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Sustainable textile management and business practices among small scale fashion brands in Indonesia

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Abstract.

The current fashion and textile industry is one of the largest contributors to climate change and environmental degradation. The industry uses toxic dyes and chemicals to cultivate, manufacturing and processing stages. It also creates emissions that end up as pollution, and waste that ends up as landfill, which damage the ecosystem and has detrimental impact on human health. The textile and fashion industry is also driven by a fast fashion consumption pattern that encourages companies to produce low quality products to a low price. Fashion trends make consumers buy more and throw away more clothes. Therefore, there is a need for the industry to change towards being more sustainable. To understand how it can be done, this research will focus on small fashion businesses or brands in Indonesia. Data collected from semi-structured interviews was analyzed with the help of Hallaerts' framework for a business model approaching de-growth and answered the research questions "What processes have small fashion businesses and brands in Indonesia adapted to have a more sustainable production and business model?". The research showed that natural dye and innovative design were the main sustainable textile management practices adapted by the brands, together with sustainable and ethical business practices.

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1. Introduction

The fashion and textile industry is assumed to be one of the largest industrial contributors to pollution and it is characterized by high consumption of energy, water and usage of chemical, microfiber shedding and textile waste (Filho et al, 2022). The textile manufacturing and consumption has nearly doubled over the past few decades and the trend shows that the demand for fast fashion is only going to increase in the future (Centobelli et al, 2022). The current fashion business practices focus on producing clothes that are “*made for rapid trend turnovers through obsolescence and early disposal, allowing for a quick profit and generating a large amount of waste*” (Centobelli et al, 2022:1) and are characterized by “*speed, novelty, economy, and disposable trends in constant change*” (Centobelli et al, 2022:3). These consumption patterns and consumer mentality results in the fashion and textile industry accounting for between 8-10% of the world's carbon emissions, which is more emissions than both aviation and shipping industries produce together and contribute to about 20% of industrial wastewater pollution (ibid.). According to Filho et al (2022:2), “The production and manufacturing of natural and synthetic textiles continue to be the most ecologically damaging aspects of the industry” with the main major environmental impacts that are observed in manufacturing and producing are water use, carbon footprint, chemical use and textile waste (Niinimäki et al, 2020). Niinimäki et al (2020) states that the industry has a complex supply chain, and it is characterized by a production process is divided across different companies and the different parts of it is spread out globally. And while the value chain is global, there is still a distribution of where parts of the process is located. The raw material extraction, such as fibre, yarn, and fabric production, and manufacturing, and textile processing is mainly located in countries with lower labour costs in South and Southeast Asia (ibid). The low price of fast fashion apparel is often a result of bad worker rights, low wages, child labour, bad safety regulations and bad waste management during the production (Kozłowski et al, 2012). Lower labour right standards and regulations regarding social rights and environmental issues all have a detrimental impact on the people that are low on the supply chain and the environment surrounding them (ibid). There is an uneven distribution of the impact of these issues on countries and their population and they tend to suffer more from the environmental and social impacts of the fashion industry (Niinimäki et al, 2020).

However, the fashion industry has been exposed and criticized for the negative environmental and socio-economic impact it has, and a shift towards sustainable trends in manufacturing and

consumption have been on the rise (Geneva Environment Network, 2022) The importance of sustainable manufacturing and production processes as well as sustainable business models have been more and more prevalent in discussion regarding the fashion industry (ibid). The fashion industry is dominated by small and medium sized businesses (SMEs) and they are one of the key players in moving towards a more circularity and slow fashion (Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, 2019). The UN Environment programme (2020) explain that:

“The aim of circularity is to shift the “take- make-dispose” linear value chain into a circular system, where materials are not lost after use but remain in the economy, circulating, if possible, at the highest possible value”

- (UN Environment programme, 2020:13)

Among the world’s biggest textile producing countries, Indonesia is ranked sixth, which is the highest ranking among the Southeast Asian countries (Indonesia Investments, 2021). The textile and garment industry is an important part of the Indonesian economy, and employs almost a fifth of the manufacturing sector, and a majority of these are working for a small or medium enterprise (SME) (TPSA, 2018) SMEs are also a big part of the Indonesian economy, and there are about 62 millions of companies and brands running this type of business model (Tirta and Sarli, 2021). According to the Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, (2019) SMEs have big potential in moving “towards more sustainable and resource-efficient” businesses that will advance the sustainability practices in the textile industry.

The different environmental impacts are something that brands that work with fashion are starting to take into account, however there are different ways to approach these issues. Smaller brands might have different ideas of what sustainable practices they want to incorporate and different ways to approach it. The aim of this thesis is to present types of sustainable practices have been implemented by the small, sustainable Indonesian businesses and brands as well as the reasoning behind choosing sustainability as the businesses approach. This thesis will also include challenges and opportunities on the market for these businesses. This thesis will therefore be focusing on Indonesia businesses or brands located in small and medium size enterprises (SME) that work with sustainable fashion.

The two research questions that this thesis will aim to answer are:

- What processes have small fashion businesses and brands in Indonesia adapted to have a more sustainable production and business model?

To answer these questions, an overview of the impact the fashion industry has across its value chain to identify which areas the fashion industry impacts the environment negatively will be presented. This will help understanding the different sustainable practices that are implemented in material management as well as other aspects of sustainable fashion practices that are adapted by different companies and brands. To understand the context of this thesis, Indonesia's role in the textile value chain and what trends exist in the fashion industry will be discussed.

2. Literature review

2.1 The negative impacts of the fashion industry and the sustainable solutions

The current business strategy in fashion aims to get quick profit by creating and feeding into fast fashion trends, creating the so-called fast fashion industry (Centobelli et al, 2022:1). The current consumption and production patterns related to fashion derive from a consumerist system in society that is fueled by the need for new, cheap items of clothing (ibid.). Niinimäki et al (2020:189) explain that the fast fashion business model is based on “offering consumers frequent novelty in the form of low-priced, trend-led products” which creates a consumption pattern that encourages fast delivery, producing new items to keep up with the trends, and a fast and cheap textile production to keep the price of the garments low. Due to the globalized nature of the textile value chain, it has impacts across all different sectors: environmental, socio-economic, and political (UN Environment programme, 2020) and the below paragraphs will summarize some of the main hotspots of the textile value chain.

It is hard to assess all aspects of the environmental impacts that the fashion industry has as it is spread out across the globe, the processes are interconnected and intertwined with other sectors such as businesses and policymakers. As the value chain of textile goes through a lot of processing and transportation, from raw material to finished product (UN Environment programme, 202). However some of the main major impacts that are observed in manufacturing and producing are water use, carbon footprint, chemical use, and textile waste (Niinimäki et al, 2020). The textile and fashion industry requires several steps and the impact on the environment can be observed at all these steps, and from raw material to finished product, the value chain of textile goes through a lot of processing and transportation (ibid). According to Filho et al, (2022)

one of the reasons the textile industry and production is so complex is because the value chain includes a lot of stakeholders, such as “*growers and processors of raw fibres, yarns and textiles, weavers, knitters, dyers and finishers, product manufacturers and distributors.*” (Filho et al, (2022:1). Textiles are used for different products, and the biggest part is taken up by the end-use of textile products are used for apparel, such as clothes, accessories, undergarments, and footwear, accounts for 60% of the global fibre demand (UN Environment programme, 2020). The rest is equally divided between industry/technical products, such as medical supplies, construction, packaging, transportation, that reflects 20% of the global fibre demand, and another 20% represents household items, such as kitchen and other household items (ibid). There needs to be structural changes to move to a more sustainable and circular textile value chain, and changes need to be made at all stages to make a fundamental impact (UN Environment programme, 2020). Taking this into account, the UN Environment programme, (2020) presents several actions that can be taken to move to a more sustainable textile value chain: action in fibre production, actions in yarn and fabric production, actions in textile production and actions for the use phase. However, the authors do emphasize that single actions are not enough for change to happen, but they are all important steps that need to be taken.

In a very simplified and linear manner, the textile and fibre value chain can be divided into five stages: fibre production (raw material production, material processing and fiber preparation), yarn and fabric production (spinning, weaving), textile production (dyeing, bleaching and assembly), consumption, which includes distribution and use, and end of life which could either end up being landfill or textile waste, or collected and reused (partly or fully) (UN Environment programme, 2020:13). During the whole life cycle of fibre and textile the input of resource and material creates an environmental impact during the various steps of the processes. From the from water and chemical usage during production of the fibre, yarn and textile to the CO₂ emissions during production, manufacturing, distribution, and consumption of textile products (Niinimäki et al, 2020:191). The UN Environment programme (2020:11) summarizes it as “*the value chain covers all stages in a product’s life, from supply of raw materials through to disposal after use, and encompasses the activities linked to value creation such as business models, investments and regulation.*”). When it comes to natural fibers, there is need to change farming practices that have a negative environmental and social impact, such as cotton cultivation that uses high levels of toxic substances and the industry is shown to have bad labour conditions. Production of synthetic fibers has been presented as a sustainable solution, as it can be created out of waste, such as plastic or textile waste. It is also important to make synthetic

fibers more durable and long lasting and promoting recycling of these fibers. Development of sustainable synthetic fibers and business practices around them, as well as improving the production and the surrounding practices of natural fiber cultivation is a way to make fibers more sustainable (UN Environment programme, 2020). When it comes to actions in yarn and fabric production, this stage does not have as high of an environmental impact compared to the other stages, most of it is from energy use. However, labour conditions and poor health standards are prevalent at this stage as well, and sustainability at this stage focuses a lot on improving transparency and traceability at this stage of the value chain, and across all other stages as well. Actions in textile production, such as the bleaching, dyeing, and finishing processes has detrimental impacts on the environment, human health, biodiversity, and ecosystem quality. The reason for that being usage of fossil fuel, and usage of toxic chemicals that end up as pollution.

The fashion industry contributes to water scarcity, as well as water pollution with its 215 trillion liters per year usage. (UN Environment programme, 2020) The processes with the highest water consumption include is raw material and fiber production, such as cotton farming, which is the main (or largest) contributor to the high amount of water usage, followed by yarn production. The textile and fiber industry usage of water during the chemically process of bleaching, dying and laundering of textile does not only consume high amount of water, it also pollutes the water system. Textile production requires about 0,58 kg of various chemicals per 1 kg of textile and many of the chemicals used have been identified to have negative impact on health and environment, and some of them cannot be removed by wastewater treatment systems. The chemicals found in textile dye is known for containing heavy metals, for example lead or mercury, which can accumulate in wildlife such as fish. Textile dye is also known for containing heavy metals, for example lead or mercury, and these accumulate in for example fishes and are not broken down (bioaccumulation) (ibid.). Release of microfibers into the water systems is also one big by-product of textile manufacturing, which studies have shown are observed in almost all water sources, from tap water to the ice in the Arctic (ibid.). Access to clean water for human and the ecosystem, which differs a lot between countries, geographical regions, and access to freshwater. However, water scarcity and water pollution because of the textile industry only makes both of those aspects worse (ibid.).

According to the UN Environment programme, (2020) life cycle assessment (LCA) of the textile and fibre production showed that the stage where the climate impact across the global

apparel value chain is the highest during textile production, and specifically the bleaching/dyeing and finishing process (ibid:22). The sustainable initiatives that address this step in the process focus on reducing or eliminating toxic chemicals, lowering the amount of water used during the process, and finding new options such as chemical free dyeing, or technological innovations that recover chemicals from wastewater. This stage of the process also has high social risks, such as bad labour laws and exploitation. The actions that need to be taken at use phase to advance to a more sustainable textile value chain aim to improve the care and durability of the textiles and using less energy and resources doing so.

Another hotspot identified by the UN Environment programme, (2020) is related to land usage, mainly in the fiber production stage., such as cotton cultivation uses 2,5% of the worlds arable land. Another natural fibre that uses a lot of land is wool, where land use can also be connected to the impact of land use of the meat industry, as wool is a by-product of many grazing animals. Other fibres, such as viscose for example, do not have as big of an impact on land use compared to the above-mentioned fibres. However, in the case of viscose, there is an impact on deforestation as viscose is made from fibers found in wood pulp. The poor management of chemical waste and the emissions that are produced, have a detrimental impact on the ecosystem quality and human health (ibid.).

UN Environment programme (2020) identified textile waste to be another large issue within the textile and fibre industry. Textile waste happens during production where pieces that cannot be used are thrown away, ending up as landfill. An aspect of textile waste is the End-of-life stages of textile, which is characterized by high overturn and value loss, which is when products are not used as they intended to be and are discarded of even if they are still usable. Sometimes textiles and garment are discharged without ever being sold, furthering the waste of fabric in usable conditions. There is currently a lack of recycling or repurposing in the current state of the textile value chain, even if fabric recycling has shown to reduce the impact on the environment. However, this is assuming that the textile is in good condition to be recycled, and when toxic chemical is used in the production it is more difficult to find safe recycling practices (ibid.). Actions at the end of life mainly address landfill and material value loss, where action can be taken by re-using and repairing/repurposing textiles to prolong the life of textiles. This requires brands and companies to adapt these sustainable options by extending produces responsibility to cover this stage as well and educating the consumers on these practices. Technological advancements in the field of recycling needs to be expanded on as well (ibid.).

However, while some of the above-mentioned actions are aimed to a specific stage in the textile value chain process, the UN Environment programme state that there are actions that are:

“relevant across all textile manufacturing stages, and include disseminating knowledge about sustainable alternatives, cleaner production, resource efficiency and renewable energy, and building the skills and capacity needed to implement sustainable changes.”

- (UN Environment programme, 2020:53).

The UN Environment programme, (2020) also highlight the negative socio-economic impacts of the textile industry as a sever issue. The raw material extraction and manufacturing of textiles is mostly located in developing countries in the global south, specifically Asia. While the textile manufacturing and assembly stages in the textile value chain is a big contributor to employment in these countries, the industry is also characterized by poor working conditions such as low wages and long working hours, unsafe working conditions such as unsafe exposure to chemical hazards as well as abusive practices such as sexual harassment and child labour (ibid.). Producing low-cost garments has also shown to create social risks, as it creates incentive to lower the cost of production and labour as much as possible (Niinimäki et al, 2020).

These are some of the concrete actions that should be taken for the textile value chain to become more sustainable, and it is a combination of innovation and technical advancements, consumer education and spreading of knowledge and information, as well as structural changes in society regarding consumption patterns (Centobelli et al, 2022). Circularity and slow fashion have been business models adapted by companies and brands that want to address the negative impact of the fast fashion industry across the value chain (ibid). The underlying idea behind this model is that the current fashion industry is detrimental towards the environment since resources are finite (ibid). Continuing in this way is not sustainable, and circular and slow fashion promotes more focus on creating textile and fashion items that are more durable and have longer life. The model also promotes a focus on end-of-life stage textile management where instead of throwing it out, textiles should be repaired, reused, or redistributed (ibid). This business model aims to minimize waste and keep materials in use and create circulation consumption and manufacturing patters (ibid). Circular slow fashion also promotes business practices that use sustainable, natural, and recycled materials, that also emit less pollution and chemical waste (ibid).

2.2 Stakeholders for transition towards sustainable fashion

The above paragraphs give an overview of some concrete actions that should be taken to make the fashion value chain more sustainable, and it also points out some stakeholders and actors who are responsible for implementing the actions or who they target. Niinimäki et al. (2020) explain that the current fashion industry and market is based on an incentive to increase sales and production, fast and cheap manufacturing, short product life due to low product quality. This leads to unsustainable consumption patterns, high material turnover, wasteful production, and high pollution (ibid.). Since a comprehensive structural change is crucial, the involvement of all stakeholders and actors on all levels is necessary.

UN Environment programme (2020) map out some of the stakeholders where change and impact can be made to move to a more sustainable system. Policymakers need to be involved in creating and implementing legislations and regulations, creating incentives and tools to go to a more circular business and consumption model, and creating policies for “extended producer responsibility” (UN Environment programme, 2020:196). The textile industry needs to focus on waste management and pollution control, for example through improvement in technology, managing the production quota, and have a transparent and traceable supply chain. (ibid). Retailers should improve or change their business models to focus more on slow fashion and set prices that include the environmental and social impact that a product has. Consumers should aim to be more careful with their garments and textile products and engage in conscious and slow consumption (ibid.). Centobelli et al (2022:4) highlight that “slow fashion encourages different and innovative business models, small local firms, artisanal and vintage productions, recycling, reuse, second-hand, and waste reduction”. Having big and small businesses and brands adapt the slow fashion business model and encouraging consumers to adapt slow fashion consumption patterns is crucial is crucial to lower the environmental and socio-economic impact the current fashion industry has (ibid.). According to UN Environment programme (2020) the role of the private sector, such as brands and companies, in the textile value chain is important when it comes to implementing changes in production practices or business models to be more sustainable and circular.

2.3 Case: Fashion industry in Indonesia

Indonesia is ranked as one of the top ten worlds exporters of textile production (TPSA, 2018) and the apparel manufacturing is an important sector for the Indonesian economy. According

to data from the Indonesian Ministry of Industry, the industry accounted for 5,5% of the country's totally export (AHK, 2022) and 60 % of the Indonesian apparel industry is textiles, such as fabric and fibers such as yarn (TPSA, 2018). The top five countries Indonesia exports to are US, Japan, Germany, South Korea, and the U.K in order of largest importer to lowest (TPSA, 2018). On the international market, Indonesia has been expanding to the near-by Asian market, and the country has both a large domestic market and high domestic demand. (ibid). According to The Canada–Indonesia Trade and Private Sector Assistance (2018:18), TPSA for short, ” this high domestic demand presents a second avenue for Indonesia to grow its apparel industry (...).” The research conducted by Asia-Pacific Economic Cooperation (2016) state that the role of micro, small and medium size enterprises (MSME) in the fashion industry is very crucial and play in important role for the economy of Indonesia. SMEs employ about 97% of the workers compared to big enterprises that employ 0.01%. The textile industry in Indonesia employs about 19% of all the workers in the manufacturing sector, and a majority of these are working SME sector (ibid). While SMEs generally have lower productivity than in big enterprises, SMEs in the textile and apparel industry have shown a steady growth (ibid). According to Asia-Pacific Economic Cooperation (2016:68) this can be accredited to a:

” ... positive trend emerged as a result of the textile & apparel sector SMEs is dominated by products that have a high market demand such as batik cloth, batik clothes and other garments steady demand for its products in the domestic market.”

- Pacific Economic Cooperation (2016:68)

However, the focus of the Indonesian textile industry in research has mainly been on international export, there is little research done on the domestic textile market in Indonesia, especially focusing on clothing and fashion (Hassler, 2006). Due to the lack of research focus on Indonesia's textile market, the country has a strong domestic demand and understanding what the trends in the fashion industry is on the domestic market is important to understand what actions SMEs in the country take to adapt to this demand. According to Hasslers research in 2006, there was an increase in western style clothing with the rising influence of western cultural norms in the country, and less people living in the urban areas are wearing traditional clothing (ibid). Traditional clothing, such as batik, went from being worn more frequently to clothing you wear on special occasions or during traditional holidays or events (ibid). However, according to Ratuannisa et al (2020) state that since batik was recognized as a World Intangible Heritage by UNSECO in 2009, batik has become more popular. Batik has been “recognized as

a cultural richness, national identity and as a national industrial wealth” (Gatut and Aryanto, 2010:168) and is a big part of the creative industry in Indonesia and among SMEs (ibid). The role of local craftsmen and artisans in the fashion industry in Indonesia, especially when it comes to batik, are crucial as their “involvement includes perceptions and participation in adding to the batik designs variety as traditional textiles” (Nurchayanti et al, 2021:45). There is a cultural value to the traditional clothing, and the designs can include social and environmental conditions by including aspects or patterns (ibid). However, according to SwitchAsia (n/d) SMEs that produce or work with batik can “operate with excessive use of water, wax, chemical dyes and bleaching agents that are harmful to the workers and the environment” (SwitchAsia, n/d). Therefore, as with all textile production, there is a need for the traditional textile industry in Indonesia to focus on sustainable alternatives in production processes and conscious consumer behavior (ibid). Ardhia and Mayangsari (2020) argue that there has been an increase in local brands in the SME sector, and a large number of those are located in the fashion industry. The interest towards local brands among consumers in Indonesia has also been rising, and there has been an increase in interest among urban consuming class towards more local brands (ibid). Ardhia and Mayangsari (2020) research concludes that the reason for Indonesian consumers to choose a local brand is and the biggest influence was the emotional value, followed by clothing interest and quality. Emotional value reflects the emotional connection to garments by using it to express identity for example, clothing interest that reflects the and attitude towards fashion and the individual’s consumer practices, and quality which reflects the consumers evaluation of the garments quality as a whole (ibid). Many local brands within the fashion industry have also been focusing on sustainability and innovation, aiming to become brands that are part of and promote slow fashion and conscious consumption (Amandari and Wirengjurit, 2019). The rising interest in a more environmentally friendly business practices among smaller businesses in the fashion industry, whether it is current brands wanting to change their current business practices or emerging new brands that have sustainability as a core (ibid). There is also other incentives created by for example Industry Ministry in Indonesia, that want for and young people to engage in the creative aspects of the fashion industry as well as sustainable fashion, and therefore created initiatives such as Indonesia Fashion and Craft Awards (IFCA) competition (Mecca Yumna, 2021).

The challenges that Indonesia faces when it comes to their textile industry can be attributed to three main point. While the industry is thriving on the international market, approximately 80% of the technology used the apparel industry, such as weaving, garment, or finishing-industry

technology, is outdated by modern standards and would need major updating to get the technology on par with the rest of the industry. While the garment industry in Indonesia is the source of employment for over 4,3 million people, the labour standards, and wages for majority of these people low, and the industry is health standards, lack of pay leave, and there are low or no social security and benefits (Izzati, 2021). Gender inequality in Indonesian is also an issue that needs to be addressed within the textile industry, as women take up a larger share of the labour market (AIPEG et al 2017). Labour has always played an important role for women's right movements and women empowerment in entrepreneurship is of great importance for sustainable development. However, most of these female entrepreneurs are located on a local market and in the informal economy sector (ILO, 2019) which is also the case for Indonesia. In Indonesia, women in business are mostly found in micro and medium size enterprises (MSE) and are in trade and services, managing/owning e.g., small shops, food stalls and beauty salons. In rural areas, women in businesses are mostly operating in traditional markets. In industry women in Indonesia are mainly found in small-sized handicraft, food and beverages, and clothing industries (Tambunan, 2017). Involvement of women in rural development by the means of entrepreneurship can bring about many positive outcomes that influence sustainable development.

The literature overview has explained the complex system and the current discussion topics in the field of sustainable fashion and textile management, and highlighted the aspects where actions is needed to have more sustainable practices regarding material management, In the case of Indonesia, SMEs are the major player in the fashion industry, especially when it comes to traditional clothing such as batik, however there is al There is also an interest among consumers in Indonesia to choose smaller fashion brands in Indonesia. The above discussion therefore raises several interesting areas to research. This thesis will therefore focus on understanding what smaller brands and businesses in Indonesia do to have sustainable material practices.

3. Theoretical framework

To help understand the relationship between humans and nature, Hopwood et al (2005) map out the different theoretical approaches that address sustainable development and the theoretical standpoints these depart from. They are divided into three categories: theories that want to sustain the status quo, theories that promote reform within the system and theories that argue

for transformation of the system (ibid). Hopwood et al (2005) defines the different categories as follows:

“... that it can be achieved within the present structures –status quo; that fundamental reform is necessary but without a full rupture with the existing arrangements – reform; and that as the roots of the problems are the very economic and power structures of society a radical transformation is needed – transformation”

-Hopwood et al (2005:42)

Hopwood et al (2005) argue that all three categories see a need for change in the society for sustainable development to happen, they all address different aspects with debating outlooks within the three categories. However, to create an overview, the main argument of status-quo supporters is that while change is needed, the current situation is not critical for society or environment. The issues at hand can be addressed with few changes and growth, economic growth and new technology is the way forward. The supporters of theoretical frameworks in the reform category are critical of the current system and see the need for a change in society. However, they also don't see that an ecological or social collapse will happen, and they don't see a need for fundamental change is necessary. Supporters of theoretical framework in the transformation category see “mounting problems in the environment and/or society as rooted in fundamental features of society today and how humans interrelate and relate with the environment.” (Hopwood et al (2005:45). A fundamental structural transformation on how people/society and the environment interact. The core issue is the economic and power structures that are in society, and therefore there needs to be change that put environment, socio-economic or both at the centre for society and environment to not collapse (ibid). Hopwood et al (2005) state that status quo frameworks are not a viable option for sustainable development. However, the authors argue transformation is essential, but hard to achieve, and reform is the more viable option currently (ibid). This thesis will however depart from a theoretical framework that has transformation at the core for sustainable development to be plausible.

3.1 Sustainable de-growth: framework for a de-growth business model

Martínez-Alier et al, (2009) present the concept of sustainable de-growth where a de-growth society is focusing on quality instead of quantity, cooperation instead of competition and where human and social justice is promoted over economic gain. The de-growth theoretical framework

criticizes the current pro-growth ideologies, such as capitalism, socialism, and social-liberalism, and argue that “growth is not the solution but a part of the problem” (Martínez-Alier et al, (2009:1732). A common critique, and arguably misconception, of de-growth is that it focuses on lowering the GDP (Kallis, 2010) or negative growth (Martínez-Alier et al, (2009). Martínez-Alier et al, (2009) argue that equating development and sustainable development in terms of growth of for example economy or GDP is fundamentally wrong. Kallis (2010) defines sustainable de-growth as “ecological–economic perspective as a socially sustainable and equitable reduction (and eventually stabilization) of society's throughput” Kallis (2010:874). Sustainable de-growth argues that sustainable development cannot happen if economic growth is the driving force behind development (ibid). doing that will exhaust earth’s resources and non-renewable energy and put pressure and unrealistic expectations on technological innovations as a solution to problems (ibid). While decline in GDP will be a natural outcome of sustainable de-growth, it is not the aim of sustainable de-growth. The vision of de-growth can instead be seen as a “socially sustainable process” (Kallis, 2010:875) with a focus on “degrowth of material production and consumption” (ibid).

Hallaert (2022) approaches the textile industry and from a de-growth perspective and presents a “framework for a business model approaching degrowth”. Hallaert (2022) argues that while circular economy within the textile industry is a good approach to lowering the environmental impacts by better resource management, increase efficiency of the supply chain, and lower the demand for new materials, it is still a model that “does not prevent greater use of resources if the total consumption continues to increase.” (Hallaert (2022:14). The author presents a framework that will help analyze business approaching de-growth, which is categorized into three parts: structure, production, and strategy (ibid). Organizational structure is characterized by alternative ownership model (for example cooperatives), democratic decision-making and not-for-profit institutional structure. Characteristics related to production include circular practices, decrease in productivity, preference to renewable sources, and reduction of resource and energy use, as well as production and consumption. Characteristics that define organization strategy are collaboration and knowledge sharing, community embeddedness and empowerment, localization (for example keeping sourcing and production local), and keeping business small scale, for example an SME (ibid.). Hallaerts’ (2022:26-27) framework for a business model approaching de-growth “serves as an indication of the actions that are considered important for a company to create a business model in line with a degrowth society.”. Therefore, it is a suitable framework to answer the research question stated above.

The framework for a business model approaching de-growth, that is based in the ideas of de-growth, will serve as guidance in the analysis and discussion of the collected data. The data analysis will adapt Hallaert's (2022) application of the framework.

4. Method for data collection and analysis

4.1 Method for data collection

According to Salmons (2016), these following aspects of a study must interrelate: epistemology, theory, methodology and method. This thesis departs from an interpretivist epistemological standpoint, which focuses on the understanding and interpretations of events, ideas, or concepts on an individual level. It allows for the research to explore different ways that a concept is understood (Salmons, 2016). Qualitative methodologies are compatible with interpretivist epistemological standpoint, and interviewing has been identified as a fitting method of data collecting for this research.

For this thesis the collected datatype is qualitative and the method for data collection used for this research was semi-structured interviews. The reason for choosing to do qualitative research is that this thesis aims to understand the way different people understand and implement sustainability and sustainable practices. According to Bryman (2012:469), interviewing is probably the most used method for qualitative data collection. Qualitative interviewing aims to highlight the thought pattern and views of the interviewee. Semi-structured interviews give space for the interviewee to interpret the questions and talk about what they regard as important, which is encouraged in qualitative interviewing. By using a flexibility in the interview guides allows the interviewees frames of issues and events to be in focus. As semi-structured interviewing is a flexible method it gives space for interviewees to express their perspectives, ideas, and reflections. There are different ways to conduct qualitative interviews, and this thesis adapts the semi-structured interviewing way of conducting interviews. For semi-structured interviews, an interview guide is used Which has been attached in the appendix 1 of this thesis. While an interview guide or schedule is used when conducting qualitative interviews, the interviewer is allowed to deviate from the questions, change the wording of the questions and ask follow-up questions or change the order of the questions. These points do not impact the validity or reliability of the data collected, contrary to quantitative interviewing. Bryman (2012:470) states that qualitative interviewing allows the interviewee to “ramble” and deviate

from the topic and discuss something that the researcher might not have asked about directly. The questions were primarily formulated to aid this process, as well as according to this thesis' aim, which is to understand types of sustainable practices the businesses implement, the reasons for why the businesses wanted to be/become sustainable and the challenges and opportunities on the market for these businesses.

The sampling of the interviewees was done by purposive sampling (Bryman, 2012). Purposive sampling was done by finding participants/cases in a strategic way so that they are of relevance to the study (ibid). This study adapted a generic purposive sampling, where criteria for sampling were identified, and the type of participants/cases were also predetermined. The criteria for the sampling were that it should be an organization/business/brand that is working with fashion in a sustainable way and labeling themselves as sustainable and be in Indonesia. Other criteria was that they should be mainly targeting the domestic market, by focusing on traditional style patterns or clothing.

A document that included a description and the aim of the thesis, the way the interview would be conducted and that it will be recorded, and the interview guide (appendix 1) was sent out to all interviewees beforehand. Due to the spatial distance (the interviewer was in Sweden and all the interviewees were in Indonesia) the interviews were all conducted online via the videocall system Zoom. This method was chosen due to time efficiency, conducting interviews online would allow for more interviews to be conducted, and the evaluation that conducting interviews online would not impact the outcome of the data. Salmons (2016) argues that one of the disadvantages of using videoconference for data collections is that there are non-verbal clues that will be more difficult to pick up through video or adjusting to a difficult interaction when discussion (ibid.). However, this study does not intentionally ask sensitive questions and therefore this issue was not seen as having a big impact on the study. This study does not focus on analyzing non-verbal clues, and while they are important for a qualitative study, as they were not the focal aspect of this study. Salmons (2016) discusses the use of videoconference as a data-collection tool and highlights that it allows for a "more natural communication style" compared to other online data collection tools and using video allows for "some level of kinesic communication, such as facial expressions and gestures, although eye contact may be more difficult to attain." (Salmons, 2016:47). Weighing the pros and cons of using online videoconference tool such as zoom for data-collection, it was arguably the best fit for this study.

The audio of the interview was recorded and transcribed, with the consent of the interviewees (see detailed consent form in appendix 1). According to Bryman (2012) recording and transcribing is a fundamental part of qualitative interviewing for multiple reasons. It strengthens the validity and transparency of the data, allows a thorough examination of everything that has been said, and does not leave any information up to memory. Bryman (2012:470) also highlights that “qualitative interviewing tends to be flexible, responding to the direction in which interviewees take the interview and perhaps adjusting the emphases in the research as a result of significant issues that emerge in the course of interviews” (Bryman, 2012:470). This leaves space for the interviewee to develop their thoughts, go outside of the provided topics and add ideas and thoughts later in the interview if they have more to add on a question asked earlier (ibid.). Therefore, qualitative research with semi-structured interviews as a data collection method was deemed a suitable method collection when trying to understand interpretations and knowledge among the businesses/organizations/brands on an issue of interest, i.e., sustainability and sustainable fashion (Bryman, 2012:471).

4.2 Ethics, reflexivity, and limitations

When it comes to data collection, the important ethical aspects to consider are how the informants are treated and how the information they provide is treated (Vetenskapsrådet, 2017). Before the informants participate in the study, it is important to explain the aim and purpose of the research, what the data will be used for, how the personal data (such as names and recordings) will be processed and presented in the research (ibid). in the case of this study, the data was recorded, and therefore it was crucial to inform the participants of how, where, and how long the data will be stored, in coherence with the personal data Act (ibid). It is also important to inform the participants of their rights, such as withdrawal from the study during, or after the interview has been conducted and that participation is voluntary, and that they agree to the terms of the data collection and participation in the study (ibid). Bryman (2012) also argues that there is a risk of the interviewees being uncomfortable with being recorded. Therefore, to address all the above issues, all interviewees were informed in advance of the fact that the interview would be recorded and were also asked before the interview started if they were okay with being recorded. They were also informed of the fact that they can ask to have the recording removed and withdraw their participation in the study without providing any reason. All participants agreed to the names of the brands/businesses to be published in this thesis. However, the names of the interviewees will not be published, and the referencing in the

discussion will be to the name of the brand/company. The topic covered in the interviews were also not highly sensitive, which one can argue also lessened the discomfort of being recorded and the risk of the interviewees withdrawing from the study.

Reflexivity is a fundamental part of social research (Bryman, 2012), and a part of that is to be aware of your position as a researcher in time and space, as well as in relation to the subject that is being studied and participants of the research (ibid.). People attribute meaning to environment, concepts, and experiences, and while these aspects might be the focal point of a research, it is important to remember that as a researcher, you do the same (ibid.). Braun (2015) highlights that as a researcher within social sciences, you need to reflect on the fact that you will engage in “interpreting interpretations” (Braun, 2015:459). This is especially crucial in the case of this thesis, as the act of coding is by default an act of interpreting interpretations. While coding, I as a researcher will have to be acknowledging and re-evaluating my values, pre-conceptions, and knowledge context. By being transparent about my methods and following a structure during the interviews, it will ensure transparency and cross-case comparability, (Bryman, 2012).

As the focus area is Indonesian, and Bahasa Indonesian is the spoken language in the country, this creates a limitation for my data-collection, as I was only able to conduct interviews in English. This limits the data; however, it is not a point that is critical for the outcome of this thesis. The other limitation of this thesis is the amount of data. A larger data set could help give a broader perspective.

5. Data analysis and discussion

5.1 General overview of the data

The criteria for the sampling were that it should be a small or medium sized organization/business/brand that is working with fashion in a sustainable way and labelling themselves as sustainable and be in Indonesia. They also had to have a way for me to contact them, through social media or an email address. For this data collection I reached out to about 27 companies and brands that fit these criteria their company email or by social media. Out of 27 companies and brands, five brands responded and agreed to be interviewed: KAIND,

KokaIND, Ing Madyokusuman, IMAJI Studio, Khaya Batik. The interviews were conducted with one representative from each brand online on Zoom.

KAIND is a brand that does hand-woven, handwritten, and stamped batik that are made into apparels, home decor and ready to wear items. The company consists of five strategic staff located in Jakarta, 25 artisans who are in villages, and around 250 farmers (KAIND, 2022). KokaIND is a brand that creates Indonesian ethnic fabric and traditional clothes and uses zero-waste pattern cutting to cut their clothes. They sell clothes all around Indonesia, Singapore, Malaysia. The brand has seven employees, four that work in production, one that works in accounting and two that works in administration and social media (KokaIND, 2022). Ing Madyokusuman, that is a brand based in Purworejo, Central Java that is run by a mother and a daughter, and the brand has four employees. The brand partners up with tailors. The brand makes, fabrics and ready to wear fashion, bags and accessories and home decor items (Ing Madyokusuman, 2022) IMAJI Studio is a Jakarta based, natural dye, fabric and apparel brand that sources material from Java/Bali. The office in Jakarta consists of seven people working with fashion design, brand developing, marketing and social media. The office in Jakarta work along craftsmen, farmers, and artisans in Bali (Imaji Studio, 2022). Khaya Batik family is a family-owned business that consists of two sisters and one freelance dressmaker. The brand focuses on creating sustainable clothes made from sustainable material and cut by zero-waste cutting techniques (Khaya Batik, 2022). All the brands focused on some aspects of Indonesian traditional clothing. Either the brand created the batik style or batik-inspired patterns, or they used fabric that had has batik or batik-inspired patterns.

With the help of Hallaerts framework for a business model approaching de-growth, the discussion below will aim to answer the research question:

- What processes have small fashion businesses and brands in Indonesia adapted to have a more sustainable production and business model?

5.2 Hallaerts framework for a business model approaching de-growth

Hallaerts' (2022:26-27) framework for a business model approaching de-growth will help analyse business approaching sustainability with a de-growth perspective. The three categorized the framework was divided into - structure, production, and strategy-will help guide the discussion (ibid). Hallaert (2022) also explains that the framework is not a point system, or

that a business is approaching de-growth more than another based on how many of the categories it crosses off. The fulfilment of one can lead to other characteristics being achieved or addressed. The framework is serving as an indicator for what aspects of a business model are important to include in order to align with the ideas of de-growth (ibid).

When it comes to structure points of discussion, characteristics related to organizations structure that Hallaert (2022) brings up in the framework can be divided into three groups: alternative ownership model, democratic decision-making, and not-for-profit institutional structure. The alternative ownership model involves being in a cooperative, which none of the above brands fit under. democratic decision-making model focuses on how the democratic decision-making aspect of the business will help the business practices and management. The not-for-profit institutional structure involves not having profit as the main target, but it is just the means to an end, and the business is “expected to be mission driven with a socio-ecological goal.” (Hallaert, 2022:25). The goods and services that are sold can create revenue, however, it is the mission that is driving the business (ibid). As argued above in the theoretical chapter, de-growth does not necessarily mean negative growth, or in the case of a business, negative profit. However, in the terms of this framework and placing a business in category being non-profit, “the problem is less profit in itself than it is the *profit motive*” (emphasis in original) (Parrique, 2020:542). Arguably, all the interviewed brands have a non-profit motive for their business structure. The goal for all the brands is to create fashion that does not have a negative impact on the environment, and none of the businesses stated that they had an aim to gain profit from their business. The motivation for the brands were all centered around sustainability, and how to lessen the impact their business practices on the environment.

IMAJI studios aim for their business is to “to reduce the waste and then create more mindful products” (IMAJI Studio, 2022) as well as “understanding of how human and nature can co-exist not only ethically but also in harmony” (IMAJI Studio, n/d). For Khaya Batik (2022) sustainability “has always been the heart of our brand” and it is “just what we have to do - to follow our passion about sustainability”. For Ing Madyokusuman (2022), the aim to be a sustainable brand comes from the idea that “by using eco-friendly materials, locally sourced materials and empowering the communities, we thought we can build a sustainable community”. For KokaIND (2022) the aim of the brand is to be as sustainable as they can be, so while “it is not like really 100 percent sustainable, so I call it ethical fashion.”. For KAIND, the main objective is to be a sustainable brand that “produce high quality clothing and

accessories with the emphasis on handcrafted work that aims to support the local economy while also preserving the culture” (KAIND, 2022). Remake, which is an organization working on addressing the climate impact of fashion as well as socio-economic impacts of the fashion industry, released a Fashion Accountability Report in 2021 (Remake, 2021). In that report, they scored companies on “product output and total environmental impact “(Remake, 2021), based on different criteria. The report showed, that overall, SMEs score four times higher than bigger companies (ibid). On top of that, SMEs are often more transparent in their sustainability efforts and have a more resilient business practices and models (ibid). While it is not possible to draw a general conclusion regarding all businesses in Indonesia, for the data collected one could argue that being a smaller brand is a reason for the environmental aim to be so clear as well as being the driving factor for the work that all the companies do.

The frameworks characteristics related to production choices are circular practices, decrease in productivity, preferences for renewable sources, and reduction of resources, energy use, production, and consumption (Hallaert, 2022). Incorporating circular practices is a fundamental part of the de-growth business model (ibid). The circular business model includes “reuse, rental and repair, take-back services, and second-hand shopping” (Centobelli et al, 2022:4) and “use of sustainable, natural, and recycled raw materials.” as well as other practices such as lowering chemical use and innovative solutions to issues in the garment creating process (Centobelli et al, 2022:4). All brands that were interviewed adapted all these characteristics. Decrease in productivity entails avoiding of the productivity mindset and not focusing on increasing the volume of production (Hallaert, 2022). This point was discussed above, under structure.

When it comes to the other three points (choosing are circular practices preferences for renewable sources, and reduction of resources, energy use, production, and consumption) the main themes that emerged in the interviews were the use of natural textiles and dyes, designs that were made to lower the amount of textile waste produced in the cutting and the aim to create garments that were durable and long lasting. Three of the brands natural textiles and dyes (KAIND, IMAJI Studio, Ing Madoyokusuman), and two of the brands focus more on creating and cutting fabric by zero cut pattern designs (Khaya Batik, KokaIND). As mentioned above, the bleaching/dyeing and finishing process of the textile process, and toxins and chemicals released during this process have a detrimental impact on the environment (UN Environment programme, 2020) Using natural dyes is one way to address this, and in Indonesia, there are 41 dyeing plants that are used in the textile industry in the country (K Elshahida et al 2019). The

main colors that are used are indigo/blue, yellow, red, orange, green, black, and brown (ibid). The colors can be extracted from nature for example from agriculture, forestry in the form of bark, leaves and roots, flowers, and food such and liquids such pressed berry, shells, etc. (ibid). The sustainability of using natural dyes can be divided into economic, social, and environmental aspects. Natural dyes are cheaper to cultivate as it does not require high level technology to cultivate and process. The processing cost of natural dyes is low, and for SMEs it is a viable and sustainable option economically to use natural dyes. The social aspect of natural dye use relates to sustainable work practices and labor rights, and SMEs working with natural dyes usually cooperate with the artisans and farmers to have sustainable and adapted working conditions (ibid). The environmental aspect of using natural dyes can be judged by looking at the pollution, resource use and human behavior activity. The advantage of using natural dye is that the pollution from the natural dye process is low, and the biomass waste and water waste can be reused (ibid). This is the aspect that was mainly discussed in the interviews. All brands use locally sourced natural dyes and use plants and raw material that you can find in Indonesia and are native to the country. Ing Madyokusuman (2022) is a jumputan, which means that fabrics are made with traditional dye techniques (shibori) and the company focuses on using natural fibres and dyes (Ing Madyokusuman, 2022). The brand mainly uses indigo and brown colours from barks as well as colours from leaves. The brand owner reflects that “since we work with natural dyes naturally, the fabric itself should also be of a biodegradable”, which is one more positive aspect of using natural dyes. On top of that, the brand also reflected that the water used during the dyeing process can be used to water plants for example. IMAJI Studio (2022) also uses natural dyes and they stated that their brand value is that they “are a natural dye apparel that fuses traditional ingredients from plants native to Indonesia” with all locally sources ingrediencies. The brand mainly focuses on using the colors red, yellow, black, white, blue and green. The dyes are produced from indigo plants in Indonesia. mangosteen trees, as well as other plans. KAIND (2022) also use natural dyes to dye their material, such as wood barks and leaves such as mango skin with the bark, seeds, mahogany bark, and indigo. KAIND states that because they use natural dyes and fabric their “product can easily decompose because it's 100 percent organic and biodegradable, which result of our silk woven textiles that are soft and non-allergenic.” (KAIND, 2022).

Another popular sustainable circular practice in the textile industry adapted by the brand sis zero-waste cutting, and this was mainly discussed by the brands Khaya Batik and KokaIND. According to Seamwork, about 15% of the fabric in the textile industry becomes scraps, and

the fabric is wasted and ends up as landfill for example (Seamwork, 2016). Zero waste cutting is a process where designs are made with the idea to not leave any waste or scraps in the cutting process. The idea is to create a pattern that fits like “puzzle pieces” so that no space of fabric is left unused (ibid). Khaya Batik (2022) explains that:

” So basically, it's like a jigsaw puzzle. So, every part of the whole clothing, the sleeves, the bodies, and then maybe the what the front panel, the panel and everything interlocks with each other. So, there is no negative space or scraps that you have to throw away.”

- Khaya Batik (2022)

For KokaIND (2022) the design of the zero-cut fabric is to “try to get it as straight as possible, so there's no left over “so when they cut, they cut straight pieces” any leftovers scraps are small but straight and can therefore be easily recycle into something else. For both brands, the reason for creating zero waste cutting patterns was to have a lower environmental impact. Khaya Batik also explained that there is a community for zero-waste cutting patterns where businesses and brands share their designs and can take inspiration from each other. The brands all use natural fabrics for their designs as well, such like linen and cotton. KokaIND and Khaya Batik both mainly focus on designing and creating fashion patterns, but the fabric they get from artisans and partners are all made from natural fibers.

The use of natural fibers, natural dyes and zero-cut patterns are the main points that were brought up by the five different brands when it comes to sustainable textile management practices. However, there are other aspects of their business practices that are sustainable, that mainly have to do with the organizational structure of the brands brings up a number of characteristics that are related to the organization’s strategy. Hallaert (2022, 28-29) defines the characteristics of organizational strategy as collaboration and knowledge sharing, community embeddedness and empowerment, localization, small scale, sufficiency driven, pursuit of workers wellbeing, simplified and open-access technologies, shift in values, consideration for the wellbeing of non-humans’ lives and normalization of degrowth through communication and production aimed at the needs of society. Some of these points were brought up during the interviews with the brands.

Localization refers to “having local sourcing, production, and exchange” as well as “community embeddedness, because localization can support community embeddedness, as well as support

the independence of the community” Hallaert (2022: 28). Manufy (2022) compiled reasons for why sourcing locally is good for the environment, and they argue that it gives brands more flexibility in design and adjusting to customer design, ensuring quality is easier and adapting to the market and customer demand is easier, and the manufacturing process can reduce cost and. Manufy (2022) compiled reasons for why sourcing locally is good for the environment is also good as it creates a closer connection to community. IMAJI studio stated that they “” work with local craftsmen. We give training and consider them as our partners” and the brand works with local craftsmen and artisans that have the same sustainability and ethical values as IMAJI studio.

In regard to workers wellbeing research has shown that this impacts the work outcomes to be more positive and the workers overall state of being better (Weziak-Bialowolska et al, 2019). The fashion industry has been known for having bad work environment, and exposes workers to bad health regulation, bad labour rights and low wages (ibid). KokaIND (2022) reflected on that in the interview and stated that “so what I do for my employees, they have working hours, it has reasonable working hours, with a reasonable payment.”. On top of that, the brand understands that the income from their business might not be enough for the artisans and employees to support themselves, so they are allowed to have other businesses on the side. The brand also pays commission when the employees do Instagram shopping and get extra paid for any work that the employees do that are outside of their main task. In regard to their artisan partners, Ing Madoyokusuman (2022), explain that it is important to understand the context that he artisans and craftsmen work in, and that there are social and other context that might make it difficult for people to work. Adapting the work to the craftsmen and artisans is therefore crucial in order to create a sustainable and fair work environment in their opinion.

“I think what's important is to realize that because we are working with people in village and we have to realize that they have social responsibilities that are like people who live in the city might not be aware of, like, for example, like they have to help in the village. And sometimes they cannot come (to work). So, we have to be aware of their like social contacts, and I think once we are aware of that and can make a schedule or workflow that works around it, I think it's easier, actually.”

- Ing Madoyokusuman (2022)

IMAJI Studio also values work environment highly, and not only with their partners in Bali, but also within the office in Jakarta. Representative from IMAJI studio stated that:

“I can assure you that the IMAJI studio that you create safe and accepting work environment. So we share and give knowledge to each other in the office so everyone have the knowledge with our brand identity.”

- IMAJI Studio (2022)

Community embeddedness and empowerment includes capacity development and providing good for the community (Hallaert, 2022). Ing Madyokusuman (2022) state that they want to be a brand “that by using eco-friendly materials, locally sourced materials and empowering the communities, we thought we can build a sustainable community”. This way, they address not only the issue of natural dyes and fabric, but also the connection to the community. The brand also focuses on educating the young population and engage with them to encourage them to become artisans and continue the tradition to make traditional textiles. Not only in regards to the partners they have on Bali, at their main office in Jakarta they “share and give knowledge to each other in the office so everyone have the knowledge with our brand identity” (IMAJI Studio, 2022). The brand representative stated that “. I think it's very important that if you work in sustainability company, there's not a toxic environment in the office” (ibid).

Collaboration and knowledge sharing is a key aspect of how KAIND (2022) works. The brand engages closely with the community and engage in educating and knowledge sharing in the community.

”We create the space, we give them the opportunity, the tools, the space, the materials as well, and so they can grow and then we educate with the others of the villages and create the products on how and for example, like how we can create the dyes from the seed, from this fruit.”

- KAIND (2022)

For IMAJI studio, the point of being sufficiency driven is very important. Sufficiency driven business model focusing not on pursuing growth, but in creating sufficiency in consumption. One of the challenges they stated they have is that:

“... we cannot produce that many collections of products because we want to reduce any need of stock. So, we produce it. Not as many, so we have our product sold out very fast and then we have to come up with something new and it needs a long time “

-IMAJI Studio, 2022

Not focusing on growth and high sales, the brand instead focuses on creating smaller amounts of garments and changing and improving the designs. Ing Madoyokusuman (2022) also reflects on this issue and states that it is more sustainable to not buy” something that will be discarded eventually in six months versus buying something for 40 years, but then you can wear it for years”. The idea of investing in good quality clothes that are made sustainable from sustainable material is more reasonable in the brands opinion than buying something that will not hold for long time and will be discarded.

A characteristic that was not brought up in the Hallaert (2022) framework for a business model approaching de-growth is the relation to local culture and traditions. However, this is a point that came up in all the interviews that is therefore deemed of importance to discuss in regard to sustainability. As mentioned above, all the brands focused on some aspects of Indonesian traditional clothing. Either the brand created the batik style or batik-inspired patterns, or they used fabric that had has batik or batik-inspired patterns. In all interviews, the connection and incorporation of local culture into the sustainable practices was a fundamental aspect of the textile and garment creation process. The representative for Khaya batik explained that there are two ways to create the batik pattern that align with sustainable practices: by hand drawing the pattern and by hands taming. The hand-drawn batik pattern us done by using liquid wax that artisans and crafters put on create pattern on the cloth. And after that, the fabric is dipped it in the coloring. You can use any kind of coloring, natural dye, or synthetic dye, however using natural dye is more sustainable. The hand drawn pattern takes longer time; however, it is easier to change designs and customize the design. The second way to create the pattern is by hand stamping, where a metal block-print block is used to stamp on the design. This takes less time than the hand-drawn process, however the metal blocks require more strength to use (Khaya batik, 2022).

Brown and Vacca, (2022:590) argue that “local knowledge of traditional handcrafts can be considered as a sustainable repository of culture” and greatly contributes to the cultural sustainability. It also aids strengthening identity and cultural heritage can be seen as investing

in human and cultural capital (Brown and Vacca, 2022). Khaya batik reflects on the fact that batik was acknowledged as a UNESCO's Intangible Cultural Heritage of Humanity list in 2009 and is "recognized as an historical fabric of human civilization" (UNESCO,n/d). Khaya batik stated that "Indonesian people feel that it's very they're very proud of that" and the government has since then encouraged governmental workers ask workers to wear batik once a week and then the private sector has also been following this trend (Khaya batik, 2022). For KokaIND, it was a personal love for the batik pattern that was based on a personal interest for the clothing style. The founder of KokaIND stated that "I just love it. And I want more people to love it.". IMAJI Studio explains that the batik style, especial naturally dyed and handmade, has become a trend among the Indonesian population, especially in Jakarta where the studio is located. There has also been an interest in matching traditional clothing with new staple pieces (IMAJI Studio, 2022). There is also the importance of conserving the traditional and culturally embedded textile practices. Oftentimes, they are already fundamentally sustainable. One of the founders of Ing Madoyokusuman (2022) expressed that:

"I think what's in this thing in Indonesian sustainable fashion is that a lot of them work very closely with the local cultures, because when if we look back like our ancestors, our ancestors a long time ago, they make things. They grow things sustainably. So instead of like thinking of the ways to do this and they just look back and see what our ancestors have done, and they are sustainable. So, we just need to continue that, like instead of trying to unnecessarily modernize. "

- Ing Madoyokusuman (2022)

While there is no doubt that all the brands that were interviewed are aligning with the de-growth characteristics presented in Hallaerts (2022) framework for a business model approaching de-growth. All brands are aware of the negative impact that the fashion industry has on the environment. Therefore, all of them are invested in improving the environmental and social impact of their business practices. At the core for all these brands was the strive to create fashion that is environmentally sustainable by using sustainable textile management by using natural dyes and fabric or innovative zero-waste cut designs and implementing fair and ethical work and labour standards.

5.3 Challenges in being a sustainable brand

All interviewees were also asked what they identify being the challenges of being a sustainable brand. All of the brands agree that informing the customer and educating the customers about sustainable consumption and sustainability is a challenge. Consumer awareness in regard to sustainable fashion has been on the rise, and research shows that consumers are more and more concerned about brands being ethical and sustainable, and show concern for issues of climate change as well (Mandaric et al, 2021). However, Mandaric et al (2021) state that it does not reflect in the consumers behavior. Consumers still buy garments from fast fashion brands, which shows a discrepancy between intent and action (ibid). according to Mandaric et al, (2021:596) “these factors include lack of consumer knowledge, availability of information, economic resources, retail environment, and societal norms “. In order for the slow fashion trend to establish themselves in society, change in behavior is needed both from businesses and consumers. Businesses should move towards producing more sustainable products and engage in ethical and sustainable business practices, and consumers have to make more conscious choices in their consumption (ibid). Mandaric et al (2021) suggest that:

”by creating content about sustainability and encouraging conversation about it, fashion brands can create an opportunity to increase buyers’ interest in sustainable fashion, help reduce the negative environmental impact, but also improve their overall image and influence consumer information and awareness. ”

-Mandaric et al (2021:606)

In regards to smaller brands the Asia-Pacific Economic Cooperation (2016) states that consumer compare the prices of the products to the market value, which is driven by the fast fashion industry. This way, one can argue that the consumers might overlook some of the values and ethical aspects if the price is too expensive, which is one of the challenges the brands that were interviewed noted. KAIND stated that communicating the price and explaining why the garments cost the way they do is difficult. The price is higher because it reflects the effort the artisans and craftsman put in to make handmade products. Khaya batik also commented that there is a misconception among the Indonesian population that has made the connotation that sustainable means expensive. Ing Madoyokusuman explains that

“in Indonesia, people associate sustainable fashion with expensive stuff because they are sustainable brands that have their shops in like upscale mall. And they do the and the price is indeed expensive.” (Emphasis in speech).

- Ing Madoyokusuman, 2022

Ing Madoyokusuman explains that they feel it's a shame, because there are so many alternatives like local small brands and local communities that sell similar type of clothing to the ones sold at upscale brands in malls. The interviewees all argue that the cost of the clothes reflect the effort and time that is put into the process. Khaya batik argues that therefore "sustainable doesn't have to be expensive (...) it cannot be that cheap, but at least it's affordable.". IMAJI Studio explains that their products can be seen to be on the pricier side, and products have certain ways to care, because natural dyes can fade and the garments need more careful care when washing. So, in order for the consumer to feel like they are investing in their clothing, and challenge is in giving knowledge to our customers. Creating and spreading awareness regarding sustainability as well as creating awareness about sustainable fashion was the other big challenge that all the brands identified. KAIND explains that the challenge of educating the market, especially the young the young people, is difficult. The younger generation is less interested in wearing traditional clothing, as they see it as not being trendy (KAIND, 2022). Khaya Batik argues that the market for sustainable fashion is still a niche market in Indonesia, and that's the first challenge is to educate the market. The representative explained that they believe that "when we succeed in educating the market, then price will not be a problem anymore." (Khaya Batik, 2022). KokaIND also discusses that while using the zero-cut pattern approach lowers the cost for tailoring, the cost of designing the pattern goes up.

However, the brands also identified some opportunities as well. IMAJI studio stated that since there has been a trend and interest in sustainability, there is a growing platform where spreading information about sustainability is possible. Khaya batik also discusses future innovations in the natural dye process and argues that there is an opportunity in finding new sources for dyes. Ing Madoyokusuman (2022) summarized the opportunities that the brands saw well in the below statement:

"The good the good thing is the market is growing. So like the effort has started to pay off well, not only with us, but like the other brands, other communities also. They really are making a huge effort in promoting sustainable fashion. So, the market is growing. And I think more and more people, especially in large cities, are getting aware of, like getting more conscious about what they buy, what they wear, what they consume. So, it's a good thing. So, I think it will take time, but we will get there eventually, like if we just keep on making the effort."

- Ing Madoyokusuman, 2022

While the brands identified challenges, they all expressed that sustainability is the way forward for fashion brands and for the fashion industry.

6. Conclusion

With the fashion industry being one of the biggest contributors to pollution and environmental degradation (UN Environment, 2020), there is a need for rapid fundamental change in how businesses and consumers think and act when it comes to fashion (Centobelli et al, 2022). The unsustainable practices in textile manufacturing and producing create negative environmental impacts through excessive water use, pollution and emissions, and release of harmful chemical substances and creating textile waste (Niinimäki et al, 2020). Addressing the issues that the textile value chain creates is crucial and focusing on sustainable solutions to these problems will ensure that the solutions we adapt are long lasting and do not create more damage (Centobelli et al, 2022). All stakeholders must adapt a sustainable approach to their business practices and material management in order for there to be a fundamental change in society (UN Environment programme, 2020). SMEs have been seen at the frontlines of this change (Asia-Pacific Economic Cooperation (2016), and while SMEs are important for the Indonesian economic development, both in the fashion industry and the manufacturing industry as a whole (Asia-Pacific Economic Cooperation (2016) this thesis showed that SMEs and small brands are also an important actor when it comes to moving the textile production towards being more sustainable. The de-growth approach framed by Hallaerts (2022) framework for a business model approaching de-growth helped highlight the different characteristics of the brands that were interviewed. It showed that while some approaches were different, such as brands focusing more on the natural dye process and other focusing on the design stage and zero-waste cutting, a lot of fundamental ideas regarding sustainability aligned. At the core of all these companies was a drive towards contributing to a sustainable fashion industry and an ambition to change the attitudes among consumers. Štefko and Steffek (2018:1) states that “fashion is akin to art, which reflects the uniqueness of a time, place, and culture”. The brands that were interviewed for this thesis showed that there is a way to make fashion sustainable, ethical, and integrated with the Indonesian culture and traditions.

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8. Appendix

Appendix 1. Interview Guide.

Consent Form- Interview for Thesis Data Collection

MS in International Development and Management, Lund University

Maria Yartseva

Objective of the thesis: to understand the different sustainable practices that small and medium size business in Indonesia adapt, focusing on sustainability in resource management and sustainable solutions in the textile supply chain. The focus is on businesses and organizations working in the fashion industry, and especially focus on female farmers/entrepreneurs in this line of work.

Interview information: This interview will be based on several open-ended questions. Follow up questions might be asked. Information given during the interview may be quoted in the master's thesis and master thesis opposition. If given consent, the interview will be voice recorded for transcription purposes. All original audio recordings will only be retained on Maria Yartseva personal Google Drive and on her personal computer for 6 months and will not be made accessible to anyone else. Participation in this interview is voluntarily and even if you agree to participate now, you can withdraw at any time or refuse to answer any question without any consequences of any kind. You can also withdraw permission to use data from your interview within one week after the interview, in which case the material will be deleted.

The identity of the interviewee, or any other individuals mentioned, will be **anonymous and not mentioned in the thesis at any point**. Name of the interviewees organization and other organizations mentioned might be used in the thesis, unless the interviewee requests it not to be. In that case, **the name of the organization will be treated confidentially and anonymized** in any report on the results of this research. Confidentiality will be done by changing the name and disguising any details of the interview which may reveal the interviewees' identity, or the identity of people mentioned.

For any further questions please feel free to contact:

Maria Yartseva
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Interview Themes and Questions

Information about interviewee and organization

What organization do you work for?

Can you tell me a bit about the organisation, what you work with and how the organization is structured?

What are the organisations main aims and objectives regarding sustainability?

How does your organization make your textile management practices sustainable?

How does your organization work to make your organization's business practices sustainable?

What are the challenges of working with sustainability and fashion?

How does your organization interact with the local culture and how do you think it impacts the sustainability work of your organization?

In what ways do you see that focusing on sustainability creates challenges for you on the market?

In what ways do you see that focusing on sustainability creates opportunities for you on the market?

Working with gender equality and entrepreneurs in the context of the above questions

What are the division between the genders in your organization?

Is there any knowledge regarding sustainable textile management practices that you consider to be gendered? If yes, which ones and why?

What is important to your organization when working with gender equality and female empowerment?