

Circular Business Models in the Indonesian Fashion Industry: Opportunities & Challenges

Final Report

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Abstract

The circular economy has gained considerable attention in business society and has now been adapted to the fashion industry. Although it is still new, it has contributed to an increasing number of fashion companies adopting this concept to its business model. It was found that the innovation towards circular business model in Indonesia fashion industry has been increasing in this recent years. Furthermore, the perspective of opportunities and challenges from current circular business model might identify the best practice for Indonesian fashion industry. However, there was no related study found in Indonesia related to this fact. Therefore, this present study is conducted to find out the best business practices of the circular fashion businesses in Indonesia by identifying the challenges and the opportunities when adopting the circular business model. This study aims to understand the potential challenges and opportunities that arise when adopting circular business model in Indonesian fashion industry. Interviews was used to uncover what founders or entrepreneurs have in mind related to opportunities and challenges that they encounter. The data were analyzed using thematic analysis with the help of atlas.ti software. This research found that the main opportunities in Indonesian fashion industries include cost saving manufacturing, differentiation potential to meet low cost competition, improved margin, networking, improved customer relations & customer behavior understanding, reduced environmental impact and technological advancement. The main challenges include customer type restrictions, fashion vulnerability, lack of support from the supply network, capital tied up, technological expertise, operational risk, partner restrictions, pricing strategies and competitors. From those opportunities and challenges, the best business practices of the circular fashion business in Indonesia are collaboration, the needs of educating all the parties and the needs to protect the brands. These results prove to have high credibility and low applicability levels due to the nature of the methods and sources.

Keywords: circular economy, circular fashion, circular business model, Indonesia Fashion Industry

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1. Introduction

The Introduction section tells about the background of circular economy in fashion, explaining the recent development of the concept and need for study. Afterwards, the objective, research questions and followed by research design & framework will be discussed.

1.1 Background

Waste in the fashion industry grows at a rapid pace, impacting our environment. Despite being recycled, the majority of clothing and textile waste still winds up in landfills (Kate Fletcher, 2008). Social media and fashion trends play a role in this phenomenon; it is expected to stimulate overconsumption. Saravanan (2016) in their study stated that the current fashion industry is heavily influenced by social media and fashion trends. Pookulangara & Shephard (2013) found that customers tend to buy fashion products beyond what they need and this activity creates excessive fashion waste.

Several concerns have been raised regarding this situation. One of them is stated by Bhardwaj & Fairhurst (2010). They argue that the sudden change in the fashion industry, coupled with environmental problems, will create demands among conscious customer regarding of how they are sourcing the materials, supplies and design. It implies that all stakeholders need to widen and restructure their research to match the current fashion industry. To date, circular economy is arguably a possible solution to that matter. Circular economy can create a system that makes the products and materials are having a long life, and also maximizing their reuse, refurbishment, remanufacturing and recycling.

Since the introduction of the concept by MacArthur (2013), the circular economy has gained considerable attention in business society. According to van Ogtrop (2016) several disruptive start-ups and well-known companies have been shown to have at least one significant circular economy element in their new business model (Prioritize, Preserve & extend, Use, Rethink, Design, Incorporate, and Collaborate). These new features deliver an environmental benefit by reducing waste, increasing the effectiveness, inspiring the making of better products, and reducing the surplus created by overconsumption and overproduction (Botsman & Rogers, 2011). Although the circular economy system in the fashion industry is still very new, it should not be ignored. The circular economy has contributed to an increasing number of fashion companies adopting this new business model. Although several kinds of literatures have already mentioned about the circular economy and related economic systems in developed economies, the information regarding the development of this newly adopted system in the emerging economies is still lacking.

While several companies that practice circular fashion already existed in the developed country, some developing countries have shown signs of this movement too. Accenture (2017) in the trend report Future of Sustainable Fashion especially reveals that Indonesian fashion future pays great attention towards sustainability in fashion. Jakarta Fashion Week (2016) acclaimed to have Indonesian Fashion Forward Program, which intend to discover the future of fashion that values creativity, commerce and environment in equal portion. At the same time, entrepreneurs have already moved forward to create more sustainable fashion industry. Some examples of the circular business model in Indonesia are ethical & sustainable designers, fashion-sharing, and second-hand retailers.

1.2 Need for Study

While some studies exist in the sustainable fashion industry, very few studies have been done on the circular economy business model that supports this industry. Studies that explore business models in the fashion industry typically focus on only one particular type of business model, such as retail industry in general (Gelbmann & Hammerl, 2015; Henninger, 2015; Lueg & Pedersen, 2015; Niinimäki, 2013), second-hand clothing (Chan, Choi, & Lok, 2015; Han, 2013), Fashion sharing (Batista, 2013; Bovone, 2016; Eisenmann & Winig, 2011; Owyang, Tran, & Silva, 2013; Pedersen & Netter, 2015; Schor & Fitzmaurice, 2015), fast fashion (Hill & Lee, 2015; Jang, Ko, Chun, & Lee, 2012; Joy, Jr, Venkatesh, & Wang, 2012; Kim, Choo, & Yoon, 2013; Li, Zhao, Shi, & Li, 2014; McNeill & Moore, 2015; Turker & Altuntas, 2014) and Slow fashion (Cataldi, Dickson, & Grover, 2010; Clark, 2008; Ertekin & Atik, 2015;

Fletcher, 2010; Johansson, 2010; Jung & Jin, 2014). Fletcher (2008) defines fast fashion as low-cost clothing that matches the current trends that encourages disposability. Meanwhile, the term “slow fashion” is commonly known as fashion products and brands that have durable, long lasting, or classic design (Fletcher, 2010). Hence, to date, very few researches have been done on how companies can innovate on an existing business model to support a circular fashion strategy, especially in emerging economies.

Based on the previous argument, Edmondson & McManus (2007) identify that newly formed research fields have distinctive characteristics, such as research question using open-ended inquiry about a phenomenon; data collection in qualitative research; pattern identification as the goal of the analysis; data analysis method using thematic content analysis coding, and creating a suggestive theory as the theoretical contribution. Thus, this research will be constructed accordingly.

Furthermore, it is very likely that innovation towards the circular business model in emerging economies could promote circular economy, while at the same time encountered by opportunities and challenges. Aqmalia & Farida (2014) found that consumers in Indonesia have a high level of impulsive buying behavior. Sugih & Soekarno (2015), in their study, mentioned that the fashion industry is an up-and-coming sector to look at in Indonesia. Furthermore, they describe that consumption characteristic that keeps growing become a positive drive for the entrepreneurs to establish the fashion business. Pedersen & Netter (2015) found that circular fashion business remains a niche activity; they stated the circular economy approach will affect their consumptive behavior. Lewandowski & Mateusz (2016), in their research when evaluating the circular business model, pointed out that since the practice of circular business model is still new, the perspective of opportunities and challenges from current circular business model might identify the best practice for fashion business in the future.

1.3 Objective and Research Question

The objective of this study is to find out about the best business practices of the circular fashion businesses in Indonesia by identifying the challenges and the opportunities when adopting circular economy business model in Indonesian Fashion Industry. Thus, the general research question of this study is:

What are the potential challenges and opportunities that may arise when adopting the circular business model in Indonesian Fashion Industry?

To answer this general research question, the following specific research questions (SRQ) need to be answered; the words in the brackets show in what chapter and research phase that particular questions will be answered: (1) What are the different theoretical frameworks for understanding the circular business model? [Literature Review-Theoretical Phase] (2) Which fashion companies in Indonesia can be used to analyze the circular business model based on the circular business model framework? [Methodology and Results - Empirical Phase] (3) What are the different circular business models in the Indonesian Fashion Industry? [Discussion - Analysis Phase] (4) What are the challenges and opportunities of circular fashion businesses in Indonesia based on the selected study cases? [Discussion - Analysis Phase].

1.4 Research Design & Framework

To answer the research questions, the case study will be done. In this study, a case study is described as a way to answer the research question by studying multiple circular fashion businesses in Indonesia.

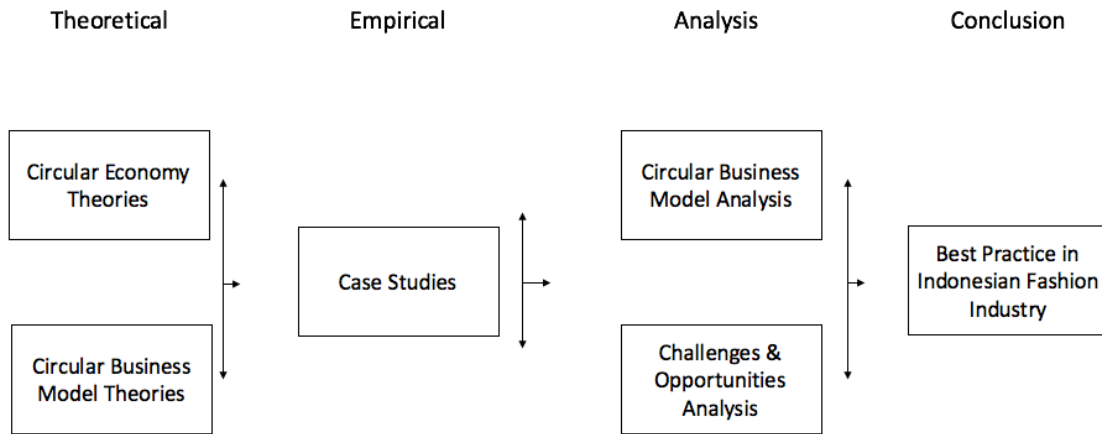


Figure 1. The Research Framework

The research framework that is used in this research is divided into four different phases, namely the theoretical, empirical, analysis, and conclusion respectively, as illustrated in figure 1; the arrows in figure 1 represent the sequence of this research from the start to the end. The theoretical phase consists of the literature review of the circular economy and circular business model theoretical frameworks. Afterwards, the empirical phase would cover the process of selecting and collecting data from different case studies that are relevant to this research and would be further explained in the methodology section. Subsequently, the analysis phase would cover the analysis of the possible circular business model and potential challenges and opportunities, using the collected case studies. Lastly, the conclusion phase sums up the results of the best practice of the circular fashion business to implement in Indonesia.

2. Literature Review

To answer the question “*What are the different theoretical frameworks for understanding circular business model*”, the literature review covers the existing theoretical frameworks of two main concepts, namely circular economy and circular business model. This literature review will begin with finding prior development and concepts done within circular economy that will explain about the role of circular economy in the business model. Next, the review will explain about business model in general and circular business models in particular, followed by the challenges and opportunities that happen when adopting circular business. The chapter ends by answering specific research questions logically represented by the conceptual framework.

2.1 Circular Economy

In this section, the concepts, trends, and backgrounds of the circular economy will be discussed. Subsequently, the development from the circular economy to the circular fashion concept will also be elaborated.

Circular Economy in General

Circular economy is a multifaceted concept that could be studied as a tool for the researcher to reduce society impacts on the environment. This circular economy concept was first proposed by (D. W. (David W. Pearce & Turner, 1990). They stated that traditional economy is developed only to have a linear cycle. Then, years after, succeeding the previous concepts through many developments, Ellen MacArthur in 2013 derived a new concept of circular economy. It is now defined as a regenerative and restorative economy by design, which aims to retain as much value as possible on the products, services, parts and materials with minimal negative impact; emphasized by a transition to a renewable energy sources, the circular model builds economic, natural and social capital (MacArthur, 2013).

To make things easier, the circular economy could be identified with several principles. The principles are to design out waste (reducing waste by designing the products to fit the biological and technical material cycle), to build resilience through diversity (the systems build on features such as versatility, modularity, and adaptability to make the the system become less vulnerable to external threats), to use renewable energy sources in a closed-loop system (harnessing renewable energy will be the fundamental goal for manufacturing process), to think systematically (inspired by the living systems, where all the components in the cycle is optimized), and to consider waste as food (technologically and biologically based commodities should be recycled through economic system before they end up in a landfill).

In this economic system, the value is produced using the most efficient achievable cycle. Especially for the technical cycle; product maintenance and repairing are parts of achieving the highest value. After that, the steps are: redistributing and reusing loop, followed by remanufacturing and refurbishing loop, and the last step is recycling loop. It is also important to know that (CIRAIG, 2015) stated that the social dimension information regarding this concept remains lacking. Figure 2 demonstrates the future of Circular Economy created by Ellen MacArthur Foundation.

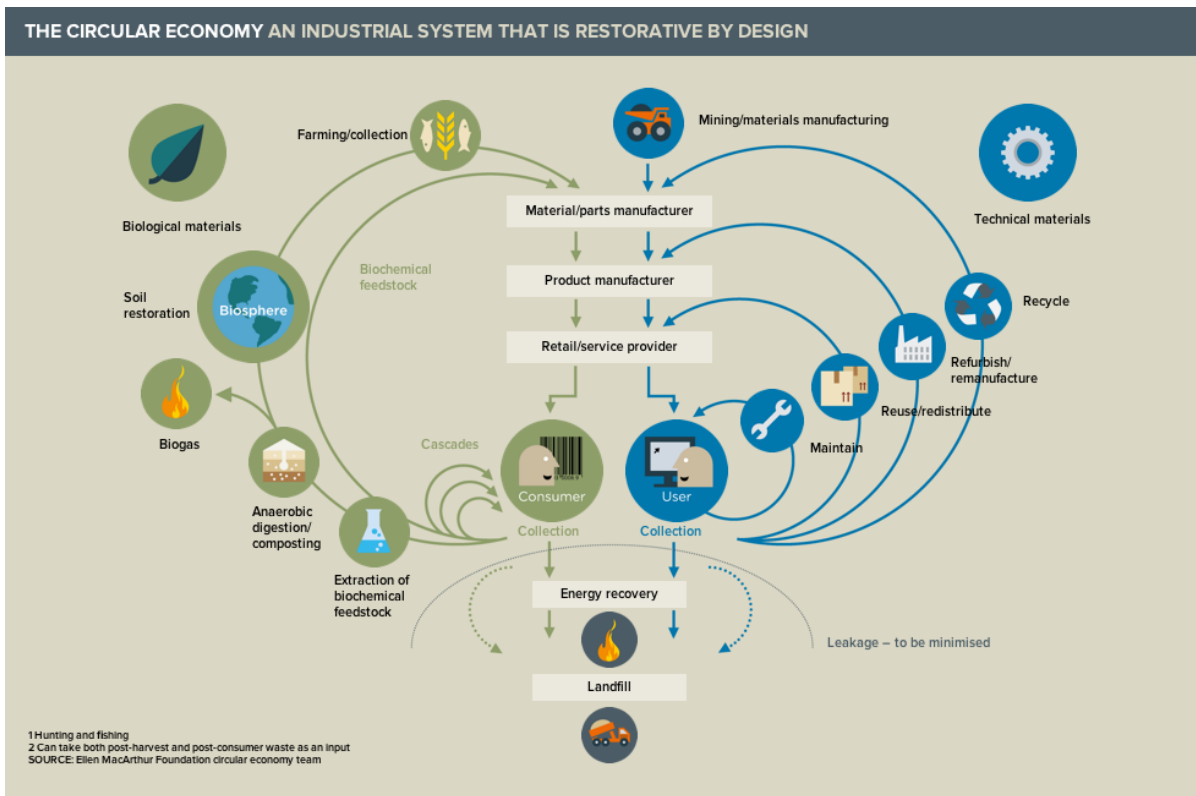


Figure 2. Butterfly model of circular economy. Source: (MacArthur, 2013)

Since it concerns the entire systems, it is a necessity for the circular economy to be implemented at various stages to function as envisioned. Consequently, collaboration amongst authority, company and private actors are needed. While it is logical for the circular economy to have some prospects, this situation could additionally generate multi-level problems and challenges.

Meanwhile, some global legislatures have considered and adopted multi versions of circular economy. Until now, China is the only nation that has implemented Circular Economy as a regulation. In their unique 'harmonious society' perspective, China implements it as a large-scale industrial ecology. In Europe, a Circular Economy action plan was proposed in 2015 and recently, it is followed by Circular Economy Stakeholder Conference which creates the European Circular Economy Stakeholder Platform. This platform will be the network of network to gather knowledge in the circular economy among the European members, going beyond sectorial activities and highlighting the opportunities and challenges within the circular economy.

The term Circular Fashion was first introduced in 2014. At that time, the concepts of sustainable fashion and circular economy were finally fused together. According to Anna Brismar (2017) 'Circular Fashion' can be defined as "clothes, shoes or accessories that are designed, sourced, produced, and provided with the intention to be used and to be circulated conscientiously and efficiently in society for as long as possible in their most beneficial form, and at the end, will return safely to the environment when they have no use anymore."

2.2 Circular Business Model (CBM)

While studying circular economy as a concept, the researcher must identify the distinctive characteristics of circular economy. MacArthur (2013) identifies five main principles of the circular economy, namely, designing out waste; building resilience through diversity; relying on energy from renewable resources; thinking in systems, and considering waste as food. Based the principles proposed by MacArthur, Lovins & Latessa (2013) argue that the implementation and transformation towards a circular economy are a barrier for its wide distribution. Accordingly, companies must find ways to embrace the circular economy.

(Chesbrough, 2009)states that the obstacles to change the business model are real. He implies that companies need to innovate on the business model while maintaining the existing business model until the newly developed one is ready to take over.

Business Model in General

So far, there are multiple theories about business model (see table 1.), namely those by Timmers (1998), Amit & Zott (2001), Magretta (2002), Morris, Schindehutte, & Allen (2005), Johnson, Christensen, & Kagermann (2008), and Osterwalder, Pigneur, Clark, & Smith (2010). But the latter one, a theory by Osterwalder & Pigneur (2010) describes the business model concept by creating a framework for understanding and developing business models named business model canvas. This framework has been accepted and used universally by experts in the business world. Different approaches have been recommended to develop the Business Model Canvas (Antikainen & Valkokari, 2016; Mentink, 2014). However, this business model canvas is not suited for addressing innovative business model for a circular economy because the practicality of this framework depends on its relative simplicity and flexibility.

Source	Definition
Timmers (1998)	“Architecture of the product, service, and information flows.”
Amit & Zott (2001)	“The content, structure, and governance of transactions designed to create value through the exploitation of business opportunities.”
Magretta (2002)	“Stories that explain how enterprise work.”
Morris et al. (2005)	“Concise representation of how an interrelated set of decision variables in the areas of ventures strategy, architecture, and economics are addressed to create sustainable competitive advantage in defined markets.”
Johnson et al. (2008)	“Consist of four interlocking elements that taken together, create, and deliver value.”
Osterwalder & Pigneur (2010)	“The rationale of how an organization creates, delivers and captures value.”

Table 1. Business Model Definition

Relating these concepts, the author defines the business model as an organization consisting of four interrelated dimensions (value proposition, customer segments, channels, and cost/revenue structure) that collaborate to create, capture, and deliver value. The writer argues that four interrelated dimensions in business models could simplify and help the writer to make clear interpretation of each companies' business models. Thus, those elements allow the researcher to analyze and compare the different business models in the Indonesian fashion industry.

1. Value Proposition - it defines what the company can offer to the customers (products and services) and describes how it accommodates to its target customers' needs.
2. Customer Segments - it focusses on who the target customers are (which ones are relevant for the business and which ones will not be addressed), and how they interact with the company.
3. Channels - it determines how the company communicates with and reaches its customers to deliver its value proposition and the resources used in this delivery.
4. Cost/Revenue Structure - it defines how the company captures value. It includes aspects such as cost structures and revenue-generating mechanisms

Circular Business Model

A specific example of the conceptual frameworks by Stubbs & Cocklin (2008) exists in the literature related to circular business, whereas a case study-based conceptualization of a circular business model involving two types of motives is established; a structural and a cultural ones. There are several characteristics explained in each category, which are: economic, environmental, social, and holistic characteristics.

Stubbs & Cocklin (2008), in their structural motive, explain that each characteristic is described as follows: economic characteristics is seen as an outer body assuming three-ways implementation: lobbying for transformations of taxation system, creating legislature to support the sustainability, and keeping its capital local. Environmental characteristics' examples are a threefold policy (offsets, sustainable, restorative), a closed-loop system, an application of service model, and a work in industrial ecosystems and stakeholder networks; Furthermore, they also explain that, the social characteristics' examples are understanding stakeholders' needs and expectations and also educating and consulting stakeholders. Holistic characteristics can be seen in cooperation and collaboration, triple bottom line approach to performance, implementing demand-driven model, and adapting organization to sustainability.

Then, for the cultural motive, they describe that each characteristic is explained as follows: economic characteristics is defined as a consideration of the profit as a mean to do a higher purpose instead as an end, which is also a reason for shareholders to invest. Environmental characteristics are about treating nature as a stakeholder. Social characteristics can be seen in 'balancing stakeholders' expectations, sharing resources among stakeholders, and building relationships. Holistic characteristics are portrayed in focusing on medium to long-term effects, and on reducing consumption

Several organizations have proposed sets of the circular business models which portray the circular economy concept, such as WRAP (2012) innovative business models map; Accenture (2014) Circular Advantage; IMSA (2015) Circular Business Model Scan; Forum for the Future (2016) The Circular Economy Business Model Toolkit; and the latest Achterberg, Hinfelaar, & Bocken (2016) Circular Business with the Value Hill.

Accenture offers a mixture of five types of business models for the circular economy approach. Some of their business model types contain two or more very different models, and the result is, some of their business model is overlapping. For example, their 'Product Life Extension' business model involves remanufacturing and repairing concept. Forum for the Future's five Circular Business Model covers some important areas such as remanufacturing, which is a business model which highlights on the material cycling, but their explanations are still lacking in other areas. IMSA classifies nineteen discrete circular business models and mostly are production methods, so, their business model does not explain about other types of business model. WRAP's type of business model is comprehensive, but, similar to above examples, it is also still lacking in many aspects. Because of that, those models mentioned above are still unable to cover certain types of business models. Lastly, Framework from Achterberg et al. provides a more general classification, while addressing on all aspects of the circular economy clearly with simple explanations. Furthermore, it also gives more insights to adapt the circular business model strategy. Thus, the model is used for this research.

Circular Business Value Hill

In their Circular Business Value Hill, Achterberg et al. (2016) state that to preserve a product's value and to sustain control of resources, several business activities have to occur. These unique business activities can be classified into four classes on the Value Hill framework, namely: Circular Design, Optimal Use, Value Recovery, and Network Organization (See: Appendix E).

Uphill: Circular Design

In the uphill or the Circular Design, all key activities that happen through the pre-use/production, design, and distribution stage of a product are linked, and those activities are optimized. The activities are placed on the upward slope of the Value Hill and are concentrated on extending the use phase (e.g. product longevity), accounting for end-of-life suitability (e.g.

modularity), minimizing resource-intensiveness and re-using existing products, components or materials. The circular business model that corresponds with the circular design are product design, circular materials, classic long life, and encourage sufficiency.

Tophill: Optimal Use

The tophill or the Optimal Use is related to the in-use stage of a product. Businesses using this model are trying to optimize the use of their product by offering services or add-ons to lengthen the lifetime of a product or offering ways to increase the productivity of a product. This business model is positioned on top of the Value Hill. In this model, the businesses generate packages of products and services with better value when they are combined compared to when they are alone, and provide better control for the businesses' assets. The circular business models that correspond with optimal use are a product as a service, life extension, sharing platforms, sell and buyback, and repair & maintenance service.

Downhill: Value Recovery

The downhill or the Value Recovery is related to the post-use stage of a product. This model creates revenue by capturing the value from used products or waste products. Value Recovery involves using recollected materials, offering refurbished products, selling second hand products, and enabling recycling and remanufacturing. The circular business model that corresponds to value recovery are second hand seller, refurbisher, recycler, recaptured material and supplier.

Network Organization

The last one, the Network Organization contains activities that associate the management and coordination of circular value networks. This involves coordination and management of resource flows, optimization of the incentives and other supporting activities in a circular network. The circular business model that corresponds with the network organization are value management, process design, tracing facility and recovery provider.

2.3 Opportunities & Challenges in Circular Business

In order to identify both opportunities that drive the entrepreneurs to adopt circular business models and potential challenges that prevent them from adopting circular business models, a literature study has been conducted. Based on the review, opportunities are characterized by cost savings, company culture, low cost competition, networking, enhanced customer relations, improved customer behavior understanding, improved margins, reduced environmental impact and increased brand protection. Meanwhile, challenges are described as company's environmental culture, lack of capital, lack of government's support/effective legislation, lack of information, administrative burden, lack of technical and technological know-how, and lack of support from the supply network. The explanations are as follows:

Opportunities

It should be noted that there are several potential opportunities when the circular business model is adapted. Based on the literature, some examples of the opportunities are explained below.

Cost Savings in Manufacturing

Stahel (2010) identifies that circular business would reduce the expense of manufacturing. The companies which run the circular business model will operate their business efficiently which means there will be cost saving and reduced energy and material consumption.

Potential to Meet Low Cost Competition

The implementation of the circular business model has some potential to have low cost competition (Besch, Mont, & Lindhqvist, 2004). Differentiation will be the key as it could facilitate the chance to escape the price war between conventional companies.

Networking

Rizos et al.,(2016) mentioned networking as the enabler of the circular business. The availability of the network which contains a group striving for sustainability and sustainable supply chain partnership will help the growth of the company.

Enhanced Customer Relations

There are opportunities for the circular business owner to develop a closer relation with customers (Walsh, 2010). The convenience of the circular business itself will help the consumers to know to value the product and reduce their consumption.

Improved Customer Behavior Understanding

Firnkorner & Müller (2012) noted improved customer behavior understanding as one of the opportunities to engage in the circular business model. In their studies, they found that eventually the practice of circular business, while contributes to the good for the people, will become popular too especially amongst young adult.

Improved Margins

Circular business model practice allows for a higher profit margin (Pearce, 2009). This practice includes recycling, refurbishing or remanufacturing the products. The product that uses circular concept will retain more of their original value. Thus, a company will eliminate the costs that will be gained if they choose to do manufacturing process from scratch.

Reduced Environmental Impact

Mont (2004) noted that maintenance, upgrading, remanufacturing and other circular business practice prolong a product's life. Thus, it helps to reduce product turnover at the end. In some cases, substituting service for products can also be considered as a way to improve the sustainability.

Increased Brand Protection

Seitz (2007) explained that brand protection is one of the reasons for engaging in circular business. She argues that the market share will be saved by doing the circular business model as it will make sure the brand perception will be better in customers' eyes.

Challenges

In addition to the potential opportunities, there are also a number of challenges identified when applying Circular Business Model. Each of the findings is explained below.

Customer Type Restrictions

Only certain types of customers are suitable for sustainable products buyers (Pearce, 2009). Six characteristics of customer that are suitable for sustainable products are summarized as follows: customers who need to preserve a specific product for their processes; want to avoid reapproving a product; make low utilization of new equipment and are price sensitive; want to continue using a discontinued product; want to extend the life of a used product; are environmentally interested. These customer characteristics may overlap and some types of sustainable product are more suitable for some certain types of customer.

Fashion Vulnerability

Mont, Dalhammar, & Jacobsson (2006) state that when adopting a circular business model, inability to react to changes in fashion is another potential issue. In industries where

there are many consumers, visual attributes of the product will partly contribute to the attractiveness of an offer, and thus, sustainable products will increase demands on product design for the timelessness of the product. If companies unable to answer this barrier, it is likely that consumers will try to switch to another companies or service provider.

Lack of support from the Supply Network

Rizos et al. (2016) reveal that from a supply perspective, in many cases, one of the major challenges is the absence of sustainable suppliers for specific inputs that the company needs in the production process of a product or a service. Mostly, in the supply chain, markets for these inputs are absent or insufficiently developed. Additionally, some businesses report difficulties in implementing a green solution since they are locked in at the bottom of the supply chain or because they are part of global supply chains sectors with correlated high environmental impact.

Capital Tied Up

Financial risk will be transferred from the customer to the producer if the company offers services to be rented out rather than to be sold (Mont et al. 2006; Besch, 2005). Using a long term contract with several years of time span (Besch, 2005) is a possible solution to this, but this might reduce the attractiveness of the offer to certain types of customer. Some companies report difficulties in attracting the necessary funding from traditional banks to implement more sustainable measures within the company, to invest in the development of new green goods and services, or to finance the purchase of resource-efficient equipment (Rizos et al., 2016).

Risk of Cannibalization

The introduction of a Circular Business Model may lead to decreased sales if the new, longer lasting products reduce the sales of the previous products (Guiltinan, 2009; Michaud & Llerena, 2010).

Requires Technological Expertise

Expertise and knowledge of the product are required in making sustainable products since the product is to be created to be better in many aspects. Lack of technological expertise includes a gap in employee skills and a lack of knowledgeable people in matters related to circular economy business practices (Rizos et al., 2016).

Operational Risk

Kuo, Ma, Huang, Hu, & Huang (2010) stated that liability and operational risk of the firm would increase when the companies tried to adapt the circular business model. This challenge happens regardless of which type of sustainable product or service companies trying to provide.

Lack of Supporting Regulation

Lack of support from related policy, laws and regulations is a major barrier to create a circular business model (Kuo et al., 2010). The tendency for taxes to be levied on labor rather than on raw materials will affect the Circular Business Models profoundly (Stahel, 2010). Furthermore, lack of government support in the effective legislation and the provision from local authorities are also identified as the foremost barrier towards the circular economy (Rizos et al., 2016)

Partner Restrictions

When adapting the circular business model, there must be compatibilities between the circular business model and the firms' business model. Thus, challenges might arise in creating the required understanding and giving incentives for key partners, such as retailers or service partners (Mont et al., 2006). Lack of channel control is one of the most commonly

mentioned critical barrier to increasing service content of a product offering, such as a move towards a product service offering.

2.4 Conceptual Framework

Based on the previously discussed literature, the following conceptual framework (figure 3) is constructed. The conceptual framework principally states that the adaptation of the Circular Business Model in Indonesian Fashion Industry is created by two motives, structural and cultural. Those two motives affect the creation of the circular business model. Then, the application of the Circular Business Model creates opportunities and challenges. Those opportunities and challenges contribute to the series of practices that the entrepreneurs are going to take under the assumption that the best practice is selected based on whether the challenges can be effectively navigated and the opportunities can be effectively utilized. Although the selection of the best practice or the evaluation of the business model can be identified by challenges, opportunities and profitability of the company, the challenges and the opportunities are the main focus of this research. Thus, the profitability is excluded from the conceptual framework.

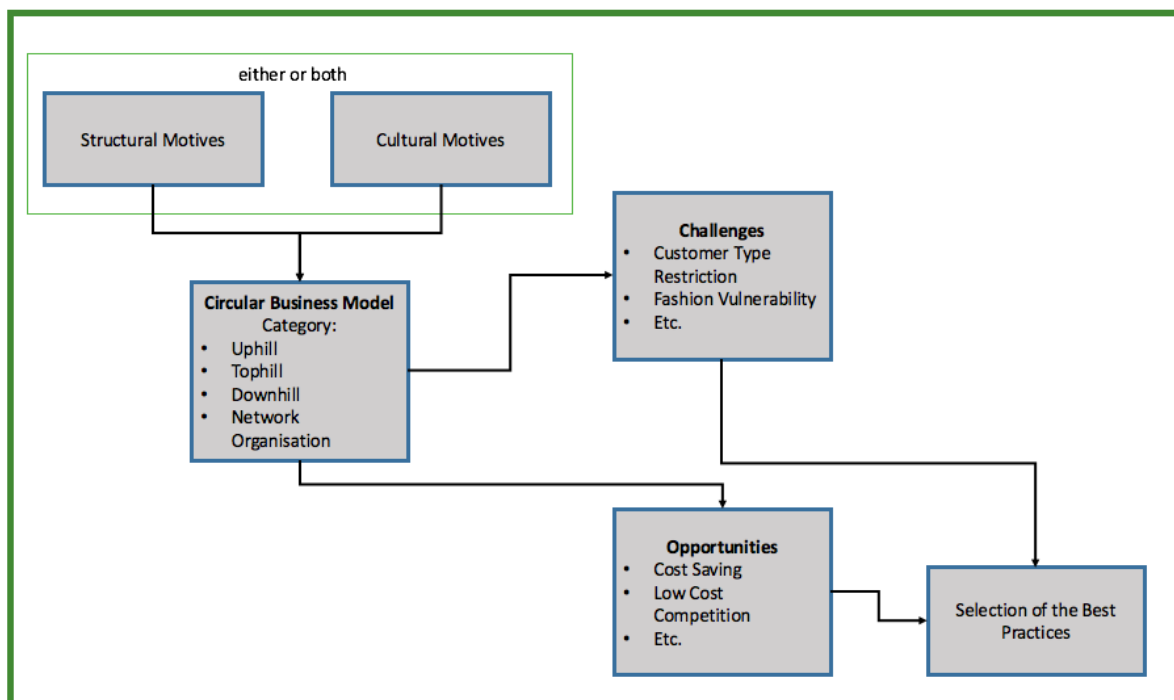


Figure 3. Conceptual Framework

3. Methodology

This chapter presented data collection method, including the method used for choosing the cases and two methods used to summarize and analyze the information from the selected case studies (Interview, as the primary data collection method, and content analysis, as the secondary data collection). Lastly, to close this chapter, credibility and ethics while doing this research were going to be discussed too.

3.1 Case and Data Collection

To answer the second SRQ, “Which fashion companies in Indonesia can be used to analyze the circular business model based on the circular business model framework?”, case studies have been done. Case studies were approached qualitatively in a way to find out about different types of circular business models and how they look like, as well as to discover in-depth information about the challenges and opportunities when implementing circular fashion business in Indonesia.

Case Selection

The case selection started by asking one or two Fashion Industries experts who might give some pictures regarding the situation and development of circular fashion business in Indonesia. Furthermore, additional cases were added by purposive sampling technique or widely known as qualitative sampling technique. Qualitative sampling was generally used by scholars in qualitative research to select units (e.g. groups, individuals, or institutions) with certain experiences for specific purposes (Teddlie & Yu, 2007). Maxwell (1997) further define it as a type of sampling in which specific situations, individuals, organizations, or events are purposely selected for the essential information they can deliver that cannot be received from other samples. However, the selection of case studies, while still bound to the circular business model criteria according to the literature studies, were still openly accepted another type of circular business model that had never been identified in the literature as inductive approach. The collection of the cases might be influenced by the selection of previous cases (snowball method).

Data Collection

When a case was selected and the interviewee was willing to give information, data collection would be done by doing semi-structured face to face interviews (primary data collection). The interview (Appendix A.) would be constructed based on the elements of the circular business model (cf. Chapter 2.2) and opportunities & challenges (cf. Chapter 2.3). However, face to face interview had its own disadvantages and advantages. While it was costly and required a lot of time, face to face interviews might enable the interviewer to establish personal interaction and trust which could lead to higher reliability. Furthermore, it was also easier to control the pace of the interview, to record the data and to observe the nonverbal behavior of the interviewee. Moreover, semi structured interviews would affect the way the questions were asked. The interviewers would not only follow a set of open questions but also would open the possibilities of further additional questions specific to each case.

In order to gain higher reliability result, the interviewees had to be the founders, CEOs, or the managers of the company, since it is the only way to gather information about the business model and challenges & opportunities when adopting the circular fashion business. The number of the interviews would be contingent on the response rate and availability of the interviewees.

The researcher started out by discussing the research with two industry experts, and the industry experts gave some recommendations to contact several potential companies. Other than that, the researcher also identified the potential companies through the internet, social media, events and using snowball method from the previous sample. The author contacted the eight companies that were referred by the experts and relatives (agreed to be interviewed). Aside from that the researcher also contacted other potential companies by different means (e.g. Instagram, WhatsApp, LinkedIn, email, Facebook, company website)

and in total, the researcher sent out 27 messages, although only six of those messages were replied, and only two companies agreed to meet for an interview. The choice of the interview method depended on the researcher and the participants' limited resources. Since two founders of the companies were located overseas, the researcher was not able to meet them in person. Thus, the interview was conducted using Skype. On the other hand, the author was able to meet eight companies in person by travelling to their locations (in total eleven face-to-face interviews). Table 2 summarizes the type and duration of the interviews.

Date	Interviewees	Type of Interview
11/11	Shita, Co-Founder of Jalin	Face-to-face interview, circa 51 minutes
11/11	Avina Fauziah, Co-Founder of Jalin	Face-to-face interview, circa 43 minutes
11/11	Triana Hapsari, Co-Founder of Jalin	Face-to-face interview, circa 56 minutes
13/11	Stephanie Chandra, Founder & CEO of Rupahaus	Skype Interview, circa 93 minutes
15/11	Ella Trimurti, Co-Founder of Aest Fabric	Face-to-face interview, circa 35 minutes
15/11	Novi Kartadilaga, Co-Founder of Aest Fabric	Face-to-face interview, circa 56 minutes
17/11	Marcella Margareth, Founder & CEO of Semilir	Face-to-face interview, circa 41 minutes
20/11	Kornelis Ndakapang, Founder & CEO of Tenun Sumba	Face-to-face interview, circa 81 minutes
28/11	Elsana Bakti Nugraha, Founder & CEO of Svaloka	Face-to-face interview, circa 83 minutes
30/11	Putri Wati, Founder & CEO of Batik Warna Alam Si Putri	Face-to-face interview, circa 72 minutes
30/11	Fauzi Bowo, Founder & CEO of Batik Gemawang	Face-to-face interview, circa 84 minutes
1/12	Talisa Dwiyani, Co-Founder of Osem	Skype Interview, circa 87 minutes
7/12	Gemayang Sura, Founder & CEO of Von Gems	Face-to-face interview, circa 43 minutes

Table 2. Interview Types and durations.

The data showed some significant difference in the interview durations. Although the duration of the interviews itself did not show any coherency to the data quality (do not indicate any issues for the data). For the type of interviews, the researcher identified that face-to-face interview was better suited for collecting the data, while skype interview had some limitations into it like the nature of the interaction with the interviewee. Additionally, the writer also able to meet the other co-founder of Osem and had interviewed them, but they choose to use the interview result from one of their co-founder as their only representative.

As of the limitation of the case study method, triangulation of data source was required. Additional data and other possible respondents were used to increase the validity and credibility of the interview results. Organizational records from the internet and other resources were added as the secondary data to compare the interview results. Since the case studies gathered were still not enough to provide business models examples required in this study, the author used content analysis as the secondary data collection method to add other types of business models which were still lacking in the data gathered from interviews. Content analysis was a general term for some strategies used to analyze text in qualitative research method.

Unfortunately, the author of the research did not able to interview some of the circular business model type. For this reason, the writer added some companies using content analysis to be able to analyze the business model type more competently. The author chose

to use convenience sampling as a way to make the data more representative and the convenient accessibility to the researcher. Table 3 shows the companies and the source type.

Companies Name	Source Type	Reference
BellsBee	Companies Website & News Article	(Bellsbee, n.d.)
TheDressCodes	Companies Website & News Article	(TheDresscodes, n.d.)
TinkerLust	Companies Website & News Article	(Tinkerlust, n.d.)
Bebelian	Companies Website & News Article	(Bebelian, n.d.)
Ziptango	Companies Website & News Article	(Ziptango, n.d.)
XXLab	News Article	(XXLab, n.d.)
Second Chance Bag	Companies Website & News Article	(SecondChance, n.d.)

Table 3. Companies for Content Analysis

With the addition of seven companies from the content analysis, seventeen companies were analyzed in the circular business model types. While BellsBee and TheDressCodes added information for the optimal use classification, Tinkerlust, Bebelian, Ziptango, XXLab and Second Chance Bag added information to the value recovery classification.

3.2 Atlas.ti

Because the collected data was complex, atlas.ti was used to do the qualitative analysis. atlas.ti is part of the Computer-Aided Qualitative Data Analysis Software that aids the researcher to analyze qualitative data scientifically. This software supports the organization of a large amount of texts, codes, and memos in an easier and a more efficient way than manual work. In addition, it also provides several features which help the researcher to predict and to investigate the relationships among those data. Thus the phenomenon, relations and important findings from unstructured, complex, and specific data could be found. The use of the coding and other things from atlas.ti will be added in the appendix B.

3.3 Thematic Analysis

Braun & Clarke (2006) describe thematic analysis as an independent qualitative descriptive approach for identifying, analyzing and reporting patterns within data. It has also been presented as a qualitative descriptive method that offers essential skills for researchers to conduct many other forms of qualitative analysis. Thematic analysis provides a purely qualitative, detailed, and nuanced account of data (Braun & Clarke, 2006). It is likely that the author of this study may get some useful findings in data collected by interviews in an attempt to answer the general research question using the conceptual framework. The steps for the thematic analysis are as follows:

- Familiarization of all data collected.
This stage was done by writing down all the conversations recorded during the interviews. Then it was continued by re-listening and re-reading the transcripts together to get all the data cross-checked. Several terms were revised to make sure that the terms would have the same meaning even after the translation. This phase helped the author to get more familiar and to get sense of the data as whole.
- Identifying a thematic framework.
This phase was done by writing all concepts coming up from the whole interviews and arranging them into themes. All data in this research could be organized into two main categories.
 - Circular business model types in Indonesian fashion industry
 - The opportunities and challenges for the circular business in Indonesian fashion industry
- Indexing and sorting out quotes.
In this phase, all quotes within the transcripts were coded in a certain way according to three main categories from the previous phase. The list of coding is attached as Appendix XX. In this research, the third phase was done using Atlas.ti. The data were coded based on the perspective of each company founders, the type of motives (i.e. cultural or structural). Going to the next coding stage, the quotes were then coded

based on which category in circular business model each company placed into. The last one, the quotes were coded based on which opportunities or challenges in adopting circular business model each company face.

- Classifying under the main themes.
In this phase, the transcripts were broken into several parts according to the themes. All quotes related to the same theme were put together.
- Integrating and interpreting all the finding.
Finally, all the findings were added to the report. This phase enabled the researcher to see the relations between quotes and codes as well as to do the pattern identification.

3.4 Credibility and Ethics

To ensure the quality of the research, the author had to ensure the credibility of the research findings by particularly focusing on two factors: reliability and validity (Saunders, Lewis, & Thornhill, 2009).

Reliability referred to the degree in which the data collection or analysis procedures would produce consistent findings (Saunders et al., 2009), the author had to attempted to work as transparent as possible and to document all procedures done when conducting the research. Thus, if other researchers were to follow our process description, most likely, they would be able to get the same findings and results. But, the four threats to reliability, namely the participants' error and bias, as well as the observer's error and bias might alter the results.

Saunders et al. (2009) defined validity as whether the research questions could be answered solidly and representatively by the results of the study. To ensure validity, triangulation of data sources was used when collecting data for the analysis part. However, it was rather hard to obtain 'constructed validity', since the target groups were mostly founders of the circular business in fashion industry, and in most of the cases obtained, the founder of the companies were one or only a one-man company. Nevertheless, the researcher had to confirm the interview results and ensure the information written were true.

Another thing to consider when doing the research was the ethical issues. Research ethics was important, where the researcher had to write, analyze, collect & store data in a responsible way. Consequently, when gaining access to the participants, the researcher had to explain the purpose of the research project, stating how each interviewee would be able to help to improve the study, as well as assuring about confidentiality and anonymity (Saunders et. al., 2009)

4. Results & Discussion

In this part, the results of this study will be presented and discussed. The main objectives of this section are to answer the third SRQ, "What are the different circular business models in Indonesian Fashion Industry?" and the fourth SRQ, "What are the challenges and opportunities of circular fashion business in Indonesia based on selected case studies?". There are three sub-chapters presented, namely: Circular Business Model Types, Opportunities & Challenges in Circular Business Model Adaptation, and Practice in Circular Business.

4.1 Circular Business Model Types

In this section, the circular business model types will be divided into two parts. The first one is the motives behind the adaptation of the circular business model, and the latter one is the circular business types according to the cases collected. Later on, the findings will be discussed.

Motives

According to the conceptual frameworks by Stubbs & Cocklin (2008) there are two types of motives involved when creating a circular business model, namely structural motives and cultural motives (elaborated in Economic, environmental, social, and holistic in each motive). When interviewees were asked to share their story on how they start the business and what motivates them to engage in circular business, there are several interesting characteristics found in this study as follows:

Structural with Economic Characteristics

Economic characteristics of the structural motive is understood as an external part of the three sided implementation such as lobbying for transformations of the taxation system, creating legislature to support the sustainability, and keeping its capital local. Stephanie Chandra, CEO and founder of Rupahaus, admitted that she wants to tell the story through the products she creates to increase the artisans' welfare.

[...] I want to help to empower the locals and to ensure the sustainability of the domestic production so that all the skills and business could be inherited to the next generations. [...] because younger generations do not see the opportunity in the local tradition and artisans' jobs [...].

Kornelis Ndakapang, a professional artisan, has been running his own local business for 20 years. He is inspired to make welfare reform in his village.

[...] In the future, hopefully, the use of this natural color can improve the welfare of the craftsmen and reduce the intervention of the middlemen who have been taking significant profits. So, in the end, the price of the products will not be overpriced, meaning that, the price can hopefully be fair, and will be beneficial to all parties involved [...].

As can be seen above, we can conclude that the founders emphasized on how their business could affect its local economics. It is important to note that they saw the unfairness to the local artisans or suppliers and they tried to work that out by giving them information or developing practices that would be beneficial to all stakeholders involved.

Structural with Environmental Characteristics

Environmental characteristics focus more on a closed-loop system and a work in industrial ecosystems and stakeholder networks. Companies such as Osem decided to engage in this new field of fashion industry. Talisa, co-founder of Osem, stated that although the terms of circular economy in Indonesia still really new, her company, in particular wants to engage in that closed loop system (see figure 4. She said,



Figure 4. Osem Products

[...] When we found out about the terms of ethical fashion and sustainable fashion, we decided to strengthen our business. [...] we do some benchmarking with other well developed brands in Europe to increase our knowledge and information about the application of Circular Economy [...] we are trying to do a closed loop system. Our used goods or waste product can be exchanged and returned by the customers, and they get discounted price for the next purchase [...]

Given this note, it is bitter to see that only a few fashion companies in Indonesia started to consider the environment as the main factor when creating the business. However, the author is still unsure whether the information barrier could be the reason why the entrepreneurs do not know about how to engage in a closed-loop industrial systems.

Structural with Social Characteristics

Social aspect plays an important role for founders to enter circular fashion business. They also need to understand about the stakeholders' needs and expectations, and also how to educate and to consult the stakeholders. Kornelis Ndakapang, CEO of Tenun Sumba also has the same reason.

[...] Initially, I was fearful because in the 1990s the government ordered to use artificial coloring. Because the price of natural coloring was very high when compared with artificial coloring. [...] Economically, I was in a difficult position, but I thought, the value of fabric from natural dyes was hereditary and ought to be preserved. They judged me and said that my business would be ruined. Now, my company is an example for the local shop around the villages. [...] the government also asked my companies to give training for other local small businesses to help them grow.

As shown above, the government's involvement in Indonesia is rather unsupportive from the environmental perspective. But with the changes in recent politics, the government has started to involve entrepreneurs when creating policy. In fact, currently, the government has involved many companies in the various industry such transportation, telecommunication, finance and technology, but unfortunately, fashion industry still excluded.

Structural with Holistic Characteristics

Holistic characteristics can be seen as the need to collaborate in the circular economy. This also includes applying the demand-driven model and adapting the company to a sustainability driven business model. Arichi, CEO of Osem stated that collaboration is the key to the future. She explained:

[...] since 2016, the market becomes very competitive. [...] we started to think that since we have the same mission, same sustainable product, same goal in empowering our environment, [...]. That is precisely why we have to collaborate because we have the same purpose. [...] it is not the right time to compete anymore. We have to cooperate, to co-create or to do an economic sharing. So we are supposed to do a sharing economy in Indonesian fashion industry [...]

In this case, collaboration played a central role, where collaboration is quintessential to achieve the goals of circular economy and sustainable business model. However, they also noted that collaboration is also necessary because they need to reduce the market competitiveness while going to achieve the higher purpose.

Cultural with Economic Characteristics

This economic characteristic can be associated with the sustainable factor, assumed from its definition: a consideration of the profit as a means to a higher purpose instead of an end. Marcella, Ceo of Semilir stated that:

[...] local products awareness is now increasing, and now many companies are starting to be brave enough to innovate. There are a lot of emerging businesses that do not do the business just to make big profits, but also to make an impact on the environment. [...]

Fauzi, the Ceo and founder of Batik Gemawang also has the same perspective:

Lots of people who make batik (Indonesian fabric) say that their motivation is to preserve the culture. [...] but for me, it's all nonsense. Economical reason must be one of the motivations to run the business. [...] if the economy could run well, then, we can also keep the culture intact [...]

As mentioned above, fashion companies emphasize on profits as one of the most important priorities. Basically, it means that business must run first before it can achieve all the goals of the companies.

Cultural with Environmental Characteristics

Sustainability is one of the main aspects why the founders and CEOs decided to engage in this business. They usually treat the environment as the stakeholder. Shita, co-founder of Jalin indicated that:

[...] that was when we realized that the environment is rich enough to provide us with resources, and thus, we thought, "why don't we make a product from nature itself, like trying to do natural dyeing (see figure. 5) [...]



Figure 5. Solar Dye Kit by Jalin

Elsana the founder and CEO of Svaloka also has the same experience.

[...]; one of my vendors has been wearing synthetic coloring from 1970. Its waste products have been contaminating its neighbors' wells. The wells have turned black because of the coloring process; the even tried to dig a new well near the contaminated well, and the black water still appeared. So it has destroyed the ecology beneath it. I have planned to produce more environmentally friendly products since the beginning due to that phenomenon [...]

Putri owner of Batik Warna Alam si Putri added:

[...] I still remember about using the chemical dyes. I was afraid because it has enormous impact on the environment if the waste products are not managed properly. If people are exposed by the chemical, it can give a fatal impact on their safety. This what makes me get more anxious and want to establish this business [...]

Overall, sustainability is one of the main motives for circular fashion company to engage in this field. Most of the entrepreneurs had a past experiences regarding this motives. They realized that and desired to use environmental friendly materials and practice.

Cultural with Social Characteristics

While the profit is one of the main goals, balancing stakeholders' expectations, sharing resources among stakeholders, and building relationships are also the reasons people start to do circular business. Fauzi, the owner of Batik Gemawang illustrates:

[...] this business was pioneered in 2006 by inviting batik artisans to teach about the basic skills in batik making here. Then, support came from related stakeholders

around the village, thus, a large group was formed to continue creating batik products that has been taught so that it can be preserved [...] Then everything continues until now. In the beginning, we started with three employees and now, the number grows to 15 people [...]

While it is shown that stakeholders help entrepreneurs and inspire them to create a circular business, it is important to assess that this practice is not well known in Indonesia. For example, the government rarely encourages entrepreneurs to participate in this kind of business, and most of the time, the stakeholders often do the opposite.

Cultural with Holistic Characteristics

The last aspect is related in how founders see medium to long-term effects of their business, and how they reduce consumption. Triana, co-founder of Jalin stated that:

[...] Because we all have background in art, we always think about the concept or to find meaning about things. [...] we also believe that so many things from nature can be shared through our products [...] With our products we want to help people to be able to relate to nature and to connect people to other people. Now, we also start to read and to find out about how the fashion world is, how we can reduce the waste by small steps, using natural dye. Small actions matter [...]

Gemayang, owner of Von Gems also added:

[...] I hope I can inspire many people by doing this business. That each person is capable of doing something without having to be afraid of thinking about the investment or the difficulties in marketing the product [...] waste products have their value too when recycled, it is a pity if they are discharged into the trash without recycling them first to capture their value.

In a word, reducing consumption by maximizing the value from the product becomes one of the reason entrepreneurs entering the circular business field. They see this as an opportunity to reduce the cost of product making. In the end, the business will run more efficiently and will gain more revenue.

Circular Business Model Types Discussion

The whole interviews are still unable to completely explain about all business model classifications through case examples gathered in Indonesia, because they still do not cover about several aspects of the business models the author wish to explain, such as: Optimal Use, Value Recovery and Network Organization. Thus, the author decided to add several additional cases to explain about those business models mentioned above. The cases will be gathered by content analysis using data found in the internet. The companies are: Tinkerlust, Belsbee, TheDressCodes, XXLab, Bebelian, ZiptaTango, and Second Chance Bag.

Circular Design

During this study, the researcher explored different circular fashion business and found out that some companies are practicing the uphill or circular design. Those companies mainly increase the product longevity, reduce the resources used in the production and they also try to re-use some existing materials

The way these types work in Indonesian fashion business is modest: they usually use environmental friendly materials (renewable resources), hand crafted products by the local artisans or local workers (source of employment for the rural sectors), vastly superior in terms of product span, and more importantly, the products are safe for workers and consumers. The companies in Indonesian fashion industries that practice this Circular Design are Jalin, Rupahaus, Tenun Sumba, Aest Fabric, Semilir, Svaloka, and Batik Warna Si Putri.

- Value Proposition

Businesses in Circular Design classifications offer authentic products that cause no unnecessary harm. Those companies also tell their customers that their products are unique and require care in every step of the production cycle as well as good partnership with the right supply chain. Companies such as Rupahaus, Tenun Sumba, Semilir, and Batik Warna Si Putri encourage their customers to be proud when wearing naturally dyed products and they also tell their customers the stories about how their products are made. Others, such as Jalin, Svaloka and Aest Fabric, allow their customers to know more about the product by providing workshops so that people who buy their product will not only receive the products but also will know how to value their product.

- Customer Segments

The target group for this circular business model classification is women in working age between 24-45 years (e.g. Jalin, Aest Fabric). However, the other companies also target a wider customer segment, where they target everyone instead of particular group (e.g. Rupahaus, Tenun Sumba, Semilir, Batik Warna Si Putri, Svaloka).

- Channels

For this business model, the online platform becomes the main channel, such as websites and social media (e.g. Jalin, Rupahaus, Semilir, Svaloka, Aest Fabric). Nevertheless, some companies also establish physical events (see figure 6) (e.g. Tenun Sumba, Jalin, Semilir, Svaloka, Batik Warna si Putri) or sell their products directly to other businesses (e.g. Batik Warna si Putri). However, the latter one helps the customers to feel the benefit and difference between the materials and the end product directly.



Figure 6. Fashion Events in Jakarta (2017)

- Cost & Revenue Structure

Some companies in this circular business model sell their products directly using website or social media, thus, they charge the clients for shipping service (e.g. Jalin, Rupahaus, Semilir, Svaloka). Also, for some companies which sell only through social media, trust is the key for their customers. The customers pay directly to the company bank account, and later on send

the transfer evidence as the booking confirmation (e.g. Jalin, Svaloka, Semilir). Some companies host or join events in different Indonesian Cities (Jakarta, Bandung, Jogjakarta, and Surabaya) and the additional cost includes the rent of the event space.

Optimal Use

The researcher only managed to interview one company within this business model classification in Indonesia. Thus, the author used content analysis to find the business model that fits the optimal use classification. The company should be offering ways to increase the productivity of the product and should have the characteristics of renting, leasing, sell and buy back, pay-per-use or performance-based business models. In this classification, the possession can continue to exist with the service provider. The goal is to support better usage and to make the best of the product's productivity.

The business found in Indonesian fashion industry within this category is straightforward, in which they usually rent a fixed number of the item (sharing platform), or it could be life extension, sell & buyback, and repair & maintenance service. The idea behind this model is that a product can be rented multiple times by different customers (e.g. Bellsbee, TheDressCodes), or the companies have the options to buy back the products they sell (e.g. Osem). This business model is still rare in Indonesian fashion industry. Thus they mainly operate in the capital of Indonesia.

- Value Proposition

The researcher discovered that there are three types of the value proposition in this category: only renting, renting & purchasing, and sell & buy back. For the first type, the customers can only borrow a product for a specific period (e.g. Bellsbee). For the second type, the customers have an option to purchase the items by the end of the rental period (e.g. TheDressCodes). The last type is the sell and buy back, in which the customers have the opportunity to sell the product back to the companies (e.g. Osem).

- Customer Segments

Companies practicing this kind of business model target men and women older than 15 years. They specifically offer the package for special occasions such as graduation, wedding, prom night etc (e.g. Bellsbee, TheDressCodes). But for others, it targets working men and women who are environmentally conscious.

- Channels

Optimal use based businesses fulfil their customers' needs through online services such as websites and social media (e.g. Bellsbee, TheDressCodes). Nonetheless, for the customer who chooses to see the product first, they can go and rent the specific items in their physical stores (e.g. Bellsbee, TheDressCodes). But for the other type of business model (buy back), they use a physical store to sell and to buyback the products (e.g. Osem).

- Cost & Revenue Structure

The author observed that the companies' source of income are mainly from the rental fee (e.g. Bellsbee, TheDressCodes). Other than that, they also try to sell some old but still functioning designer clothes that they own to decrease the inventory cost and to increase the revenue.

Value Recovery

Value recovery type business model mainly operates by capturing the value from the waste or used products. Companies which operates using this model usually offer second hand products and enable recycling and remanufacturing.

This business model is characterized by selling products which are created by waste products, or as simple as selling other people's pre loved clothes, shoes and bags. Businesses which fall under the category of value recovery are Von Gems, Batik Gemawang, Tinkerlust, Bebelian, Ziptango, XXLab, and Second Chance.

- Value Proposition

The researcher determined three type of value proposition. The first one is the company which sell recycled products or offers their products to be recycled (e.g. Von Gems, Batik Gemawang, XXLab). Next is the peer to peer market that acts as the platform for the consumers to sells their used or pre loved products. Their main goal is to provide preloved branded products for the consumers that are still in good condition (e.g. Bebelian, Ziptango, Second Chance, Tinkerlust).

- Customer Segments

Companies are practicing this kind of business model target men who are interested in the latest fashion trends with a minimum budget (e.g. Bebelian, Ziptango, Second Chance, Tinkerlust). However, some companies also target men and women who specifically loves an environmentally friendly product (e.g. Von Gems, Batik Gemawang, XXLab).

Network Organization

Network organization allows the management of information, materials and funds in one system. Network organization completes the classification as the place for value management, process design, tracing facility and recovery provider. Unfortunately, the researcher cannot do an interview or find any fashion business in Indonesia that matches this category. The example of the company outside Indonesia that practice Network Organization is Dutch aWearness. Dutch aWearness offers recyclable corporate wear for companies and organizations. This company wants to make a business that allows shared ownership throughout supply chain network by providing tracking and tracing systems that comprise all stakeholders in the supply chain network.

Discussion

Overall, companies which were interviewed by the researcher vary in their motives to engage in circular business. Most of their characteristics were combinations of cultural and structural motives. It could be said that the companies in this study showed the motives of the circular business model as written in the literature. That being said, environmental characteristics were the main reasons or the drivers for the founders to engage in this circular business. Interestingly, only a few of the founders saw the economic characteristics as the main drivers, as they saw higher purpose goal than generating revenue.

Regarding the business model (Appendix C), mostly, the companies involved in this research operate by Circular Design, followed by Value recovery and Optimal Use. It was interesting to see that there was still no company in Indonesia that could be categorized as the network organization (see Table 4). This could be interesting finding as the terms and concept of circular economy was relatively new in Indonesia.

Companies Name	Business Model Classification	Company Size
Jalin	Circular Design	1-4
Rupahaus	Circular Design	1-4
Tenun Sumba	Circular Design	20-99
Aest Fabric	Circular Design	1-4
Semilir	Circular Design	1-4
Svaloka	Circular Design	5-9
Batik Warna Si Putri	Circular Design	5-9
Osem	Optimal Use	5-9
BellsBee	Optimal Use	20-99
TheDressCodes	Optimal Use	20-99
Von Gems	Value Recovery	1-4
Batik Gemawang	Value Recovery	10-19
TinkerLust	Value Recovery	20-99
Bebelian	Value Recovery	10-19
Ziptango	Value Recovery	10-19
XXLab	Value Recovery	5-9
Second Chance Bag	Value Recovery	10-19

Table 4. Companies Classification and Size

Companies which operated in Circular Design mainly focus on creating products using environmentally friendly resources. For the value recovery, there were several companies which provide platform for the customers to buy pre loved products. For the optimal use, the companies mainly used fashion sharing as their business model.

4.2 Opportunities & Challenges in Circular Business Model Adaptation

Based on the interviews with business practitioners, this part gives an insight into the businesses' perspectives about the opportunities and challenges of the founders, CEOs, and managers of circular fashion business in Indonesia. Considering all the information gathered, the author will also discuss about the findings and relate it with the responders' consideration regarding the practice for the future of their business.

Opportunities

After interviewing CEOs and founders of the circular business in Indonesian Fashion Industry, the author of this study discovered eight opportunities which are cost saving manufacturing, differentiation potential to meet low cost competition, improved margin, networking, improved customer relations and customer behavior understanding, environmental impact, and technological advancement.

Cost Saving Manufacturing

Founders of the Von Gems and Batik Gemawang saw cost saving manufacturing as their opportunities when entering the circular business model. Gemawang, CEOs of the Von Gems stated that:

[...] the raw materials needed to produce the products are cheap or basically free.
[...] we can get waste anywhere including our house or our surroundings [...].

Fauzi the owner of Batik Gemawang also added that:

[...] when we could use recycled materials to made our products [...] we could possibly reduce our production cost and at the end increase the revenue [...]

The founders of Batik Gemawang and Von gems highlight that they could use relatively cheap materials or recycled materials (see figure 7) to produce their product. They sees this

as a good business opportunity because they can easily reduce their cost while producing the product.



Figure 7, Recycling Process in Batik Gemawang

Differentiation Potential to Meet Low Cost Competition

On the other hand, Putri mentioned that there is a potential to disrupt the existing market by selling sustainable products with relatively low price compared to existing competitors. Furthermore, she said:

[...] our innovation itself is unique already regarding the low pricing point using our mass production technique [...] Up until now, many batik artisans are not able to answer the challenge [...]

Other companies, such as Batik Gemawang use low cost competition to distinct their companies from the others. Instead of reducing the quality, they increase the quality and still have somewhat low price compared to their direct competitors.

[...] we want to distinct ourselves from our competitors. We try to make our products become as unique as possible, so that no other product can catch up to our products in terms of quality and price [...] We keep on innovating to increase our quality so that our products' value gets higher and our customers get the products with the quality that they deserve with the price they can afford. (Fauzi Bowo)

Given those points, the founders understand that competition happens most of the time based on price, but recently customers require a higher quality than they did in the past. Batik Warna Alam si Putri and Batik Gemawang also try to accomplish the same goal, differing themselves by their low cost and better quality products at the same time.

Improved Margin

As for the company named Aest Fabric, they try to get as much margin as they can possibly get. Both of the founders believe that their uniqueness and authenticity could achieve higher value in the eye of the customers. Ella, co-founder of Aest Fabric explained:

[...] we plan to sell the products as limited edition series [...] the customer is willing to pay a higher price to get our products.

It is unusual to see that not so many founders mention about how they can improve the margin by operating in this field of business. We can assume that most of the fashion businesses in Indonesia are characterized by their exclusivity (handmade products and limited edition), so, we can say that some of the fashion industries in Indonesia do not realize that they could or already improved their margin by operating in this field of business.

Networking

As one of the companies that practice closed cycled loop, Osem try to see competitions as the key for the advancement of circular economy. Talisa Dwiyani, co-founder of Osem said that:

[...] We have to collaborate because we have the same purpose. [...] it is not the right time to compete anymore. We have to cooperate, to co-create or to do an economic sharing [...]

Shita, co-founder Jalin also added a similar statement that collaboration is the key to enter this slow fashion industry.

[...] I saw a great opportunity because the trend was approaching this kind of business. [...] I found that this company generated a lot of ethical benefits because the slow fashion that we enter is a field for collaboration. Incomparable to the fast fashion world that destroys each other's businesses and endangers the environment (Shita).

The founder of Jalin and Osem basically have the same view while doing circular business model. They feel the urgencies to work and to collaborate together since they perceive this as one of the reasons to run circular business model.

Improved Customer Relations and Customer Behavior Understanding

On the other hand, several companies also identify better customer relations and customer behavior understanding in Indonesian fashion industry as their opportunity (e.g Jalin, Semilir, Tenun Sumba, Batik Warna Alam Si Putri). Triana Hapsari, co-founder of Jalin stated:

Nowadays, people start to know about how to live a good and a healthy lifestyle; people start to appreciate the process [...] when buying our clothes, they know that they help the environment, because the clothes we produce are ethically and naturally made.

Furthermore, Marcella, the owner of Semilir also has the same thought that currently, people start to get to know what natural coloring (see figure 8) product is, so that its value is already recognized by the community. Kornelis Ndakapang, the founder and artisan of Tenun Sumba added:



Figure 8. Red Natural Colorant Process from Noni Roots

[...] more people come to visit our studio and they begin to understand and appreciate the natural coloring products and processes. [...] there are more and more events to showcase my works from national to international scale. [...] There are more people who are interested in my works because they have already gotten some information about our products.

Their businesses mainly engage with customers who know and understand about the meaning, values, and vision behind the companies. The entrepreneurs saw that Indonesian customers have started to become well educated and well informed. As several founders have already mentioned, more customers started to appreciate things that important to them, such as their lifestyle, the environment and so on.

Environmental Impact

Several companies also recognize environmental impact as their opportunity to begin their businesses. Elsana, CEOs of the Svaloka was encouraged to create more environmental friendly product since the beginning of the companies. Shita, co-founder of Jalin saw environmental issues in fast fashion to address the need of circular business model in fashion industry. She explained about how she came up with the idea:

[...] There are a lot of issues regarding fast fashion; we want to build a brand that helps the environment at the same time [...] But to accomplish that, a lot of things need to be changed including our and the customer's lifestyle [...]

Gemayang, the owner of Von Gems takes this opportunity to differ her business from the competitors. She wants to create sustainable products so that her products can compete easily with other products that have no sustainable value. Correspondingly, Talisa Dwiyani, co-founder of Osem added that:

[...] we have never thought about running a sustainable business. Because, at that time, circular fashion or sustainable fashion terms were still unknown in Indonesia. But, strangely, since the beginning, we had already thought that it would be better to make products using materials that exist around us. We bought and created the products in the same area we operate. [...] and we try to make the designs timeless [...]

As shown above, founders view environmental impact as the important factor to start the business. Because they know, by running this business, they will at least make an impact to their surroundings and educate their customers.

Technological Advancement

Tenun Sumba and Batik Warna Alam si Putri highlight the importance of the technology, as they view technology as a way to compete in diluted markets. Kornelis Ndakapang, the owner of Tenun Sumba sees the advancement of technology as the important thing to increase his company's sales. He also stated that in the past, when the technology did not present, it was so hard to market the product. But since the companies use the advancing technology, his company grows exponentially. Similarly, Putri, the CEOs of Batik Warna Alam, said that she realized that the technology involvement in the traditional fabric industry is still minimal. So, she decided to create a business that utilize technology:

[...] the use technology transfers from canting (local dyeing technique) to printing does not eliminate batik value (see figure 9). Batik is the way Indonesian people draw with specialized tools and wax. So the wax printing technique that I do is still part of the batik [...]



Figure 9. Technology Transfers in Batik

The author of this study found that technological advancement was not mentioned by any researchers. But in this study, technological advancement played a major role to the businesses in Indonesia. Nowadays, they can apply and improve the way they do their

business from the sourcing, manufacturing, and supplying the products to the customers using the advanced technology.

Challenges

The researcher identifies nine challenges when adapting circular business model in Indonesian Fashion Industry such as customer type restrictions, fashion vulnerability, lack of support from the supply network, capital tied up, requires technological expertise, operational risk, partner restrictions, pricing strategy and competitors.

Customer Type Restrictions

Customer type restrictions challenge encountered by some companies which are interviewed by the author (e.g. Jalin, Aest Fabric, Semilir, Batik Warna Alam si Putri). Shita, co-founder of Jalin stated that it is hard for them to sell their products because it only has small market and it is so hard to enter that market. Additionally, Novi Kartilaga, co-founder of Aest Fabric also has similar problem, she revealed that it is difficult for their company to penetrate the market. Marcella, CEOs of Semilir explained:

[...] we still need to educate customers, because there are still many people who do not know about natural dyes (see figure 10). Where printed batik itself is still rampant, there are still many people in Indonesia who prefer to buy cheap products which have severe environmental impacts.



Figure 10. Natural Dyeing Process in Jalin's Studio

Similarly, Putri, the founder of Batik Warna Alam si Putri also stated that the customers in Indonesia are challenging. She indicates that it was hard to educate the customers about sustainable and environmentally friendly products. The same problem is encountered by Gemayang, the CEOs of Von Gems. She described that the main challenge for her business is to educate the customers. She has to explain that her products are recycled so they have more value. Talisa, co-founder of Osem also revealed that the customer type of their business is specific, she explained:

[...] people who prefer to buy our goods are activists, journalists, designers, and so forth [...].

As noted above, the customer type restrictions are found when a business tries to engage in the circular business model. This challenge mainly makes the market becomes hard to penetrate. As the result, it is really hard for them to market their products or services. This study found that education plays a big role to navigate this existing problem.

Fashion Vulnerability

Fashion vulnerability is one of the challenges faced by circular fashion business in Indonesia. All three Jalin's founders, for example, explained that it is so hard to make their product timeless. They even put high effort to navigate this barrier and find a way to create long lasting trends. They try to live up to their vision that they care for ethical and sustainability of their products.

Similarly, Elsana, the CEOs of Svaloka also experienced the same challenge. He noticed that there is a long process in the manufacturing and production of his company's slow fashion products due to longer time needed when brainstorming about how to create that kind of products. In other words, he understands the need of making his product timeless, yet he encounters a new problem when trying to create that timeless product: a longer time is needed in manufacturing his product. On the other hand, Arichi, co-founder of Osem illustrates her business:

[...] we never thought about running a sustainable business. Because, at that time, circular fashion or sustainable fashion terms were still unknown in Indonesia. But, strangely, since the beginning, we had already thought that it would be better to make products using materials that exist around us. We bought and created everything in the same area. Everything is made simple and we try to make the designs timeless [...]

The fashion vulnerability in circular business challenge is challenge commonly faced by fashion industry and this challenge is often stated in the literatures. With that in mind, it is fair to say that all of the fashion businesses in Indonesia address this challenge when doing circular business. While some businesses are already able to overcome the situation by making the design timeless, several companies in Indonesia are still unable to react to trend changes.

Lack of support from the Supply Network

Svaloka is the only one company which specifically mentioned about the lack of support of the supply network. His founder stated that the sources of their materials are limited. He furtherly explained:

[...] there were many suppliers boasted that they would be able to fulfill the orders of the materials (see figure 11). Then shortly after that, there were many crop failures to the point I had to initiate a local movement and create my own supplier [...]



Figure 11. Traditional Batik Technique in Batik Gemawang

The founders found that supply chain is still one of the problems their companies faced. The availability of the sustainable suppliers is limited, because there are still a few companies that need them. In other way, the market in Indonesia still really new in adopting sustainable business. there is still lack of support from supply network, because the market is insufficiently developed.

Capital Tied Up

Companies such as Osem experienced capital tied up. Financial becomes a sensitive issue when they started to improve their efficiency and increased their revenue because it is becoming hard for them to cope up with the competition while they only too small margin. Shita, co-founder of Jalin stated the same experience, she said that when they started the business, it was hard for them to find investment from traditional banks because of how they operated their business.

In addition to the challenge that the founder of Osem and Jalin stated above, it can be assumed that service provider (renting) companies might encounter similar problem because the customers could get the products without paying as much as the companies paid for the products. But unfortunately, the writer could not interview any service providing circular business model in Indonesia.

Requires Technological Expertise

Batik Warna Alam si Putri encountered technological expertise requirement as a problem when they tried to exploit the improvement of technology to improve the industry. Putri, the owner of Batik Warna Alam si Putri illustrates that:

[...] to combine traditional technique and technology, it takes a lot of trial and error to achieve the best quality. So we have to sharpen ourselves to be able to get the product with the standard that we want. [...] our technique is transferring technology, changing and accelerating the process of natural coloring so that we could reduce the price in the market (see figure 12).



Figure 12. Indigo Plant Seeds in Batik Warna Alam Si Putri

While technology advancement becomes one of the main driver for the entrepreneurs to build circular business, the other side of the coin is profound skills are needed to support it. The gap of knowledge and lack of experts within the company could hinder the company's development, particularly when the company tries to innovate.

Operational Risk

The operational risk is the most common challenge encountered by the circular business adaptors in Indonesian fashion industry (e.g Jalin, Aest Fabric, Rupahaus, Svaloka, Semilir, Tenun Sumba, Osem). Because most of the companies interviewed by the researcher make their products from scratch and mainly use natural products, it is hard for them to standardize the production and to maintain the quality. Marcella, CEOs of the Semilir explained:

[...] I have also had challenges in production. The downside of using natural coloring is, the color produced cannot be standardized because of different weather conditions and different plants used (see figure 13). [...] most of the works of the artisans are unpredictable and need constant monitoring. When the orders are repeated on the same products, the results usually are not of the same quality.



Figure 13. Natural Colored Yarn in Tenun Sumba Studio

Kornelis Ndakapang, the founder of Tenun Sumba also added that production wise, his products' quality is hard to maintain. Especially since the weather and the climate affect the end result of the product. They identified that the operational risk of the firm will surge when the businesses adopts circular business model.

Partner Restrictions

Rupahaus is the only company that has partner restrictions as the problem. Stephanie, CEOs of Rupahaus revealed that it is so hard to make good relationship with the local artisans. Furthermore, she said:

[...] the challenge from the beginning is how to make a good relationship with the artisans. Communication with local people is complicated because they cannot converse with the national language and they can only speak the local language. [...] it is hard to managed the artisan's working tempo when making products [...] I have a business partner and they could not handle this production problem, so they decided to leave the company we built together. [...] We can't lie that we need to be patient when handling the working mentality of the Indonesian people. The mindset of Indonesian people is still falling behind [...]

Overall, the partner restrictions for circular businesses in Indonesian fashion industry could possibly happen because there are still very few sustainable companies with distinct operation system from non-sustainable companies, thus compatibility issue will become a problem. If companies with different values, mindsets, and perspectives want to create a partnership.

Pricing Strategies

Although pricing strategies is not included in the literature review, several companies experienced this challenge (e.g. Jalin, Svaloka, Jalin). Svaloka and Batik Warna Alam si Putri share the same reasons, although the consumers in Indonesia are impulsive, the price is still

the main reason for customers in Indonesia to buy something. Avina Fauziah, co-founder of Jalin stated that:

[...] it is hard to decide on the best price for the customers while still maintaining a good quality product, because natural raw products are usually expensive. There are lots of interests, but some people don't have access and ability to buy the products. [...] I think it is because of our price. A lot of young women asked about the product, but at the same time, they don't have enough disposable income to buy our product.

Though consumers in Indonesia have a high level of impulsive buying behavior, the pricing still one of the reason for buying fashion products. The founders understand that affordable prices and quality of the product significantly influence how attractive a product is for the consumers in Indonesia.

Competitors

The other challenge that is not included in the literature review is the competitors. Putri, the founder of Batik Warna Alam si Putri reveals that the competitors can quickly mimic the patterns of the product and at the same time they use artificial and non-environmental friendly product. Kornelis Ndakapang, CEOs of the Tenun Sumba stated similar thing:

[...] competitors are also a challenge. Because a lot of artisans do not do natural dyes but dare to claim that they use natural dyes. In addition to damaging the price, it can also damage the image and reputation of natural dye weaves (see figure 14).

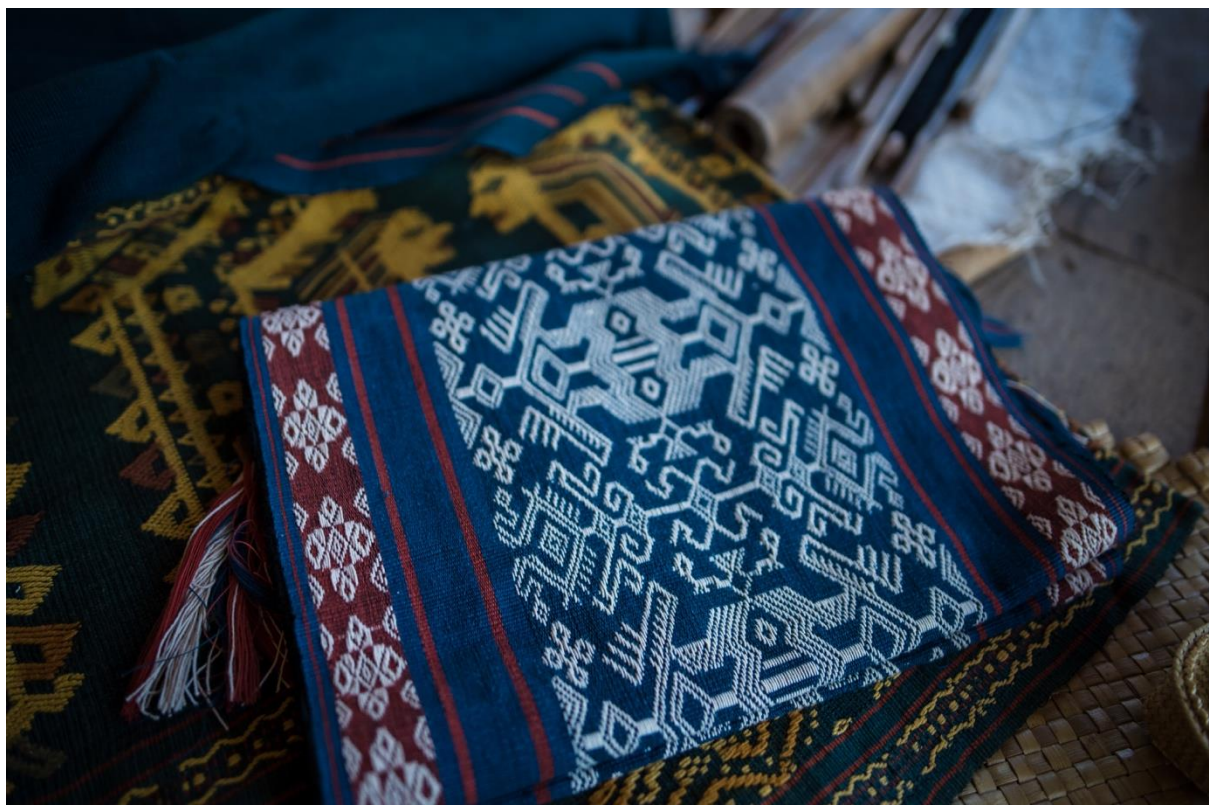


Figure 14. Woven Products from Tenun Sumba

The founders of Svaloka and Osem also said similar thing. Many similar companies have tried to copy successful brands' products but those imitators use bad quality materials and thus, contradict the vision and mission of the circular business.

Considerations

The world is changing, fashion industries will soon adapt to that change and circular business model will be the trends in the future. "Everything will be done fairly; all transactions will become a fair-trade, from seeing the movie "true cost" and comparing it to our own experience, it will happen soon", said Elsana, CEO of the Svaloka regarding the increasing concern of the people in the future. Talisa, in her interview also stated that "I hope our customers can be better informed about this industry. We cannot control it, thus, we hope that every company can educate their customers regarding sustainability. We should encourage the customers to think not only about buying things but also about how the products they buy are made."

The companies should start to collaborate. Talisa, co-founder of Osem also added that every circular business has the same purpose. She underlined "it is not the right time to compete anymore. We have to cooperate, to co-create or to do an economic sharing." Stephanie, the CEO of Rupahaus also revealed that collaboration is a strength for any circular business to go to the next level.

However, Stephanie also voiced her faith: "Nowadays, people are motivated to continue to innovate. And the world is getting more extreme in all its positive and negative aspects. All is contradictory for every reasons because in many occasions, many people start talking about making an impact to proof themselves. Freedom of speech has brought down boundaries; they no longer exist, and the cultures also blend into one. Because of this, people start to innovate to create something they believe will be useful in the future. People start to have awareness about how we take care of the earth. At the end of the day, people will think about how we move and keep the balance of the world. So people will go to renewable and sustainable technology. Even brands like Zara and H&M are going towards ethical fashion. For the future movement, fashion and textile industries will start to go towards sustainable fashion, because, literally, the world will be destroyed if it is not changed."

Discussion

Generally speaking, most of the companies identify to the opportunities and challenges according to the literature review (see table 5). But it is important to note that there are no companies that encounter increased brand protection (Seitz, 2007) as opportunity and lack of supporting regulation (Kuo et al., 2010), risk of cannibalization (Guiltinan, 2009; Michaud and Llerena, 2011) as challenges. Nevertheless, the author of this study also found that technology can become an opportunity in Indonesian fashion industry. Furthermore, some companies in this study also pointed that the pricing strategies and competitors are important barriers when adapting circular business model.

Opportunities		Challenges	
Literatures	Findings	Literature	Findings
Cost Saving Manufacturing	Cost Saving Manufacturing	Customer Type Restrictions	Customer Type Restrictions
Low Cost Competition	Low Cost Competition	Fashion Vulnerability	Fashion Vulnerability
Networking	Networking	Lack of Support from Supply Network	Lack of Support from Supply Network
Customer Relation	Customer Relation	Capital Tied Up	Capital Tied Up
Improved Margin	Improved Margin	Risk of Cannibalization	-
Environmental Impact	Environmental Impact	Technological Expertise	Technological Expertise
Brand Protection	-	Lack of Supporting Regulations	-
-	Technological Advancement	Partner Restrictions	Partner Restrictions
		-	Pricing Strategies
		-	Competitors

Table 5. Opportunities & Challenges in Literatures and Findings

The lack of the brand protections means that the circular business in Indonesia still has not realized the power of the sustainable business they created, as they fail to grab the chance to protect their business. While the absence of the lack of supporting regulation challenge indicates that the circular business in Indonesian fashion industry is still in the development phase, unlike the other circular business in a developed country. Furthermore, the risk of cannibalization shows that the interview data that researcher gathered is not relevant for addressing this challenges, as most of the companies' size is below 100 or rather called as small medium enterprise.

As for the best practice for the future, the author of this study suggested that collaboration is the key for the circular business model, followed by the needs of educating all parties involved in the industry and the needs to protect the brand as the way to navigate the challenge. With those three practices, circular business in Indonesian fashion industry could be benefited by sharing and lowering the risk of failure.

5. Conclusion & Recommendation

The general research question of this study is “What are the potential challenges and opportunities that may arise when adopting the circular business model in Indonesian Fashion Industry?”. This study attempted to answer this question using the different kinds of literatures about opportunities and challenges, and circular business model framework as demonstrated in the conceptual framework; it was concluded that the circular business model by Achterberg et.al. (2017) was shown to be the most applicable theory to this research. The case study was done first by collecting data through interviews as the primary data collection and content analysis as the secondary data collection.

After comparing and compiling all of the insights, in the perspective of founders of circular fashion business in Indonesia including their considerations for the future, this research concludes that the several opportunities and challenges may arise when adopting the circular business model in Indonesian Fashion Industry. The main opportunities include: (1) cost saving manufacturing, (2) differentiation potential to meet low cost competition, (3) improved margin, (4) networking, (5) improved customer relations and customer behavior understanding, (6) reduced environmental impact, and (6) technological advancement. The main challenges include: (1) customer type restrictions, (2) fashion vulnerability, (3) lack of support from the supply network, (4) capital tied up, (5) requires technological expertise, (6) operational risk, (7) partner restrictions, (8) pricing strategies and (9) competitors. From those opportunities and challenges, the best business practices of the circular fashion business in Indonesia are collaboration, needs of educating all the parties and the needs to protect the brands. These results are proven to have high credibility and low applicability levels due to the nature of the methods and the selected sources.

The major influence of this report is being one of the first scholarly studies concentrating on circular business model in the developing countries, especially in Indonesia. The author identified several business models categorized in circular design, optimal use and value recovery in Indonesia fashion industry which have not been mentioned in any journal article or paper before. The author also recognized that the network organization has not yet been adapted to the Indonesian fashion industry and could be the indication of the early phase of circular business development.

Furthermore, several suggestion of future studies are: further qualitative study involving service type circular business model to be conducted since it is still absent in this research so that the result obtained will be more accurate to illustrate the characteristics of circular business in Indonesian fashion industry. Qualitative study is needed because even though the result interpretation and discussion in this study have been done by following the analysis criteria from literature and by referring to previous related research, currently, there are still very few researches related to circular business in Indonesia fashion industry. Therefore, it will be beneficial to have more data by conducting another qualitative study. Next, because of the nature of the qualitative research, it is hard to generalize the result of this research. Thus, a quantitative study might have a more representative results to find out about the challenges and opportunities in circular business in Indonesian fashion industry, accordingly, a quantitative study is suggested as a follow-up. The notable motives, business models, challenges and opportunities in Indonesian fashion industry which are found in the qualitative study can be used as a reference to design further quantitative research.

Lastly, from the business point of view, the author of this study encourage the entrepreneurs in Indonesia to establish network organization type in value hill category which is still absent in Indonesian fashion industry. With the existence of recovery provider, process design, value management and tracing facility business model, the development of the circular business in Indonesian fashion industry will be feasible.

6. Reflection

In this research, the writer himself has his own motivation to find a gap within the circular business in Indonesian Fashion Industry. Fortunately, the findings of this research found that there are still a lot of things to do to make the circular business in Indonesian Fashion Industry in order to function. The most important thing to note is that the infrastructure and the support from the government regarding circular business in Indonesia are still missing. However, some types of circular business model have already developed in Indonesian Fashion Industry, but the author found that the Network Organization type is still absent. While this is a great opportunity for the entrepreneurs to start a business, this is also a challenge as they need to identify and adjust for the Indonesian market.

At first, the author of the study planned to have twenty interviews for this research. However, the writer was only able to do interview with twelve founders (ten companies). The writer finds it was hard to connect or communicate with the companies in Indonesia due to cultural reason. Indonesian companies tend to have a tradition for hiding its company formula or secrets. Thus it is hard for an outsider to be able to get the data using the interview method. As consequence, the samples collected in this still have not represented all the business model types in circular business model, as the writer feels the service type business model is still lacking.

Furthermore, the limitation in uncovering founders' opinion due to language difference has been reduced by conducting interview using participants' native language. Nevertheless, it requires translation process in between. Thus, the translation accuracy depends on the writer itself.

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Appendices

Appendix A. Interview Questions

1. How did you start your company?
 - a) Please share your story why you decided to start your business and how you knew operating in this field will be beneficial?
 - b) Is there anything which encouraged you to begin the business?
2. Which are the things that motivated you to engage in this particular business?
 - a) Do you have a special vision and mission behind your innovative business model?
 - b) What inspires you?
 - c) Can you point out that you when you look back, what are the crucial moments of your business?
 - d) How you deal with them?
3. Did you or are you still encountering challenges operating in such a new field of business?
 - a. If yes, can you tell us more about it?
 - b. Do you see increasing competition also as a major challenge?
4. Do you consider your companies unique and how does it vary from other companies in this industry?
 - a. For example, it can be your management style, assets, strategies, or loyal customers.
 - b. Do you think your unique features affected your business future?
5. Please share your opinions and feelings about the current conditions for fashion business in Indonesia:
 - a. When comparing with the past, do you think the market is growing and it is easy to increase your sales profits?
 - b. How do you think about the future of sustainable fashion business?
6. Please explain how you operate your business:
 - a. Who are your key partners?
 - b. What's your relationship with them?
 - c. How do you balance your suppliers and customer's needs? (in case of a platform, both, suppliers and buyers are customers)
 - d. How many employees do you have? ask another key resources and activities
7. How would you describe your typical customer?
What are their average age?
 - a) Do you need customer acquisition cost?
 - b) What are the demography for your customers?
 - c) How willing are they to buy your product?
 - d) How your company reach them?
 - e) How do your company come up with marketing strategy?
8. How do you make profit, how is your cost/revenue structure?
9. Do you invest a lot in advertisement and technology?
 - a) How your company deal with social media?
10. How do you envision fashion and textile industries in the future?
 - b) Does it need to change?
 - c) What are your company going to do to adapt with that future?

Appendix B. List of Codes

1. Codes for grouping the adoption motives of Circular Business Model

(AM)

AM_Structural_Economic
AM_Structural_Environmental
AM_Structural_Social
AM_Structural_Holistic
AM_Cultural_Economic
AM_Cultural_Environmental
AM_Cultural_Social
AM_Cultural_Holistic

2. Codes for grouping the classification of Circular Business Model

(CBM)

CBM_Circular_Design
CBM_Optimal_Use
CBM_Value_Recovery
CBM_Network_Organization

3. Codes for grouping the opportunities when adopting Circular Business Model

(OPP)

OPP_Value_Cost_Saving
OPP_Culture
OPP_Low_Cost_Competition
OPP_Networking
OPP_Customer_Relation
OPP_Customer_Behaviour
OPP_Margins
OPP_Environmental_Impact
OPP_Brand_Protection
OPP_Others

4. Codes for grouping the challenges when adopting Circular Business Model

(CHA)

CHA_Customer
CHA_Fashion_Vulnerability
CHA_Supply_Network
CHA_Capital
CHA_Cannibalization
CHA_Technological
CHA_Operational
CHA_Regulation
CHA_Partner
CHA_Others

5. Codes for grouping the practice companies have done when engaging the Circular Business Model

(PRA)

PRA_Succesfull
PRA_Unsuccesfull

Appendix C. Circular Business Model

Appendix C.1. Circular Design

1. Jalin

- Value Proposition

Sell natural dyed clothes with timeless design

- Customer Segments

Women (24-45 years old)

- Channels

Website, Instagram, and Pop Up stores (events)

- Cost/Revenue Structure

Selling directly to customer at fixed price

2. Rupahaus

- Value Proposition

Sell wide range of wearable and home decors from natural materials (ethically made products), assimilate native crafts and textile processing to customer's lifestyle.

- Customer Segments

Everybody

- Channels

Website

- Cost/Revenue Structure

Selling directly to customer at fixed price, offer worldwide shipping

3. Tenun Sumba

- Value Proposition

Sell handcrafted and natural weaving products which produced locally using local materials

- Customer Segments

Everybody

- Channels

Direct visit to the studio and Pop Up Stores (events)

- Cost/Revenue Structure

Selling directly to customer at fixed price

4. Aest Fabric

- Value Proposition

Sell limited and handmade eco print product from wearable to home decors, training and educating customers

- Customer Segments

women

- Channels

Instagram

- Cost/Revenue Structure

Selling directly to customer at fixed price, order by request, workshop fee

5. Semilir

- Value Proposition

Sell handcrafted and natural dye wearable products

- Customer Segments

Women (25-50 years old)

- Channels

Instagram and Pop Up Stores (events)

- Cost/Revenue Structure

Selling directly to customer at fixed price

6. Svaloka

- Value Proposition

Authentic handmade Fashion and accessories using natural coloring

- Customer Segments

Women and men

- Channels

Instagram and Pop Up Stores (events)

- Cost/Revenue Structure

Selling directly to customer at fixed price

7. Batik Warna Alami si Putri

- Value Proposition

Sell affordable natural dyed batik

- Customer Segments

Women and men, B2B

- Channels

Website, Pop Up Stores

- Cost/Revenue Structure

Selling directly to customer at fixed price, Bulk Pricing

Appendix C.2. Optimal Use

1. Osem

- Value Proposition

Sell ethical textiles with organic patterns using natural colorant, buyback after buying the products

- Customer Segments

Women

- Channels

Instagram, physical stores (consignment) and Pop Up stores (events)

- Cost/Revenue Structure

Selling directly to customer at fixed price

2. Bellsbee

- Value Proposition

Renting luxury clothing made by local designer on your special occasion, online booking and direct booking in physical stores, styling and recommendation

- Customer Segments

Women

- Channels

Website, Apps, and Physical Store

- Cost/Revenue Structure

Rental for few days for a fixed price, delivery and cleaning options

3. TheDressCodes

- Value Proposition

Rental of luxury bridal and evening gown, 400 authentic local and international designers

- Customer Segments

Women

- Channels

Website, Instagram and Physical Stores

- Cost/Revenue Structure

Rental for few days, late fee, company is in charge of cleaning and shipping

Appendix C.3. Value Recovery

1. Batik Gemawang

- Value Proposition

Sell handcrafted batik using recycled materials and dyed

- Customer Segments

Business to business

- Channels

Website

- Cost/Revenue Structure

Selling directly to customer at fixed price, bulk pricing, return policy

2. Von Gems

- Value Proposition

Sell wide range of handcrafted jewelry using recycled materials

- Customer Segments

Women

- Channels

Instagram

- Cost/Revenue Structure

Selling directly to customer at fixed price

3. Tinkerlust

- Value Proposition

e-commerce preloved platform, provide authentic and stylish social marketplace where users can connect with other fashion seekers

- Customer Segments

Everybody

- Channels

Website

- Cost/Revenue Structure

Selling directly to customer at fixed price, curation with 15% commission, return and shipping policy

4. Bebelian

- Value Proposition

Marketplace for the pre-loved celebrity bags

- Customer Segments

women

- Channels

website

- Cost/Revenue Structure

Selling directly to customer at fixed price

5. Ziptango

- Value Proposition

Sell authentic and second hand designer bag, loyalty reward program, return policy

- Customer Segments

Women

- Channels

Website

- Cost/Revenue Structure

Selling directly to customer at fixed price, 8% commission fee

6. XXLab

- Value Proposition

Provide alternative bio-material from soya liquid waste using bacteria and tissue culture

- Customer Segments

-

- Channels

-

- Cost/Revenue Structure

Currently still in the development phase

7. Second Chance

- Value Proposition

Sell preloved authentic designer handbags, 0% installment, free shipping

- Customer Segments

Women

- Channels

Website

- Cost/Revenue Structure

Selling directly to customer at fixed price

Appendix D. Interviews Transcripts Sample

Co-Founder of Osem - Talisa Dwiyani

How did you start your company?

That time when I returned home from an internship program Japan in 2013. After that, we feel that we have not made impact at all and thus, want to make something. After that, we decided to make the handmade, artisan and craft made studio. There used to be a place called Santa market; the site provides a place to create a start up at an affordable price. After that, we think about fashion industry, as well as studying more subjects individually again to improve the quality (master strategic management, creative industry and creative sustainability, each subject is suited to each job desc).

At that time our parents were working on textile orders with "jumputan" technique using jeans dye. Immediately I think, actually, it is really easy to dye clothes using natural dyes. After that, we make textile products that can be applied everywhere using natural dye. Finally, we joined the workshop in Solo and Jogja to study. We finally decided to use blue dye from indigo plants.

How do you know that this field will be beneficial?

At first, we just wanted to do something. Initially, this was just a side job because everyone has their own jobs. We try to make a sustainable product because we want to run a business that is not just looking for profit without giving impact.

At first, we have never thought about running a sustainable business. Because, at that time, circular fashion or sustainable fashion terms were still unknown in Indonesia. But, strangely, since the beginning, we had already thought that it would be better to make products using materials that exist around us. We bought and created everything in the same area. Everything is made simple and we try to make the designs timeless. Apparently, when we make use or use local products, that become a part of ethical fashion as well, because we are doing local empowerment.

Finally, we meet some communities and entrepreneurs who work on sustainable business. We had just learned about slow fashion or ethical fashion at that time, and turns out that everything had been included in our business guideline.

Do you have a unique vision and mission for your business?

Our vision is to run fair trade (not in a small developing country, without calculating the carbon emission). We want to empower the locals, as simple as improving the economy for people around us.

After operating for a year without creating a business model canvas, we began to be asked to get to the concept store and retail. Finally, we start to make a better administration. We began to work with social organizations; we eventually become partners in creating products with those organizations.

At first, we just created homeware, but because fashion has a faster rotation, we finally decided to focus more on fashion although we still produce some decoration product. So, because of the demand from the market, we turn to the fashion industry, because homeware products demand in Indonesia still limited.

To describe, we try make our fashion product to be fully sustainable, where using buttons becomes one of our main concerns because button takes a long time to be recycled.

Can you point out your crucial moments of your business?

One year after we operate. When we found out about the terms of ethical fashion and sustainable fashion, we decided to strengthen this business. For example, we can do benchmarking with other sustained brands in Europe. Since we have studied circular economy, we are trying to do a closed loop system. Our used goods or waste product can be exchanged and returned by the customers, and they get discounted price for the next purchase.

It is challenging to do circular economy in Indonesia. Because of the limited education, very few people know about circular economy, let alone doing it.

For the future, we have made this a full time job instead of a side job anymore. So, there are four women and one man who become part of our team and hold the shares in this business.

Can you tell me about challenges you encounter?

Initially we didn't have a serious thought when making this business but now we have already "fell to deep" here, thus, we try to maximize this business. Scale-up is a problem; we initially think whether we want to make this business an exclusive business or a more customer based business. We used to want to make an exclusive one, but, after thinking that the impact is the most important thing, we finally decided to sell this product as a widely sold product.

Right now we are starting to improve our financial statements. Because the becomes more significant and we margin we take a lower margins. Financial becomes a sensitive issue.

The next challenge is production. Once, we got an order that exceeded our workload from a company. So we forced to increase our production. Finally, we got some staff.

Furthermore, we also have challenges in coloring. Each product is unique because using natural dye is a tricky business.

We initially just wanted to focus on one color, especially since natural indigo dye varies. For instance, India, Solo or Sumba have their own characteristics. But now, more people are

imitating the natural staining that we make. Or they are using artificial coloring to copy our products.

Now our technique is "jumputan" technique. Knotting methods has already existed since ancient time Indonesia; it is the knotting technique in natural color dyeing. Everything is done with trial and error. What distinguishes us is we want to make a lot of empowerment. Behind the products, there are some workers who are in dire need of a job (e.g. hearing impaired etc.).

Although our price is below the market price, and using our clothes is very difficult (freestyle). People who prefer to buy our goods are activists, journalists, designers, and so forth. That uniqueness is what brings osem to this stage. If question regarding whether our natural dye is just blue or not, now, we have started to research for another color to use. Now we are using mangrove stems that can produce a red color.

Please share your opinions and feelings about the current Indonesian fashion business?

Flashback to three years ago, it was effortless to sell a local product (Because Indonesian people started to concern about the local brands). Lately, many competitors begin to enter the market without any sustainable fashion trait, and many people who do not know about the process buying those products. It dropped the market and lowered the image. The use of chemical coloring is destroying the image.

For 2017, the graphics for ethical fashion has begun to be accepted from the beginning. Perhaps because the information that has spread and Indonesian lifestyle has started to accept it. Now, many people start to like yoga, start to consume raw, vegan or organic food. Apparently, there are also sustainable clothing, and they complement this lifestyle holistically.

Do you see competition as a significant challenge?

Last year, the market very competitive. Finally, we start to think that since we have the same mission, same sustainable product, same goal in empowering our environment, it is not a challenge. That is precisely why we have to collaborate because we have the same purpose. In our opinion, it is not the right time to compete anymore. We have to cooperate, to co-create or to do an economic sharing. So we supposed to do a sharing economy in the fashion industry.

How do you think about the future of sustainable fashion business in Indonesia?

I think it will be bright. Because for Indonesia, ten years in the future, there will be many young generations like Japanese generation of the 1970s. The more number the young people

is, hopefully, the more educated they are and the more they understand about the benefits of sustainable business.

Who are your key partners?

At first, we want to get our resources from places around us. But turns out that we cannot do that and now our coverage gets as wide as Jakarta. For example, our tailors, fabric suppliers, some e-commerce and some physical stores. Because we do not have a store, we always consign and leave our products there.

For now, we have already talked to the potential investors. We have started to consider our options on the investors who have the same vision and value with us. Some of the investors who we want to work with have been narrowed down to investors who work in the sustainable field.

How many employees do you have?

We only have three full-time employees. And so far, those three people, with the help from the five people from the core team can manage to complete the orders from all platforms. Usually, we produce our stuff only when needed or when we want to join an event. Because we wish to do our business in business to business.

How would you describe your typical customer?

What is their average age?

Age varies from 17 to 55 years old. Their style can be equated, generally, the customers are indie people.

What is the demography of your customer?

Indonesia and some are already sold in Europe, especially in Belgium.

How does your company deal with social media?

Now we are planning to create a website. But, for now, the most commonly used social media is Instagram. In our Instagram, we show many results from our workshops. Because in addition to selling products, we also provide training services for people who are interested in learning about how to use natural dyes. Through the workshop, people can learn and share their knowledge about this. From this workshop, we can also market our product through educating people.

How do you envision fashion and textile industries in the future? Does it need to be changed?

I hope our customers can be better informed about this industry. We cannot control it, thus, we hope every business can educate their customers regarding sustainability. We should encourage the customers to think not only about buying things but also about how the products they buy are made.

What is your company going to do to adapt to that future?

We want to explore about the existing natural coloring in Indonesia other than indigo color. We expect that later; the increasing sales will increase the number of local empowerment too. Furthermore, we also improve our business in the form of the workshop. So, we provide not only the products, but also the service. Hopefully, the information that we have can be shared to the customers.

Appendix D. Detailed Overview of the Business Model Per Value Hill (Achterberg et.al, 2017)

1. Circular Design (Uphill)

- Circular Product

"Designing products with their end-of-life in mind by making them easy to maintain, repair, upgrade, refurbish or remanufacture."

- Classic Long Life

"Delivering longevity of a product with high levels of guarantees and services for a high price upfront."

- Encourage Sufficiency

A high price per product can justify lower volumes.

- Circular Material

Utilize input materials such as renewable energy, bio-based-, less resource intensive- or fully recyclable materials.

2. Optimal Use (Tophill)

- Life Extension

Sells consumables, spare parts and add-ons to support the longevity of products.

- Repair & Maintenance Service

Repairs, maintains and possibly upgrades products that are still in use.

- Product Leasing (Product as a Service)

Delivers access to a product rather than the product itself so that the service provider retains ownership of the product. The primary revenue stream comes from payments for the use of the product and a single user uses the product at any given time.

- Product Renting (Product as a Service)

Delivers access to a product rather than the product itself so that the service provider retains ownership of the product. The primary revenue stream comes from payments for the use of the product and different users use the product sequentially.

- Performance Provider (Product as a Service)

Delivers product performance rather than the product itself through a combination of product and services, where no predetermined product is involved and the service provider retains ownership of the product. The primary revenue stream is payments for performance of the product, i.e. pay-per-service unit or another functional result.

- Sharing Platforms

Enables an increased utilization rate of products by enabling or offering shared use/access or ownership through which, different users use the product sequentially.

- Sell and buy-back

Provides a product and agrees on repurchasing the product after some time.

3. Value Recovery (Downhill)

- Recaptured Material Supplier

Supplies recaptured materials and components to substitute the use of virgin or recycled material.

- Refurbisher

Refurbishes used products if necessary and re-sells them

- Second Hand Seller

Provides used products.

- Remanufacturer

Provides products from recaptured materials and components.

- Recycling Facility

Transforms waste into raw materials. Additional revenue can be created through pioneering work in recycling technology.

4. Network Organization (Cross-hill)

- Recovery Provider

Provides take back systems and collection services to recover useful resources out of disposed products or by-products.

- Process Design

Provides services around processes that increase the re-use potential and recyclability of industrial and other products, by-products and waste streams.

- Value Management

Provides services around managing information, materials, transparency, payments and governance in a circular value network. For example, ICT solutions for smart contracts and payment systems, or consultancy on circular management systems.

- Tracing Facility

Services to facilitate the trading and the marketing of secondary raw materials.