, but also contributes to more transparent production systems, by leveraging the intermediation between the producer and consumer (Langdown, 2014; Leslie et al., 2014).

Lastly, the principle of *exclusivity* was implemented by practices of infrequent fashion collection releases (1-2 times per year), limited amount of items (up to 10-20 items) and extended time for item production. This way, Lithuanian slow fashion is particularly in line with the slow fashion concept, since it represents slowing down of the production cycles with less materials and natural resources consumed (Fletcher, 2007). Consequently, the increased time spent on each garment allows investing into quality, rather than quantity, which is an intrinsic sustainability value of slow fashion (Clark, 2008; Fletcher, 2010; Jung & Jin, 2016a; Pookulangara & Shephard, 2013).

7.1.2 Omitted principles, and why?

Given these applied principles, there were several principles, which were omitted by the Lithuanian slow fashion designers and producers. In particular, they touched upon low-impact materials and equity. In relation to this, I have identified internal and external factors challenging the application of these slow fashion principles, presented in the table below.

Table 3. Omitted slow fashion practices. Source: author.

Practice/Principle	Internal Factor	External Factor
1. Low-impact materials	× Increased cost of items × Limited knowledge	× Limited selection × Price
2. Equity	× Outsourced production	

To start with low-impact materials, the slow fashion designers and producers were reluctant to the low environmental impact fabrics application, including organic or ecological materials. Such decision was mainly based on the limited selection of this type of materials in the Lithuanian and European market. Indeed, as pointed out by Shepard & Pookulangara (2013), obtaining sustainable materials is one of the main challenges of the slow fashion, since the availability of such materials is limited worldwide. What is more, sustainably cultivated materials are also more expensive than any conventionally made or synthetic materials (Niinimäki, 2015b).

The price aspect was particularly and issue for the Lithuanian slow fashion designers and producers. They expressed regret that low-impact materials would require additional financial input, which would translate into higher prices of items and is not an option. Besides, some designers also admitted having limited knowledge about low-impact materials and where to find them. Therefore, they are using natural and high quality materials, as it reflects their understanding of slow fashion. The latter, mirrors one aspect of the slow fashion critique noted by Cataldi et al., (2010b), saying

that most designers primarily concentrate on the design and style, omitting certain sustainability practices, which we observe in this case.

Furthermore, the principle of *equity,* which represents the fair treatment of employees in the production processes and is essential to the social sustainability aspect of slow fashion (Jung & Jin, 2014). However, only few designers confirmed paying fairly for the employed knitters and tailors and knew the work conditions. The rest of the designers did not respond or expressed their ignorance towards this matter. Probably, the main reason for it was their outsourced production to Lithuanian enterprises, e.g. sewing companies, which is, in general, a common practice in the slow fashion manufacturing (Leslie et al., 2014). The reasoning behind the outsourcing of production to local companies is twofold. On the one hand, it allows the sharing of the economic benefits of the slow fashion creation by involving small workshops, local communities and individual tailors (Clark, 2008; Langdown, 2014). On the other hand, it opens the door for ambiguity, since the designers cannot confirm if their clothes are being produced fairly, because of the indirect agreements. Looking from slow fashion perspective, this represents a major drawback for successful slow fashion implementation in Lithuania.

7.2 Slow fashion and sustainability goals

In general, there are many understandings and interpretations of sustainability (Faure, Svenfelt, Finnveden, & Hornborg, 2016; Jerneck et al., 2011; Kates et al., 2001). Yet, it is apparent that sustainability is a broader concept than environmentalism alone, as it also responds to social problems related to fairness, justice and equity (Spangenberg, 2013). Therefore, production, representing significant part of human activity today, must not only consider environmental aspects, but equally take social issues into account, if sustainability is desired (Veleva, Hart, Greiner, & Crumbley, 2001).

As shown before, the theoretical slow fashion principles touch upon environmental and social prerequisites of sustainability (Fletcher, 2010; Jung & Jin, 2016b; Pookulangara & Shephard, 2013). Nevertheless, my findings revealed that some design and production practices are preferred over others. Here, I want to discuss these aspects by linking it to the global sustainability goals and examining them based on the three dimensions of intergenerational, international and intersectional justice and fairness, as presented by Jerneck et al., (2011).
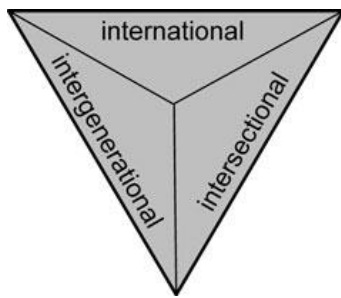
Figure 3. Three dimensions of justice and fairness. Source: (Jerneck et al., 2011, p. 75).

To start with, I have chosen the United Nations Sustainable Development Goals (SGDs) as a representation of "society formulated and negotiated social goals, aimed at one or multiple challenges", to which international governments have agreed on in 2015 (Faure et al., 2016; Jerneck et al., 2011, p. 72). The SDGs represent a major platform operationalizing the sustainable development[15], but broadening it by introducing "comprehensive, far-reaching and people-centered set of universal goals and targets" to address multiple sustainability challenges worldwide (UN, 2015d, p. 3). It represents a blueprint of actions, necessary to solving urgent environmental issues i.e. climate change, biodiversity loss, resource depletion and social issues, i.e. poverty, justice and equity, and make further progress.

As one of these commitments, the SDGs promotes responsible consumption and production (Goal 12), otherwise contributing to resource depletion and generating waste (UN, 2015c). The slow fashion production could be seen situated in this context of global commitments and sustainability aims, as it generally seeks for slowed-down production and reduced consumption (Fletcher, 2007; Jung & Jin, 2016a). Hence, looking through the lens of justice and fairness might help to evaluate its actual contribution and the sustainability of slow fashion.

7.2.1 Intergenerational justice

The dimension of intergenerational justice, which is based on the notion of equal environmental service provision for current and future generations and assure the well-being, is considered intrinsic to sustainability (Jerneck et al., 2011; Spangenberg, 2013). There are different perspectives to look at the issues of intergenerational justice, such as equity, energy policies or climate change, all related to sustainability challenges worldwide. Climate change, however, is considered one of the greatest challenges, threatening not only current, but also future generations (IPCC, 2014).

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[15]Sustainable Development here is understood as suggested by Brundtland in 1987: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Source: (UN, 1987).

Therefore, climate change calls for urgent mitigation measures, especially in the Western consumption of finite natural resources (Agyeman, Bullard, & Evans, 2003; Spangenberg, 2013).

In this light, slow fashion stands out with its promoted downscaled production, finite resource-saving approach, textile recycling and the reductionist attitude towards all types of waste (Fletcher, 2010). Lithuanian slow fashion production could be characterized mirroring these practices as well, since they produce limited items, use low-impact, recycled and up-cycled fabrics and sparsely use the materials. Moreover, keeping local production allows saving the transportation related fossil fuel input and avoid unnecessary CO_2 emissions, contributing to climate change.

Accumulated landfill waste is another intergenerational justice related issue, as it touches upon the ecologic base of our future world (Jerneck et al., 2011). This particular problem is addressed by the life-cycle thinking approach implemented in Lithuanian slow fashion manufacturing. By the provision of high quality durable clothes, offering of repair services and the education of their customers, by giving them advice on how to take care of the clothes, slow fashion designers challenge the current throw-away culture, and aim for reducing waste disposed at Lithuanian landfills. Moreover, the waste accumulated in production is addressed by applying various techniques to recycle, up-cycle or down-cycle leftovers, which would otherwise end up in the landfills, threatening the environment by releasing harmful chemicals by its decomposition (Niinimäki, 2015b).

In the light of an uncertain future, both resource and waste considerate production processes strengthen the notion of sustainability within the slow fashion manufacturing. Cleaner planet, regenerated resources and equal provision of natural services for the health and prosperity of our future generations are the results of these sustainable slow fashion production efforts (Jung & Jin, 2016b). These aspirations are furthermore in line with the SDGs, in particular Goal 13: 'Take urgent action to combat climate change and its impact', which argues for actions within companies to reduce their carbon footprint, is covered by the slow fashion approach (UN, 2015a). Furthermore, slow fashion is in line with Goal 12: 'Ensure sustainable consumption and production patterns' with its emphasis on sustainable production, life-cycle approach to products and additional efforts to reduce the Western overconsumption of textiles (UN, 2015c).

7.2.2 International justice

As pointed out by Jerneck et al., (2011), international justice touches upon the questions related but not limited to the "neo-liberal colonialism" and the unequal distribution of negative climate change effects between the Global South and Global North. Furthermore, it also calls for the revision of the

Western economic growth pathways, which are dependent on the exploitation of social and natural resources in the developing states and hindering their progress (Jerneck et al., 2011).

The slow fashion, however, considers these prevailing issues and argues that material resources should come within the production country, preventing the exploitation of other nations' resources (Clark, 2008; Jung & Jin, 2014; Langdown, 2014). This not only reduces the negative impact apparel production has on the Global South resources, but also generates profits for the local economies by buying raw materials from national producers. However, slow fashion also acknowledges that local material sourcing has its limitations, such as material availability or insufficient quality (Cataldi et al., 2010a; Pookulangara & Shephard, 2013). Consequently, transparent, fair-trade international agreements are promoted by the slow fashion movement to challenge the exploitive manner of prevailing capitalist system and contribute to the international justice dimension (Jung & Jin, 2014).

Due to limited local materials, the Lithuanian slow fashion production is bound to international trade (Jokubaitis, 2002). The origins of the materials used are solely in Europe (Figure 2), however, some examples from the secondary sourcing countries (Poland, Belarus, Latvia) suggest that social and environmental exploitation is not only the problem of the Global South, but is also present in the Global North. For example, in 2007, Belarus was threatened with a six-month trade sanctions on textile and wood export to the EU for non-compliance with core labor and workers' rights (European Commission, 2007; Kryvoi, 2007). The situation of Polish and Latvian textile production is considered better in terms of labor rights, nonetheless, their fabrics are in competition with cheap Asian production, which require readjustment to changing prices (Heymann, 2005). These realities represent issues of international justice and Lithuanian slow fashion production is indirectly related to them as well.

The disruptions of international justice related to slow fashion production pose challenges to the successful implementation of the SDGs. This includes, for instance, the Goal 12: 'Ensure sustainable consumption and production patterns', indicating the importance of local and sustainable production in order to reduce the resource consumption in the North, contributing to climate change (UN, 2015c). Another example for the relation between the slow fashion movement and the SDGs is the Goal 8: 'Promote inclusive and sustainable economic growth, employment and decent work for all', which aims for non-explorative and safe working conditions with fair wage for all people, in both developing and developed countries (UN, 2016).

7.2.3 Intersectional justice

The intersectional justice calls for the recognition of diversified world, including the existence of multi-dimensional identities combined of race, age, sex, class, ethnicity, gender or religion, which could lead to inequalities and marginalization (Jerneck et al., 2011). Nowadays, the mainstream fashion production depends highly on poor, low-skilled, young women from the developing states (WIEGO, 2017). These identities combined with exploitive conditions, unfair wages and limited social guarantees leads to the marginalization and the suppressed agency for these women, negatively affecting their quality of life.

Slow fashion takes a different stance in order to leverage these apparent intersectional issues, to assure equal well-being for the people involved in production. It promotes the designers' collaboration with local communities, the inclusion of low and high skill women at all ages, and women in the periphery where employment possibilities are lower than the cities (Langdown, 2014). Lithuanian slow fashion, in this case, follows this line by supporting work-at-home tailors, gathering knitters' community of stay-at-home mothers and women at older age, providing with safe and fairly paid employment. The provision of collaborative and cooperative work opportunities, according to Clark (2008), impart agency for local women, regardless of their age or class, with especial benefits for the ones living in the rural areas.

These practices fall in line with the SDGs Goal 5: 'Achieve gender equality and empower all women and girls'. This goal recognizes the deprivation of the rights of women around the world and aims for increased gender equality in terms of access to education, labor market, equal payment, healthcare, which are essential for poverty reduction and increased well-being of women (UN, 2015b).

8. Conclusions

The unsustainability of the current fashion system calls for urgent actions towards the creation of alternative path for fashion production and consumption. The movement of slow fashion is debated as one of the most prominent alternatives, as it promotes socially and environmentally responsible practices in the processes of fashion creation. Therefore, the main aim of this thesis was to find out how the production of slow fashion facilitates sustainability and what are its principles and practices guiding this process.

The academic literature review, providing the basis for this master thesis, revealed that the concept of slow fashion is somewhat contested. Though the concept is very comprehensive, incorporating the social and environmental sustainability practices in production and consumption, it is also criticized for the high item prices. I have identified seven underlying principles guiding the production of slow fashion. These principles address the environment, waste strategies, functionality, localism, authenticity, exclusivity and equity overarching principles, contributing to slow fashion production. These principles were consolidated into a new analytical framework, which helped me to understand, analyze and assess the slow fashion implementation in the selected case of Lithuania.

This analysis of the Lithuanian slow fashion production was based on eight qualitative interviews with selected slow fashion designers and producers. Against the backdrop of the seven-principle framework, the findings revealed apparent disparities between the theoretical and the actual application of the slow fashion principles. Especially the practices of low-impact material usage, local material sourcing and equitable production deviated from the theoretical slow fashion principles, which pose major drawbacks to successful slow fashion implementation.

Lastly, I discussed to what extent Lithuanian slow fashion meets the global sustainability goals in terms of the three dimensions of justice and fairness. My findings, on the one hand, show that linkages between slow fashion and the SDGs can be drawn, especially in terms of intergenerational and intersectional justice and fairness. Slow fashion is seen contributing to climate change mitigation actions by reducing resource input and limited waste. In addition, slow fashion is also in line with the SDGs promoting gender equality. On the other hand, space for improvement towards the dimension of international justice and its related SDGs implementation is apparent. This is mainly due to the foreign sourcing of materials which further mirrors the flawed implementation of the *localism* and *equity* principles of slow fashion.

All things considered, slow fashion could be seen sustainable, yet only to some extent. The ideological impact of slow fashion is definitely valuable to sustainability. However, the real world impact is limited by certain barriers, such as high prices or fair sourcing and production, slow fashion has to overcome to become truly sustainable.

8.1 Further research

In terms of future research, the generalizability of my findings could benefit from a cross-cultural investigation or a comparison study, analyzing the slow fashion production in diverse (or similar) cultural, demographic and economic contexts.

Furthermore, the findings revealed complex challenges regarding material supply chains towards fairness and transparency in international trade agreements, affecting the international justice negatively, which are related to slow fashion as well. Therefore, future research investigating the resource and material flows possibly from the world system perspective, could provide additional insights about the actual fairness and transparency of materials sourcing, slow fashion could possibly benefit from.

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Appendices

Appendix I. The Interview Guide

For Slow Fashion designers and producers in Lithuania

Brand name:

Contact person:

Opening questions:
1. Could you please tell me how did you become involved into slow fashion?
2. In your web-site you state, that design and production of your clothes follows the slow fashion principles. Could you please tell me, how would you describe slow fashion?
3. When you design and produce your clothes, what is the most important to you? Which aspects do you consider the most?

Comments:

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A. Environment principle:
1. Could you please tell me how do you choose the materials/fabrics for your designed items?
2. What characteristics of materials, fabrics, fibers and threads are the most important to you?
3. Do you use certified, green, organic fabrics or threads? *Is it important for you?*
4. Do you take into consideration the amount of materials, fabrics you use? *Is that important for you?*
5. Which of the production stage uses the most of the natural resources (water, electricity, packaging, transport)? *What type? Do you have any strategies to reduce them?*
6. What type of packaging do you use to pack your clothes?

Comments:

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B. Waste Strategies:
1. Let's talk about the generated textile waste in your clothes production. In your opinion, which process in the production stage generates the majority of textile waste?
2. Could you please tell me, how do you treat the generated textile waste? *Do you have a textile waste reduction strategy, what it is?*

Comments:

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C. Functionality principle:

1. What are the most important *functional* elements of your designed/produced items?
2. Please tell me, how do you inform your customers on how they can wear and enjoy the garment longer?
3. What should you customers do, in case they need to repair or adjust the item they bought from you? *Do you provide repair service?*

Comments:

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D. Localism principle:

1. What would be the most important criteria for you, when choosing the suppliers of materials and fabrics? *Is it important that materials and fabrics would be sourced from the geographically close country?*
2. Where do you usually source the materials, fabrics, yarns from?
3. Where is the main part of your production stage located at? *What is the most important for you when choosing a production country?*

Comments:

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E. Authenticity principle:

1. Please tell me, do you employ any craftsmanship or traditional techniques in the making of your items? *What kind of techniques it is and why do you use them?*
2. Thinking about these techniques, do you think one has to study or practice hard, or be very highly skilled in order to perform these techniques? *Does it require a lot of time, dedication, skills and a lot of effort to learn?*

Comments:

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F. Exclusivity principle:

1. How long does it usually take to produce one item of yours (including ideas, design, material selection and order, production until the finished item)?
2. How often do you change the fashion collections?
3. How many items usually make up your collection?
4. Do you take individual orders?
5. Do you provide the service of co-creation, where customers can take the decisions upon the garment creation and production? *If yes – How and why you do it? If no – Do you plan to do this in future?*

Comments:

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G. Equity principle:
1. If you could share with me, what is the working atmosphere in your design studio? *What is the most important for you in creating good working atmosphere?*
2. What is your knowledge towards the fair pay in you production line?
3. What are the working conditions in your production line?

Comments:
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Closing questions:

1. In your opinion, is sustainability important in the nowadays fashion industry?
2. Do you think the sustainability in fashion is possible in Lithuania?
3. How do you see the development of slow fashion in Lithuania?
4. What motivates your enterprise the most to follow slow fashion principles?

Appendix II. The Interview Plan

#	Brand	Contact information	Interview code	Interview date	Interview duration	Comments
1.	Yours again	Email: info@yours-again.com	YA1	March 31st	53 min.	Skype conversation
2.	Si design	Email: noriunoriuinfo@gmail.com	SD2	April 2nd	58 min.	Skype conversation
3.	Tauri Look	Email: info@taurilook.com Phone: +370 61404092.	TL3	April 3rd	54 min.	Personal meeting
4.	Baltai	Email: info@studijalt.eu Šv. Stepono g. 34-6, LT-01312, Vilnius	BA4	April 6th	15 min.	Phone conversation
5.	Agne Fashion	Email: info@agnefashion.com Phone: +370 679 01090. Dominikonų g. 5, LT-01131, Vilnius	AF5	April 7th	32 min.	Personal meeting
6.	The Knotty Ones	Email: info@theknottyones.com	KO6	April 9th	36 min.	Phone conversation
7.	Beleberda	Email: hello@beleberda.com Phone: +370 62342220 Šv. Stepono 4-5, Vilnius	BE7	April 12th	45 min.	Skype conversation
8.	OHMY	Email: info@ohmy.lt Phone: +37068651984 Lukšio g. 7, Vilnius	OM8	April 13th	-	Written answers received by email.
9.	Muku	Email: info@madebymuku.com Phone: +370 67430900 T. Ševčenkos str. 16i-315 Vilnius, LT-03111				Brand was provided with questions, but no response was received after.
10.	Ode to Sunday	Email: info@odetosunday.com				Brand was provided with questions, but denied collaboration.
11.	Rūkė	Email: info@ruke.lt, Phone: +370-650-87507 Užtvankos g. 36, Ramučiai, LT-54464 Kauno r.				Brand was provided with questions, but no response was received after.
12.	LeKeckas	Email: info@lekeckas.com Phone: +370 687 00939 Karaliaus Mindaugo pr. 64-42, Kaunas, LT-44351.				Did not respond to initial email.

Appendix III. Slow fashion principles and practices implementation in Lithuania

Principle	Practices	Implementation	Reasons
1. Environment	a) Low impact materials	✓ Natural fabrics × Organic/ecologic certified fabrics	✓ Quality × Limited selection/sourcing × Price
	b) Efficient use of resources	✓ Material-saving techniques ✓ Low-impact packaging × Transportation	✓ Textile Waste ✓ Reduced costs × Outsourced production × Distribution
2. Waste strategies	a) Reduce	✓ Generally lower textile waste amount	✓ Small production ✓ Material-saving techniques
	b) Reuse	✓ Up-cycling/down-cycling	✓ Reduce textile waste ✓ Additional profits
	c) Recycle	× Small piece recycling	× Insufficient infrastructure × Insufficient Information × Lack of designers' knowledge
3. Functionality	a) High quality b) Durability c) Timeless design d) Versatility	✓ High quality materials ✓ Quality manufacturing ✓ Lasting design ✓ Comfort + Care information and awareness + Free repair service	✓ Increased garment lifetime ✓ Reduced throw-away ✓ Increased emotional attachment
4. Localism	a) Local sourcing of materials	× Mostly sourced from abroad	× Limited locally produced materials × Insufficient material quality
	b) Local production	✓ Completely local production	✓ Low cost ✓ Good infrastructure ✓ Qualified specialists
	c) Local community involvement	✓ Individual tailors, local community	✓ Job creation in the regions

Principle	Practices	Implementation	Reasons
5. Authenticity	a) Craftsmanship b) Hand-made c) Traditional Techniques	✓ Tailoring ✓ Knitting ✓ Weaving ✓ Silkscreen printing ✓ Flocking	✓ All these applied techniques contribute to uniqueness of the items, promotes cultural heritage, Lithuanian traditional arts.
6. Exclusivity	a) Small scale	✓ 2 times per year ✓ 10-20 items per collection ✓ Signature lines	✓ Limited number of items produced ✓ Slowing down the production cycles
	b) Low speed	✓ Collection creation may take from 1 to 9 months	✓ Involves many stages and testing models
	c) Individual order and Co-creation	× Implemented by few designers	× May complicate the process × Could change brand style
7. Equity	a) Fair pay	? Inconclusive data: × Did not know ✓ Fair paid	? Missing responses × Indirect hiring ✓ Direct agreement
	b) Secure work conditions	? Inconclusive data: ✓ Good, based on assumptions	? Missing responses ✓ In small workshops the conditions are better than in big garment factories

Appendix IV. Slow fashion brands in Lithuania

1. Yours again

It is a newly established (in 2016) sustainable fashion brand, registered in Denmark by a Lithuanian designer. Despite that, the main part of clothes production is located in a small sewing workshop in Lithuania. Currently, there are three people working in "Yours Again": the designer, the seamstress and an assistant. This brand became known for applying the up-cycling technique[16], which is still a novelty in Lithuania. They specialize in up-cycling second-hand denim fabric, in order to create brand new styles. All second-hand denim is sourced from selected responsibly Lithuanian suppliers and hand-picked by the designer herself. "Yours Again" follows the 3R principle of Reuse-Rework-Rethink, which describes their main sustainability commitments (Yours Again, 2017). They are using the denim fabric, which is no longer wanted, remaking them into functional fashion pieces and raising awareness on the importance of sustainable choices in fashion production and consumption (Fonseca, 2016). The brand also claims putting additional effort in textile waste minimization and the reduction of transportation (Gutautaitė, 2017).

2. Si Design

In 2016, a young fashion engineer created a slow fashion collection named 'CLO'gene' as her final Master Thesis project. The main idea of the collection was to create transforming, multi-functional women clothes, which could be worn multiple ways and styles (KTU, 2016). Furthermore, the clothes are transformed by folding, stapling with additional clasps, in order to extend garment customization possibilities. According to the designer, such a design approach helps to satisfy the need of changing customer desires and extends the lifetime of each item (KTU, 2016). Even though, this slow fashion collection was created as an university project, the designer continues to design and provides individual tailoring services in their workshop under the brand name "Si Design".

3. Tauri Look

The brand was established in 2016. Their main audience is office women, therefore, the brand represents classic silhouettes, suitable for the office environment. On their website, they claim to follow the slow fashion principles, yet they aim to create versatile clothes, which could be worn many seasons (Tauri Look, 2016). Furthermore, the brand place exceptional attention to the quality

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[16]Up-cycling is a technique and a process for creating new, better quality and environmental value products by using or transforming the by-products, second hand materials, waste or products which are no longer used. Source: (Upcycle Magazine, 2009).

and naturalness of the fabrics and materials they use for their clothes. All fabrics and materials are sourced only from Italian suppliers, yet the entire garment is produced in two sewing workshops in Kaunas (Lithuania).

4. Baltai

Slow fashion men and women apparel brand "Baltai" was established in 2011 by two well-known fashion designers. The main idea behind this brand is the representation of the old Lithuanian beliefs and symbols, searching for Lithuanian identity in the urbanized world. Intrinsic to the brand are the old Baltic region runes, which can be seen on every item. The clothes are produced in a medium size workshop in Lithuania. Only natural materials of wool, cotton and flax are used in garment production. As pointed out by the designers, "Baltai" clothes are environmentally conscious and respectfully designed, therefore, functional, noiseless and durable (Baltai, n.d.). All their clothes retains the minimalistic style, classic and neutral colors, which are easily adjustable to individual style (Pušinskaitė, 2015). In 2015 collection, the designers experimented with various fabric coloring techniques and used only naturally extracted colors to die the fabrics they used.

5. Agnė Fashion

The main feature of "Agne Fashion" clothes is a traditional technique and hand-braided fabric, used for every item (Agne Fashion, n.d.). The clothes are created following classic, minimal design and contrasting colors. Used materials, according to them, depends on the season, yet always natural – wool, cotton and linen are preferred (Agne Fashion, n.d.). The brand follows slow fashion, therefore, invests in quality, longevity and style of every item. Two times a year, "Agne Fashion" releases a new collection of items made in small quantities. Apart of that, the designer constantly works with individual orders, offering 'made-to-measure'[17] service to customers. All the clothes are designed and sewed in a small workshop in Vilnius.

6. The Knotty Ones

In 2014, the sustainable contemporary knitwear brand 'The Knotty Ones" was founded by three friends. Inspired by the traditional Indonesian crafts, the founders decided to revive neglected Lithuanian knitting techniques and create unique, hand-made fashion items (Wilson-Powell, 2017). Their style is Nordic oriented, therefore, the majority of clothes are knitted using thick threads using

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[17]Made-to-measure (MTM) is a tailoring technique, used to construct apparel suited for individual fit. This technique is more personalized than ready-made clothes, which are standardized. MTM technique is always more expensive than ready-made items, since it requires more attention, care and hand work. Source: (Crompton, 2016).

moderate colors, featuring classic, minimalistic, oversized but functional design (The Knotty Ones, 2017). The materials, according to the founders, are selected with great care and are only natural - wool, angora, cashmere or cotton. Yet the most important feature of this brand is the promotion of ethical, transparent and sustainable business (Wilson-Powell, 2017). First of all, the brand stands for social responsibility practices towards their craftswomen, and assures fair payment, safe working environment and work satisfaction (The Knotty Ones, 2017). Currently, the brand employs six local women from the regions and smaller towns, mostly stay-at-home mothers. Second of all, the brand emphasizes the transparency in their supply chains, therefore they retain personal relations with their certified suppliers from Norway and the Netherlands (Wilson-Powell, 2017).

7. Beleberda

This fashion brand was established a few years ago, by a costume design graduate of Vilnius Art Academy. The cornerstone of their style is knitted garment, which are made with mechanical knitting machine, without using electricity. The uniqueness of each piece is extracted using 3-8 different yarns that are put into one by hand, creating different color gradients (Not Just A Label, n.d.). The brand follows the philosophy of conceptual positivism, which reflects their ideas of fashion creation and responsibility (Beleberda, n.d.). Creating limited, unitary items manufactured using fabric and yarn remnants and, therefore, leaving minimized textile waste, represents the idea of responsible fashion production. "Beleberda" aims to create high quality, exceptional energy garment, which is made responsibly, by using natural materials and employing innovative décor elements, such as digital prints on fabric (Klaipėda, 2017).

8. OHMY

"OHMY" is a clothing brand, founded in 2014, when the designer graduated from Vilnius Academy of Arts. Intrinsic to their items is the idea of individuality, therefore, their collections are manufactured hand-made in limited quantities (OHMY, 2017). The designer emphasizes timeless design, the multi-functionality and comfort of each piece, minimal constructions and oversized silhouettes, created by both natural and innovative materials (Remeika, 2017). The brand also expresses strong responsibility over the generated textile waste, which is fulfilled by fabric-saving and unconventional designs (Remeika, 2017). All their produced items are manufactured in Vilnius.