

Creating Sustainable Fashion Collection Made Of Handloom Textile For Australian Market



Janet Rine Teowarang

Department of Fashion Product Design & Business, Creative Industry Faculty, Ciputra University of Surabaya, janet.teowarang@ciputra.ac.id

<https://orcid.org/0000-0001-6871-4462>

Michael Nathaniel Kurniawan

Department of Visual Communication Design, Creative Industry Faculty, Ciputra University of Surabaya, michael.nathaniel@ciputra.ac.id

<https://orcid.org/0000-0001-9637-7715>

Carla Van Lunn

QUT Queensland University of Technology, Australia

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ABSTRACT

It is undeniable that the fashion industry has a huge impact on the environment, society and economy. In the midst of the movement of the fashion industry towards a sustainable concept, the COVID-19 pandemic came and stopped the movement of the global and domestic fashion industry. This caused a huge financial loss, but also provided an opportunity for the fashion industry to reimagine a better future. This article is the result of a practice-based research, where fashion designer of Allegra Jane creates a sustainable fashion collection made of eco-friendly handloom weaving for the Australian market. Through this practice, the designer learns about the cultivation of eri silkworms that produce peace silk, the processes involved in the making of natural weaving and dyeing that can be used to reinforce the concept of sustainable design, and the design process for Australians who are more receptive to clothing with a sustainable concept. This practice is useful for enriching literature in this field and providing examples of how the Indonesian fashion industry can begin to rise from the COVID-19 negative impacts.

Kata Kunci:
Keberlanjutan, Fesyen, COVID-19, Sutra, Tenun ATBM

ABSTRAK

Tidak dapat dipungkiri bahwa industri fesyen memiliki dampak yang sangat besar terhadap lingkungan, sosial-masyarakat, dan ekonomi. Di tengah pergerakan industri fesyen menuju arah yang berkelanjutan, pandemi COVID-19 datang dan menghentikan pergerakan industri fesyen global dan domestik. Hal ini menyebabkan kerugian finansial yang sangat besar, namun juga memberikan kesempatan bagi industri fesyen untuk memikirkan kembali masa depan yang lebih baik. Artikel ini adalah hasil dari

penelitian berbasis praktik, dimana fesyen desainer merek Allegra Jane berusaha untuk merancang koleksi *sustainable fashion* dengan mengangkat tenun ATBM sutra fabrikasi yang ramah lingkungan untuk pasar Australia. Melalui praktik tersebut, fesyen desainer dari merek Allegra Jane belajar untuk memahami budidaya ulat sutra eri yang menghasilkan *peace silk*, proses penenunan dan pewarnaan alam yang dapat digunakan untuk memperkuat konsep desain yang berkelanjutan, serta proses desain untuk masyarakat Australia yang lebih siap menerima pakaian dengan konsep berkelanjutan. Praktik ini berguna untuk memperkaya literatur di bidang ini dan memberikan contoh bagaimana industri fesyen Indonesia dapat mulai bangkit dari keterpurukan pra-pandemi COVID-19.



INTRODUCTION

Fashion industry certainly brings huge impacts for the environment, society, and economy (Brooks, et.al., 2019; Conell & Kozar, 2017; Jestratišević & Rudd, 2018; Truecostmovie, 2015). The greed of fashion industry in consuming the natural resources in the process of producing and marketing their products results in the destructive greenhouse gases and pollution. The way the society greedily consumes textile and clothes is another threat for the environment's sustainability. Fashion industry also cannot be isolated from human rights issues mainly those happening in the production process i.e. child and forced workers, too low minimum wage, over working hours with no compensation, issues on working safety and health harms, and the inadequate number of the workers' representatives to negotiate with the management. These problems are challenges for the sustainable society and economy (Conell & Kozar, 2017).

On climate changes, Christina Dean – a former journalist who becomes a sustainable fashion industry activist and the founder of NGO Redress- in an interview responded to a documentary film entitled "The True Cost" says that based on her previous research, China alone produces 26 million tons of fashion industry waste every year, whereas Hongkong dumps 270 tons of clothings every day (Truecostmovie, 2015). However, she claims that in this context, clothing waste is not the main problem because the textile production process is much more harmful for the environment and society.

Textile production process consumes a lot of finite natural resources such as water, oil, and soil. For instance, to produce a pair of jean trousers, 3.625 litres of water is needed. This amount fulfills human basic need of water to survive in twenty five years. Other than that, it also uses three kilograms of poisonous chemical substances harmful for the soil and human because it may trigger cancer. Moreover, the electricity consumed is enough to keep one lamp on for 116 days or to fulfill the electricity need of a 13m² plantation. Overall, the impacts of a fast fashion industry endanger the environment's sustainability and human's ability to survive (Truecostmovie, 2015).

A more horrific statistic is published by the United Nations in one of their initiatives, *#ACTNOW Fashion Challenge*. It is stated there that a pair of jeans production consumes 10.000 litres of water and the fashion industry needs ninety three billion meter cubics of water per year. This industry also use more energy than the amount of energy needed in aviation and shipping industries. Fashion industry contributes ten percent of global carbon emission and results in twenty percent of the total liquid waste. Every year, US \$500 billion is gone because of the lack on clothes use and the lack of clothes recycle (United Nations, 2019a). This fact makes the UN to urge fashion industries to be committed to produce fashion without waste.

In responding to those challenges, sustainability is considered as a wholistic solution that can improve fashion industry market in which the success of fashion industries will depend on the mutual synergy among the economy (Profit), society (People) and environment (Planet). This concept is called the three pillars of sustainable bussiness (the 3 P's of sustainable business). It is also known as the Triple Bottom Line (TBL) (Jestratišević & Rudd, 2018). TBL is a concept to measure a bussiness performance that encourage enterprises' commitment to calculate the social and environmental responsibility of their busiiness, in addition to their financial performance (Connell & Kozar, 2017).

T. Brydges, M. Retamal, & M. Hanlon, (2020) asserts that in line with the England Modern Slavery Act 2015 and the vision of the Sustainable Development Goals issued by the United Nations in the same year, mainly number 12 about the Responsible Production and Consumption and number 13 about Climate Change, started from several years before the Covid-19 pandemic, industries had been slowly responded to the sustainability issue. In 2018, the Charter of Fashion Industry for Climate Acts

was presented at COP24 in Poland (UNFCCC, 2018). This program triggered other initiatives such as #ACTNOW Fashion Challenge ((United Nations), 2019a), *Conscious Fashion and Lifestyle Action Network* in 2019 ((United Nations), 2020), and UN Alliance for Sustainable Fashion using social media hashtag #UNfashion ((United Nations), 2019b). It was strengthened by The Fashion Pact presented to the G7 leaders by the president of France, Emmanuel Jean-Michel Frédéric Macron, supported by biggest fashion brands such as H&M, Inditex, Gap, Stella McCartney and Kering Group (Brydges, T., Retamal, M., & Hanlon, M., 2020).

The efforts to bring up the sustainability issues were interrupted by the Covid-19 pandemic that spreaded all over the world and stopped all fashion industries activities at once. A report of Business of Fashion 2020 in Brydges et al., (2020) claimed that gigantic financial loss and troubles occurred because of the cancellations of fashion weeks, fashion stores closing, workers on leave, the raising number of the unsold item, and payment delays. However, this disruption phenomenon then brought about an opportunity for fashion industries to do reflection and reconsider a better future in terms of operational matters, production process, consumption, and people's life style ((United Nations), 2020).

However, Brydges et al., (2020) in his study affirmed that it needed to be studied further whether or not Covid-19 pandemic truly could support this industry to move to the sustainability mode. This conclusion was drawn based on the result of an analysis to more than fifty reports and news related to this matter to identify the impacts of the pandemic to the five stages of fashion industrial supply chain: design, production, retail, consumption, and product expiration date. Brydges et al., (2020) found out that the improvement on sustainability in fashion industrial supply cycle was not the same for all stages; for instance design and consumption stages were given a much bigger portion than other stages such as the product expiration date stage. He also claimed that the best scenario in this situation and condition was that the severe economy upheaval could trigger changes happening to fashion brands and consumers behavior that led to a more sustainable industry.

In line with the fashion industry that move toward sustainable industry, Indonesian government supports the fashion industry players in Indonesia to keep growing. Related to this matter, the government has long admitted that the small and middle scale business plays an important role in the local and national development so that they need to be fully, optimally, and continuously empowered. It is proven by enacting the Republic of Indonesia Act Number 20 Year 2008 on the empowerment of the micro, small, and middle businesses (Kurniyati, Utami, & Sukanadi, 2018)..

At the recent time, one of the impacted businesses is the eri silkworms farmers in East Java; the number of the farmers is decreasing because the market demand downsizes drastically in the pandemic time (Riani, 2021). This industry sector is extremely important to be endorsed because natural fiber-based fabrics like silk is eco-friendly, fuel free, bio-degradable, and sustainable. Ahimsa silk is also wellknown as peace silk or vegan silk because the cultivation is organized without killing the worms inside the cocoons. Peace silk is definitely a more sustainable alternative for conventional mulberry silk.

In responding to this matter, fashion designers of Allegra Jane brand designed a collection of sustainable fashion made of silk created by handloom. The collection was aimed to the Australian market that was considered more ready to accept the concept of sustainable fashion. The brand also intended to introduce fabricated silk made in Indonesia as a product with super quality that could



compete in export market. This article discusses the findings of a practice-based research in fashion field.

METHODS

The employed method was the practice-based research. The basic principle of this research is that the practice (creating) is the inseparable part of the research process in which the research questions comes from the practice process and it provides the researcher with a space of exploration to find answers and different new knowledge that can explain and improve the practice in the future (Candy & Edmonds, 2018).. The afore-mentioned practice in this research was the designing of sustainable fashion collection using peace silk material and handloom. The difference between a practice-based research and a design research is the emphasis of the study; the former emphasizes on the understanding on the practice nature and how to improve them, not on the process of creating and reflecting new artefacts. In this context, design practice and design research were conducted in a way to produce new knowledge that can be disseminated and researched further (Candy & Edmonds, 2018).

The use of this method in fashion design had ever been undertaken by Sedjati & Sari (2019). The practice-based research to utilize peace silk in sustainable fashion industry will be beneficial to enrich the literature in this field since research on this topic is still very limited. There is only a little number of journals discussing this subject matter listed in Garuda, an Indonesian academic journal portal.

RESULT AND DISCUSSION

Eri Wormsilk Farming in Indonesia

Indonesia has been famous for its traditional fabrics, ranging from batik until woven cloths. However, a little number of people know that Indonesia has farming producing eri silk that can be used as raw material in sustainable fashion industries. In designing the discussed collection, Allegra Jane used fabricated peace silk combined with TENCEL™ fibers produced by KaIND, a small-middle scale business located in Pasuruan, East Java. In 2019, in several areas in East Java, i.e. Malang, Pasuruan, Mojokerto, Tumpang, and the nearby areas, there were two hundreds and fifty eri silkworm farmers who were under KaIND's guidance in producing healthy, clean, white big cocoons of eri silkworms (*Samia cynthia ricini*). Those farmers harvested silk fibers without terminating the pupas so that the silk was popularly called peace silk. Nowadays, this farming method becomes very wellknown conforming with the raise of people's interest and attention to eco-friendly items that are produced without interrupting the natural life cycle of the silkworms. The farmers do not need to prepare steril rooms that needs a high cost maintenance. This type of farming is simpler and at the same cheaper. The farmers only have to prepare an empty room at their house and set simple wooden or bamboo racks.

KaIND collaborated with a multinational company, the Lenzing Group, to produce high quality textile fibers. The eco-friendly fiber type was made by fabricating KaIND's eri silk fiber and Lenzing's fiber named TENCEL™. This fabricated silk thread spinning mill was the first and the only one in Indonesia. Unfortunately in the midst of 2020 when the Covid-19 pandemic began, the number of the farmers and their productivity decreased sharply.. In the pandemic era, the consumers' interest to purchase fashion products and Indonesian traditional fabrics lowered down because clothing was not

considered the main need. People put health and food at their highest ranks of priority. Because of the absence of the market demand, most of the farmers decided to find an alternative income source. There were only twenty farmers stuck with the choice to farm eri silkworms and half of that number were female farmers who were also housewives.

Having seen this condition, KaIND tried to revive the eri silkworm farming to supply the demand of silk fiber because there was a decrease in productivity up to only thirty to forty kilograms. To produce fabricated silk spun yarn, it needed three hundred kilograms of silk yarn. In June 2021, KaIND collaborating with the Leazing Group, and Benih Baik, a crowd funding platform, organized an open donation program via www.benihbaik.com that ended in September 2021. The fund raising was aimed at revitalizing the eri silkworm farmer ecosystem and improving their productivity. By doing so, it was hoped that there was sufficient supply for silk yarn production and in turn, the weaving artisans could produce fabricated silk woven fabrics to be used in fashion industry. The collected fund was given to KUPU Sutera cooperation to prepare dried cocoons. They will be treated further to produce fabricated yarns by mixing TENCEL™ fibers and eri silk in PT Lakumas that was located in Tegal, Central Java.



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Picture 1. A female eri silkworm farmer who was a housewife (Sumber: Documentation of KaIND, 2020).

Picture 2. Eri silkworm farming using simple wooden or bamboo racks (Source: Documentation of KaIND, 2020).

Picture 3. Healthy, clean, white, and big cocoons of *Samia chyntia ricini* (Source: Documentation of KaIND, 2020).



INTRODUCING THE ABSOLUTE ECO-FABRIC WITH COMFORT AND GOOD CONSCIENCE





Handwoven batik product from ethical and responsible source materials. Combining the best of both worlds:

- 1. ERI SILK FROM SAMIA CYNTHIA RICINI COCOON**
 - a. Ethically sourced from local eri silkworm farmers in Pasuruan
 - b. Extracted without killing the pupa inside
 - c. Creating silk products embodied with natural slub
- 2. TENCEL FIBERS FROM FSC CERTIFIED WOOD**
 - a. Low water usage and sustainable production
 - b. Minimizing the impact to the environment
 - c. Excellent dyeing absorption

**The true definition of
UNIQUELY
sustainable
fashion
products**


<ul style="list-style-type: none">  Natural Slub Natural slub giving unique silk texture to the fabric  Contains REAL silk The fabric is not just silky but contains REAL silk, sourced from the village cooperative in Pasuruan  Silk without killing What is better than silk? Vegan silk or widely known as PEACE silk, extracted from cocoon without killing the pupa  Biodegradable Fabric is 100% organic and completely biodegradable 	<ul style="list-style-type: none">  Excellent comfort Soft to touch, breathable fabric, and moisture control  Color Brilliance Efficient dyeing uptake and impressive color brilliance  Empower village by creating local jobs to weavers  Not mechanically printed Natural dyes, wax resists
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Picture 4. Infographics illustrating the combination of TENCEL™ fibers and eri silk resulted in the first integrated organic fiber in Indonesia (Source: Documentation of KaIND, 2020).


Support Our Goals

With the availability of our silk blend yarns, we will be able to be the supplier of handwoven silk fabrics for the national ATBM weaving industry spread in almost all parts of Indonesia.


The presence of eco-friendly local yarns and fabrics will revive and develop the handwoven products along with the batik industry. It will also enable to reduce the dependency on non-domestic silk yarns and fabrics to lead to the reestablishment of the national textile industry.



In collaboration with Lakumas

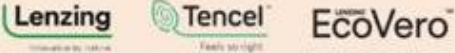



We have created a fine yarn that has the combination of Eri silk and Tencel fiber. The yarn is being spun at Lakumas spinning mill in Central Java using the latest spinning technology with high efficiency and power saving instrument. Later, the yarn will be handwoven and batik painted at KaIND workshop in Purwosari, Pasuruan.




Tencel

Tencel is derived from a sustainable source of wood, which transforms wood pulp into cellulosic fibers with low environmental impact.



Partnered with local Eri Silkworm farmers

We collaborate to develop the Eri Silk farming in Pasuruan, Malang and the surrounding areas to obtain silk as our material.



Picture 5. Infographics showing KaIND's goals and its collaboration with yarn spinning manufacture PT Lakumas of Tegal, Central Java (Sumber: Dokumentasi KaIND, 2020).



1. Characteristics of Fabricated Silk Produced Using Handlooms and Natural Dyes

Allegra Jane is a fashion designer brand that has been practicing the TBL concept focusing on economy, environment, and society (see Picture 6.). They promoted the using of Indonesian traditional cloths made of hand-woven fabricated silk. Their goals was to support the sustainable fashion industry and to recover the economy collapse due to the Covid-19 pandemic. Fashion industries could contribute to the efforts of keeping and preserving the nature by using natural dyes for cloths. In addition to it, the liquid waste from the dyeing stage should be processed to get clean water so that it was safe to be returned back to the water ecosystems such as rivers. The use of this silk yarn also empowered female silkworm farmers and providing the weaving artisans and workers in KaIND with jobs. Actually, it was not only a solution for the economical problems but also the social problems because KaIND workers came from various social background such as ex-thugs, dropouts, and jobless single mothers. This business supply chain gave the local people an opportunity to learn and develop a new skill. In a broad sense, this effort was an effort to conserve weaving culture.



Picture 6. Illustration of the three pillars of sustainable brand of Allegra Jane. (Source: Documentation of Allegra Jane, 2018)

In this creation, the fabricated silk spun yarns were woven using a non-machine tool. The tool was a set of tall and big woods so that they were quite heavy to be operated. Because of it, most of the weaving artisan in Pasuruan Regency were males. The stages in the weaving process were:

1. Packing yarn pallets: a process to move silk yarn bundle to become yarn spool (*kelos*) using the spinning wheel (*erek*).
2. Warping (*Langkan*): arranging the yarns on the warping frame from the top to the bottom starting from left to right (lengthwise); the number of the arranged yarn was based on the size of the cloth to be made and the density of the reed used
3. After that, each yarn was passed through a small hole called heddles or *mata gun*. These holes functioned to tidy and set the pattern to be woven.
4. The next process used a tool called *sekiran*. It was used to arrange the yarns before they enter the loom. At this stage, the artisans designed the motifs and set the yarns to prevent loose weaves or even wholes on the woven cloth.

5. Following was the *tambur*: the process of moving the yarns from the big beams to the small beam- a stick used to roll silk yarns to be the filling yarns. The yarns from the small beam were passed through the heddles one by one based on the woven pattern. Those yarns passed through the reed and were rolled by the cloth rolling beam. Approximately, 2000 yarns were set in one weaving tool to produce a piece of a sixty five centimeter width bone white cloth. Making this cloth needed six hour working duration.



Picture 7. Non-machine Weaving Tool (Handloom) made of thick, strong wooden frame. (Source: Documentation of KalIND, 2019)





Picture 8. One of the weaving stages.
(Source: Documentation of KaIND, 2019)



Picture 9. Weaving artisan of KalND in Purwosari, Pasuruan, East Java. (Source: Documentation of KalND, 2019)

Different from other woven cloth produced in East Java, Bali, and East Nusa Tenggara that were thick and rigid, the fabricated silk had different characteristics, i.e. thin, absorbing sweat well, comfortable to be worn like cotton textile or rayon. TENCEL™ fibers contained in this cloth made it comfortable to be worn. It was because TENCEL™ was made of certified wood FSC that resembled cotton yet produced via an eco-friendly process. This fiber absorbed natural dye better and had the



ability to control human body moisture. Its 2D small motifs were unique completed with surface texture resulted from the natural silk yarns. Natural coloring applied on silk cloth used various natural dye materials, namely:

1. Sappan wood to produce pink color
2. Jolawe wood (*Terminalia bellerica*) to get black color
3. Leaves of *Indigofera Tinctoria* to get indigo color
4. Mahogany tree bark to have cocholate
5. Yellow flame tree bark to get green
6. Achiote (*Bixa Orellana*) seeds to produce pink and orange



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Picture 10. Seed of *Bixa Orellana* (Achiote) planted in KaIND production area. (Source: Documentation of KaIND, 2019)

Picture 11. Natural dye solution that was carefully stored in safe containers could be used repeatedly. (Source: Documentation of KaIND, 2019)

The making of the fabricated silk hand woven cloth was a perfect example of an integrated sustainable production system. It covered these processes: spinning the two kinds of fiber to produce unique fabricated silk yarns; weaving the fabricated yarns to get silk fabrics; and coloring the cloths using natural dyes; conducting a responsible treatment for the resulted liquid waste.

2. Creating Sustainable Fashion Collection for Australian Market

The fashion designer of Allegra Jane designed a collection of sustainable fashion made of fabricated silk hand woven fabrics as an effort to revitalizing one of the ecosystem links of the sustainable fashion industry. All pieces in the collection were designed specifically to target the Australian market that was considered more ready to consume clothing accomodating the sustainable fashion concept. Allegra Jane used the basic elements of and applied the basic principles of fashion design to create a muti-functional collection. It was made in all size collection for 25-40 aged Australian women. The designer was intentionally designed this collection not following the annual fashion trend because the concept of sustainable fashion was focused on the long product lifetime and flexibility so

that the items can be mixed and matched to come to a unique style for each unique individual. The design concept was an extension from the former one that had been formulated by Allegra Jane and KaIND and brought to an auction in a program called BRILIANPRENEUR Lokal Keren Jatim in August 2021. The basic principles used in that collection were:

1. The use of the combination of line types, i.e. long strict lines and free-direction curving lines to shape the silhouette of the clothes
2. The use of the combination of three directions: vertical, horizontal, and diagonal applied on the details such as collar, sleeves, etc.
3. The use of decorative shapes taken from the motifs of the woven cloth that add different 2D motifs to each piece of cloth.
4. The use of the all size size was determined by identifying the height and body size of most 24-40 aged Australian women..
5. The use of texture on plain cloths (with no batik motifs on them), non shiny; soft cloth with appropriate thickness.
6. The use of color value (tended to be faded or pale) resulted from the use of natural dyes was beneficial in attracting the Australian market interest.
7. The use of color in this collection design was unique in terms of color combination resulted from natural dyeing.



Picture 12. Design concept of sustainable fashion collection for BRILIANPRENEUR Lokal Keren Jatim (Source: Documentation of Allegra Jane, 2021)

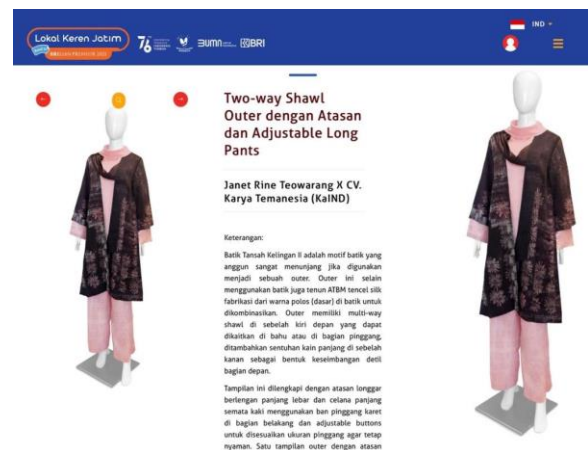




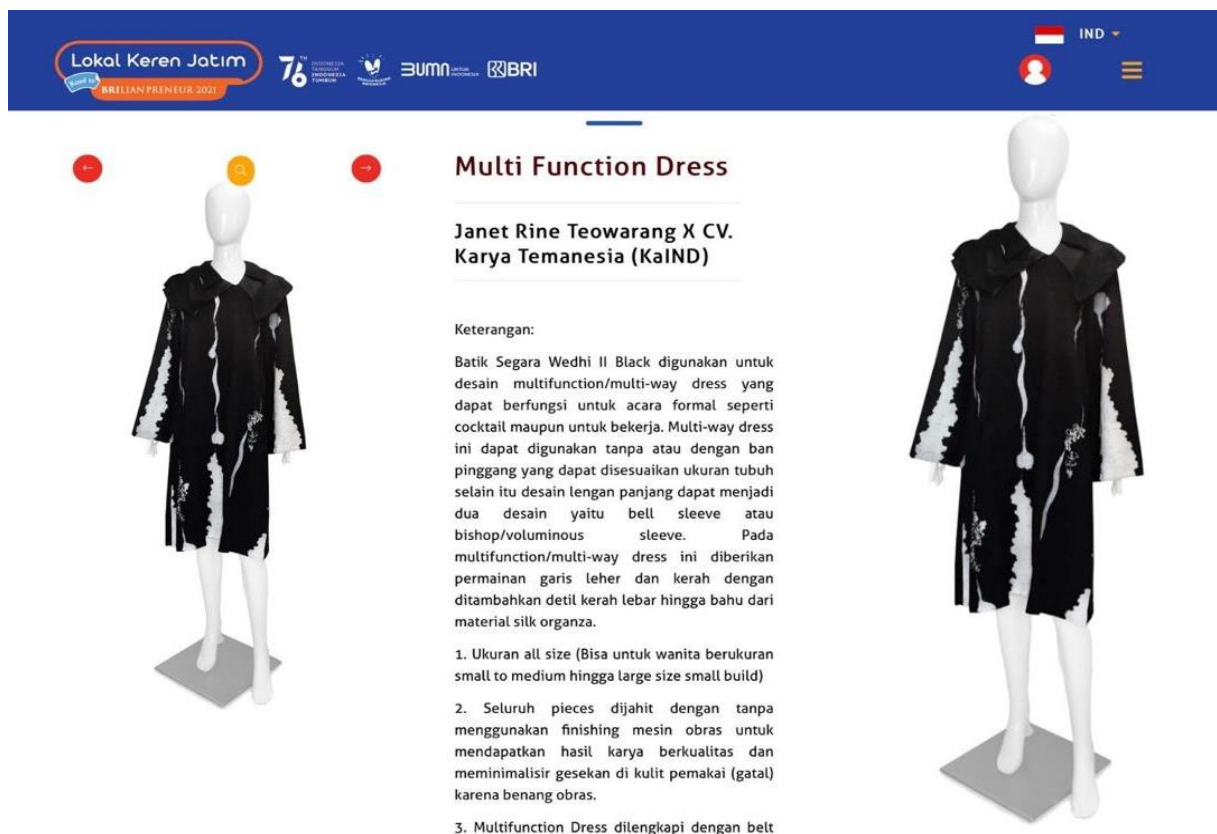
Picture 13. An example of a woman suit made of fabricated silk hand woven cloth (Source: Documentation of Allegra Jane, 2021)



Picture 14. An example of a set of clothes: a top, a bottom, and an outer made of fabricated silk hand woven cloth (Source: Documentation of Allegra Jane, 2021)



Picture 15. One of the collections exhibited in BRIIANPRENEUR Lokal Keren Jatim site (Source: Documentation of Lokal Keren Jatim, 2021)



Picture 16. One of the collections exhibited in BRILIANPRENEUR Lokal Keren Jatim site (Source: Documentation of Lokal Keren Jatim, 2021)

The creation process of the sustainable fashion collection employed the basic principles of fashion design on each clothing type such as:

1. Harmony: each item of this collection could be mixed and matched, for example the tops, the bottoms, and the outers, unless the dresses that could only be matched with outers.
2. Proportion: each item of the collection was designed proportionally; the length of the top, bottom, outer, and dress were adjusted to the target market body sizes.
3. Balance: the designer kept the balance of the outfit well, for example a knee-length outer was balanced by matching it with a pair of trousers or a knee-length skirt to make the user looked tall mainly for those who were less than 165 centimeter and more than 155 centimeter.
4. The look of all designs presented a combination of lines, directions, etc. to create a pattern without presenting a sense of rigidness although the cloth had some details with bold line such a firm-lined collar.
5. Some details functioned as an accent for each piece to highlight the design characteristic of Allegra Jane fashion brand.

The decision to choose Australia to market the collection was made based on the data collected from the field observation conducted in Sydney, Melbourne, and Brisbane in 2017. The

people of those three cities had been identified to accept the practice of sustainable fashion and textile industry. In addition to it, the design was also undertaken by considering the result of the online discussion with some of sustainable industry practitioners from Sidney and Brisbane in 2020 and 2021. The government of Indonesia also supported this creation via the Ministry of Trade. Indonesian Trade Promotion Center of Sydney facilitated the made-in Indonesia products to be introduced and marketed in Australia. This design took a part in the government's effort to revitalize Indonesian craft and textile industries that were negatively impacted by the Covid-19 pandemic.

CONCLUSION

The design of sustainable fashion collection made of fabricated silk hand woven cloths was an effort to solve a problem caused by the Covid-19 pandemic, namely the decreasing number of silk fiber supply for fabricated silk due to the decreasing number of eri silkworm farmers in East Java. Moreover, the fashion industries in Indonesia had to move toward the TBL concept to fulfill the global market demand of sustainable fashion products. By introducing Indonesian eri silk to the Australian market, it was hoped that the farming of eri silkworms in East Java would survive and in turn the weaving artisan's productivity would raise so that they could fulfill the fashion industry demand, both in the country and outside the country. The collection was designed in these characteristics: trendless, meaning that the designer did not refer to the trend, multifunction, adjusted to the target market's body and needs, easily to be mixed and matched, long lifetime, and high quality. Australia was determined to be the destination of the market because most of the people had adopted sustainable concept in their lives. Australian fashion and textile industries started to practice sustainable concept one decade ago. In Indonesia, it is this kind of awareness needs to be raised.

GAMBAR

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Thank you KaIND, a small-medium scale business that collaborated with fashion designers from Allegra Jane since 2018 to introduce and give insights about the existence of the hand woven fabrics and natural dyes from Pasuruan as a part of sustainable fashion movement.

After that, Allegra Jane's designers got an opportunity to learn how to develop this type of woven cloths from fabricating fibers until producing woven silk out of them. In Indonesia, the program to empower eri silkworm farmers was a breakthrough. Thank you Carla Van Lunn a fashion industry player in Brisbane, Australia who has informed me about the situation and interest of the Australian fashion market. Also thank you Abigail Rebecca Fincham in Sydney who has shared profound insights about sustainable fashion and textile industry in Australia.

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