

Drivers, Barriers, and Facilitators of Sustainability in the Indonesian Batik Industry

Arien Arianti Gunawan

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Drivers, Barriers, and Facilitators of Sustainability in the Indonesian Batik Industry

Proefschrift ter verkrijging van de graad van doctor
aan de Radboud Universiteit Nijmegen
op gezag van de rector magnificus prof. dr. J.H.J.M. van Krieken,
volgens besluit van het college voor promoties

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Foreword

In the name of Allah, the Most Gracious, the Most Merciful. All praises and thanks are due to Allah, the Almighty, and the sender of Prophets and Messengers. Peace and blessings be upon His final Messenger, Prophet Muhammad (peace be upon him), his family, his companions, and all those who follow his path until the Day of Judgment.

With great pleasure and gratitude to Allah, I present this doctoral thesis which is a humble attempt to explore and shed light on the sustainability of the Indonesian batik industry. I believe that there is a great need for a comprehensive understanding about this topic, especially in relation to the drivers and institutional barriers and facilitators that encourage and discourage the Indonesian batik entrepreneurs to become more sustainable.

I would like to express my sincere gratitude to my promotor, Prof. dr. Allard C.R. van Riel, Prof. dr. Jose M.M. Bloemer, and to my supervisor, dr. Caroline Essers who have guided and supported me throughout this journey. Your constructive feedback and work ethic have made you a great role model for me as an academician.

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I hope this thesis will be of benefit to the academic community and to all those who seek to deepen their understanding of ecopreneurship. May Allah accept our efforts and grant us success in this world and the hereafter.

Sustainable Development Goals 12 – Responsible Consumption and Production in The Quran:

*"Give to close relatives their due, as well as the poor and the 'needy' travelers. And do not spend wastefully."
(Al Isra:26)*

*"And [they are] those who, when they spend, do so not excessively or sparingly but are ever, between that, [justly] moderate."
(Al Furqan: 67)*



Executive Summary

Indonesia is an example of a Southeast Asian developing country which encounters considerable challenges in becoming more ecologically sustainable. Indonesia is characterized by high levels of cultural diversity and unique social dynamics amongst the population, which is presented through their batik industry. The batik industry is often associated with family business practices and inherited batik skills. These are the reasons UNESCO recognized Indonesian batik as a World Intangible Cultural Heritage of Humanity in 2009. Since women dominate the industry, feminine qualities (e.g., caring for others and the environment) are often associated with the entrepreneurs in the industry. However, the Indonesian batik industry employs irresponsible production processes, which –over the years - can lead to environmental degradation and harm the health of the crafters and the community. Consequently, there is an urgent need to encourage people to responsibly consume natural and nature-based resources. Entrepreneurs, i.e., business owners, may have an important role to play in this process. They can adopt ecological entrepreneurship (ecopreneurship) practices in their business to reduce pollution and toxic wastes that could cause environmental degradation. Thus, it is crucial to investigate the individual drivers (motivation and identity) and institutional barriers and facilitators that encourage or discourage batik entrepreneurs from adopting certain ecopreneurship practices, e.g., cleaner production, to better understand their ecological and entrepreneurial behavior.

In the current literature, discussions about individual drivers and institutional barriers and facilitators of sustainability are still scattered and scarce, especially in the context of the batik industry. Therefore, three studies, including a conceptual study and two empirical qualitative studies, were conducted. This dissertation also took into account the complex intersection of the entrepreneur's identities in Indonesia to understand better how they influence the individual drivers and institutional barriers.

In the first study, to develop a better theoretical understanding of how different forms of gender socialization relate to the adoption of ecopreneurial practices, a structured literature review was conducted which explored articles in the Web of Science database (between 2008 – 2017) on drivers of ecopreneurship and focus on the inclusion of gender in the discussion. The review shows that the literature does not pay much attention to gendered drivers of ecopreneurship practices. Studies

mainly include gender as a demographic variable to differentiate women and men (biologically) rather than investigating the effects of femininity and masculinity on motivational factors. Studies on drivers of ecopreneurship exist, but the knowledge that relates motivations to gender (socialization) is limited and scattered, with quantitative designs dominating the landscape. Moreover, differences exist in what drives female and male ecopreneurs. Female entrepreneurs are considered more strongly motivated by personal, ecological, social, and family values to adopt ecopreneurship practices than their male counterparts. Thus, the study contributes to the literature by synthesizing knowledge on drivers of ecopreneurship from three streams of literature and identifying which drivers are likely to be influenced by gender (-socialization). The study enriches the discussions about ecopreneurship practices in SMEs and female entrepreneurship studies by applying a transdisciplinary approach, summarizing the existing motivational factors, proposing a gender-based conceptual model, and creating a research agenda. This study provides further foundations for building a more comprehensive theory concerning the differential drivers among women and men while conducting eco-friendly behavior in business.

The second study explores value-based motivations to adopt ecological entrepreneurship (ecopreneurship) practices and investigates how intersections of social identities such as gender, religion and ethnicity influence these motivations. The study used in-depth interviews and observation data from 16 ecopreneurs in the batik industry. The study found that self-enhancement, conservation, and self-transcendence values motivated entrepreneurs to adopt ecopreneurship practices. The motivation to ensure the livelihood of future generations for the entrepreneurs means securing the quality of the environment for their children's future. Preserving cultural values and adopting religious values often implies respecting cultural traditions because these values are closely related to the environment and society. In Asian - collectivist - cultures, the values underlying the foundation of a business are often community-based rather than individualistic. Furthermore, the study demonstrated that the intersections of entrepreneurs' identities affect their values and thus shape motivations to respond to ecological challenges. Thus, the study contributes to the entrepreneurship literature as it improves our understanding of how intersections of social identities influence ecopreneurs' motivations and decisions to act eco-friendly by connecting motivations, eco-friendly practices, and the intersection of social identities. The study recommends creating more inclusive policies to increase more sustainable behavior in batik entrepreneurs.

The third study explores institutional barriers and facilitators regarding the implementation of sustainability-oriented practices in the Indonesian batik industry,

and provides policy recommendations. The data from two online focus group interviews (in total, eight batik ecopreneurs) were collected, while the study also builds on earlier empirical insights obtained from female batik entrepreneurs. The findings suggest that the barriers faced by the owner-managers included a lack of customer knowledge, socio-cultural limitations, and regulatory aspects that hampered more sustainable batik crafting. Facilitators of sustainability in batik SMEs included ecological, technological, socio-cultural, and political factors. This study also found that the lack of availability of natural raw materials did not seem to be a barrier to the batik SMEs' sustainability. However, the potential of local products, such as hemp fiber, has not been fully explored and considered as alternative raw materials by the government for more sustainable batik production. As the study furthers the sustainable entrepreneurship literature by categorizing 'the sustainable entrepreneur' as either "committed" or "follower" entrepreneurs, it can be understood that some entrepreneurs are moved by heart, while others seek societal acceptance. Moreover, it also advances knowledge by considering the diversity of sustainable entrepreneurs in the batik industry and how their motivations are related to their (institutional) environment and personal values. Because the Indonesian batik industry is dominated by women, this study also provides insights into which institutional barriers and facilitators of sustainability women crafters in a middle-income country such as Indonesia perceive in their business. The study suggests that women in this industry could be role models for women's emancipation and empower other female crafters to shift towards more (sustainable) entrepreneurial behavior.

At the end of this dissertation, based on the findings of the studies, I conclude that there are some improvements which can be made to the literature by future researchers. Contextually, future studies are suggested to consider other identity dimensions of entrepreneurs, such as ethnicity, socioeconomic class, and perhaps immigration status, to provide a more nuanced perspective in studying the ecopreneurship phenomenon and complement knowledge on motivational values. Collecting data in various sectors and comparing the findings among emerging countries may also improve theoretical insights in the ecopreneurship literature due to the different types of cultural values (e.g., ethnic-religious values, individualistic/collectivist) and gender roles (e.g., feminine/masculine qualities domination) that exist. Methodologically, action research with adaptive planning, implementation, and evaluations could be an option for future studies to strengthen entrepreneurs' motivations and accelerate change towards a more sustainable batik industry.

Samenvatting

Indonesië is een voorbeeld van een Zuidoost-Aziatisch ontwikkelingsland dat voor grote uitdagingen staat bij de poging om ecologisch duurzamer te worden. Indonesië wordt gekenmerkt door bijzonder grote culturele diversiteit en een unieke sociale dynamiek onder de bevolking, die vertegenwoordigd worden door de batikindustrie. De batikindustrie wordt vaak geassocieerd met familiebedrijven en traditioneel overgedragen batikvaardigheden. Dit verklaart waarom de UNESCO Indonesische batik in 2009 erkende als immaterieel cultureel werelderfgoed van de mensheid. Omdat vrouwen de batikindustrie domineren, worden vrouwelijke kwaliteiten (bijvoorbeeld het zorgen voor anderen en het milieu) vaak geassocieerd met de ondernemers in deze industrie. De Indonesische batikindustrie maakt echter gebruik van onverantwoordelijke productieprocessen, die in de loop der jaren kunnen leiden tot aantasting van het milieu en de gezondheid van de ambachtslieden, en de gemeenschap kunnen schaden. Daarom is het dringend noodzakelijk om ondernemers aan te moedigen op meer verantwoorde wijze natuurlijke en op de natuur gebaseerde hulpbronnen te gebruiken voor hun producten. Ondernemers kunnen dus zelf een belangrijke rol spelen in dit verduurzamingsproces. Ze kunnen bewust ecologisch ondernemerschap (ecopreneurship) in hun bedrijf toepassen om vervuiling en de productie van giftig afval, die het milieu aantasten, te verminderen. Het is daarom van cruciaal belang om de individuele drijfveren (motivaties en identiteit) en de institutionele barrières en facilitators te onderzoeken die batikondernemers aanmoedigen of ontmoedigen om bepaalde ecopreneurship-praktijken over te nemen, bijvoorbeeld schonere productie. Het is dus belangrijk om hun ecologisch ondernemersgedrag beter te begrijpen. In de literatuur zijn discussies rond individuele drijfveren en institutionele barrières en facilitators van duurzaamheid nog steeds versnipperd en schaars, vooral in de context van de batikindustrie. Daarom zijn in het kader van dit proefschrift drie studies uitgevoerd, waaronder een conceptuele en twee empirische kwalitatieve studies. Daarbij hield dit proefschrift ook rekening met de complexe sociale identiteiten van ondernemers in Indonesië, om beter te begrijpen hoe sociale achtergronden de individuele drijfveren en institutionele barrières beïnvloeden.

Om beter te kunnen begrijpen hoe verschillende vormen van gendersocialisatie zich verhouden tot de adoptie van ecopreneuriale praktijken, werd in de eerste studie een gestructureerd literatuuronderzoek uitgevoerd, gericht op artikelen in de Web of Science-database (tussen 2008 - 2017) die gingen over drijfveren van

ecopreneurship en die zich richtten op aspecten van gender in de discussie. Uit het onderzoek blijkt dat de huidige literatuur niet veel aandacht besteedt aan gendergerelateerde drijfveren van ecopreneurship-praktijken. Studies gebruikten geslacht voornamelijk als een demografische variabele om vrouwen en mannen (biologisch) te onderscheiden in plaats van de effecten van vrouwelijkheid en mannelijkheid op motiverende factoren te onderzoeken. Studies over drijfveren van ecopreneurship bestaan wel, maar de kennis die motivaties relateert aan gender (socialisatie) is beperkt en zeer diffuus, waarbij kwantitatieve benaderingen het landschap domineren. Bovendien bestaan er verschillen in wat vrouwelijke en mannelijke ecopreneurs drijft. Vrouwelijke ondernemers worden beschouwd als sterker gemotiveerd door persoonlijke, ecologische, sociale en familiewaarden om ecopreneurship-praktijken aan te wenden dan hun mannelijke tegenhangers. De studie draagt dus bij aan de literatuur door kennis van ecopreneurship uit drie literatuurstromen te synthetiseren en te identificeren welke drivers waarschijnlijk worden beïnvloed door gender (-socialisatie). De studie verrijkt de discussies over ecopreneurship-praktijken in midden- en kleinbedrijf (MKB) en studies naar vrouwelijk ondernemerschap door een transdisciplinaire benadering toe te passen, de bestaande motiverende factoren samen te vatten, een op gender gebaseerd conceptueel model voor te stellen en een onderzoeksagenda te creëren. De studie biedt verder fundamentele voor het opbouwen van een meer uitgebreide theorie over de differentiële drijfveren tussen vrouwen en mannen tijdens het toepassen van ecologisch duurzaam gedrag in het bedrijfsleven.

De tweede studie onderzoekt motivaties om ecologisch ondernemerschap (ecopreneurship) toe te passen en onderzoekt hoe kruispunten van sociale identiteiten zoals gender, religie en etniciteit deze motivaties beïnvloeden. De studie gebruikte diepte-interviews en observatiegegevens van 16 ecopreneurs in de batikindustrie. Uit de studie bleek dat self-enhancement, conservation en zelftranscendentiewaarden ondernemers motiveerden om ecopreneurship-praktijken aan te wenden. Voor de ondernemers betekent motivatie om het levensonderhoud van toekomstige generaties te waarborgen het waarborgen van de kwaliteit van het milieu voor de toekomst van hun kinderen. Het behoud van culturele waarden en het aannemen van religieuze waarden impliceert vaak ook het respecteren van culturele tradities, omdat deze waarden nauw verbonden zijn met het milieu en de samenleving. In Aziatische - collectivistische - culturen zijn de waarden die ten grondslag liggen aan de oprichting van een bedrijf vaak gebaseerd op het creëren van voordeel voor de gemeenschap in plaats van louter individualistische drijfveren. Bovendien toont de studie aan dat combinaties van verschillende sociale identiteiten van ondernemers hun waarden beïnvloeden en

zo motivaties vormen om te reageren op ecologische uitdagingen. De studie draagt dus bij aan de ondernemerschapsliteratuur omdat hij ons begrip verbetert van hoe complexe sociale identiteiten de motivaties en beslissingen van ecopreneurs beïnvloeden. De studie beveelt aan om een meer inclusief beleid te creëren om duurzamer gedrag bij batikondernemers te versterken.

De derde studie onderzocht institutionele barrières en ondersteunende factoren met betrekking tot de implementatie van duurzaamheidsgerichte praktijken in de Indonesische batikindustrie en geeft tevens beleidsaanbevelingen. De gegevens van twee online focusgroepinterviews (met in totaal acht batik-ecopreneurs) werden geanalyseerd, terwijl de studie ook voortbouwt op eerdere empirische inzichten verkregen van vrouwelijke batikondernemers. De bevindingen suggereren dat het de barrières zijn waarmee ondernemers worden geconfronteerd (een gebrek aan klantkennis, bepaalde sociaal-culturele beperkingen zoals mentaliteitsverandering bij oudere ambachtslieden en regelgevende aspecten zoals complexe bureaucratie), die het duurzamer maken van batik belemmerden. Factoren die duurzaamheid in batik-mkb's ondersteunen omvatten ecologische, technologische, sociaal-culturele en politieke factoren, zoals de beschikbaarheid van een overvloed aan natuurlijke grondstoffen, een systeem om batikmotieven te archiveren, ondersteuning door familie, en morele steun van de overheid. Uit dit onderzoek blijkt ook dat zelfs een gebrek aan beschikbaarheid van natuurlijke grondstoffen geen belemmering lijkt te vormen voor de verduurzaming van het batik-MKB. Het potentieel van lokale producten, zoals hennepvezel, is echter niet volledig onderzocht en wordt door de overheid beschouwd als alternatieve grondstof voor een duurzamere batikproductie. De studie verrijkt de literatuur over duurzaam ondernemerschap bovendien door 'de duurzame ondernemer' te categoriseren als een 'toegewijde' of een 'volgzame' ondernemer. Hieruit leiden we af dat sommige ondernemers vanuit het hart werken, terwijl anderen eerder maatschappelijke acceptatie zoeken. Hierom bevelen we aan om steeds rekening te houden met de diversiteit van duurzame ondernemers in de batikindustrie en van hoe hun motivaties zich verhouden tot hun (institutionele) omgeving en persoonlijke waarden. Omdat de Indonesische batikindustrie wordt gedomineerd door vrouwen geeft deze studie ook inzicht in welke institutionele barrières en ondersteunende factoren betreffende duurzaamheid vrouwelijke ambachtslieden in een middeninkomensland als Indonesië tijdens het uitvoeren van hun bedrijfsactiviteiten tegenkomen. De studie suggereert daarnaast dat vrouwen in deze industrie rolmodellen kunnen zijn voor emancipatie en andere vrouwelijke ambachtslieden kunnen motiveren om over te schakelen naar duurzamer ondernemersgedrag.

Aan het einde van dit proefschrift, op basis van de bevindingen van de studies, suggereer ik dat er enkele verbeteringen zijn die door toekomstige onderzoekers kunnen worden aangebracht. Gezien de context zou ik willen aanbevelen dat in toekomstige studies rond ecologisch ondernemerschap ook andere identiteitsdimensies van ondernemers worden meegenomen, zoals etniciteit, sociaal-economische klasse en misschien immigratiestatus, om een genuanceerder perspectief te ontwikkelen bij het bestuderen van het fenomeen ecopreneurship en verdere kennis over motivatie te verkrijgen. Het verzamelen van gegevens in verschillende sectoren en het vergelijken van de bevindingen tussen opkomende landen kan ook de theoretische inzichten in de ecopreneurship-literatuur verbeteren vanwege de verschillende soorten culturele waarden (bijv. Etnisch-religieuze waarden, individualistisch / collectivistisch) en genderrollen (bijv. Vrouwelijke / mannelijke kwaliteiten) die bestaan. Methodologisch gezien zou actieonderzoek met adaptieve planning, implementatie en evaluaties een optie kunnen zijn voor toekomstige studies om de motivaties van ondernemers te versterken en de transitie naar een duurzamere batik-industrie te versnellen.

Valorization

The knowledge in this dissertation is useful for academicians and practitioners, particularly in creative industries where women are the majority of actors. This dissertation synthesizes knowledge scattered over various domains in the literature, by discussing drivers of ecopreneurship practices, and offers a conceptual model which includes gender socialization as a variable that differentiates between effects of drivers of ecopreneurship. It emphasizes, for example, how family acts as a motivator to adopt ecopreneurship practices. In addition, this dissertation provides empirical evidence from the craft sector in Indonesia that explains how the intersections of the entrepreneur's identity, such as gender, religion, and ethnicity, influence their motivations. The second study pointed out that 'conservation value', which comprises security and tradition values, is an important driver for entrepreneurs to adopt ecological practices in a collectivist society such as Indonesia, specifically in the context of the batik industry. The finding also adds to our understanding of the ecopreneurship phenomenon as previous studies only highlight self-transcendence and self-enhancement values as motivators. The study also suggests that future studies should re-examine the role of the specific context when using Schwartz's value theory as it tends to focus on the Western individualistic context rather than the Asian collectivist context. Finally, this dissertation draws the readers' attention to a categorization of sustainable entrepreneurs based on their orientation toward sustainability as it suggests two categories: committed and follower sustainable entrepreneurs. The third study captures the diversity of sustainable entrepreneurs in the batik industry regarding how their motivations relate to the institutional environment and personal values. It also illustrates how women in a middle-income country with a collectivist society can be empowered through their entrepreneurship practices to acquire a better socioeconomic status and, hence, were able to act as important role models for women's emancipation. This dissertation enhances the knowledge of ecopreneurship, female entrepreneurship, sustainable entrepreneurship, motivations, and family business literature.

Data Management

The data described in my thesis have been collected with the consent of participants. Privacy sensitive data have been pseudonymized. Existing data collected by others have been obtained legitimately. During research, privacy sensitive data have been stored on a protected computer or server environment. After completion of my PhD, research data will be securely stored for reasons of scientific integrity for at least 10 years in an encrypted data storage. Anonymized data are stored together with the necessary documentation in a data repository system [Radboud Data Repository] to which access to the data is upon request and to be approved by the data owner. It is not possible to link data to individuals (unless explicit consent has been given) in publications or published datasets.

Chapter 1

Introduction

Chapter 1

Introduction

In this chapter, I introduce and motivate my research project. I present the research context, and introduce the research questions and our approach. The chapter is organized as follows: 1) I first introduce the batik industry in Indonesia, 2) I then discuss sustainability issues in the Indonesian batik industry, 3) furthermore, I explain the role of ecopreneurs in achieving more sustainable batik SMEs, 4) I then discuss drivers, barriers, and facilitators of implementing sustainability practices, 5) I discuss the role herein of intersections of identities in ecopreneurs, and 6) finally, I present an outline of the dissertation.

1.1. Indonesian Batik ecopreneurs

This PhD project zooms in on batik entrepreneurs in Indonesia. The Indonesian batik industry offers appealing research opportunities to study sustainability issues concerning SMEs, because many ecological issues in Indonesia are caused by the batik industry. Simultaneously, the country is well-known for its cultural diversity and the significant socio-cultural contributions of batik to the Indonesians, on which many Indonesian people economically rely.

Context-wise, Indonesia is an example of a Southeast-Asian, developing country, which encounters considerable challenges in becoming more ecologically sustainable. Indonesia has many environmental problems, such as air pollution, and a lack of access to safe and clean water, renewable energy, and sanitation (USAID, 2022). In addition, climate change has slowed down Indonesia's sustainable development due to the increasing frequency and severity of natural disasters including floods, droughts, and landslides (USAID, 2022). On the bright side, the country is characterized by high levels of cultural diversity and unique social dynamics amongst the population (Indonesia Investment, 2019). This is evident from its well-known characteristic of being the largest archipelago in the world with over 17,000 islands, which are occupied by over 270 million people with more than 700 languages and dialects, distributed over 1,300 ethnic groups, and home to nine World Heritage sites (Bevan, 2021). With such socio-cultural diversity, the Indonesian government has recognized the potential of the creative industry. The creative industry, where culture, technology, science, and commerce are connected by human creativity, is strongly related to social and human development (Cercleux et al., 2016). In addition, the industry is dominated by more women (56.6 %),

compared to men (43.4 %) (The Ministry of Tourism and Creative Economy, 2020). Since women dominate the industry, feminine qualities (e.g., caring for others and the environment, including other's ideas and backgrounds in the business, taking care of kinship relations and bearing in mind the prospects of the families involved in their enterprises) are often associated with the entrepreneurs in the industry (Rachman, 2016 a, b).

Within the creative industry in Indonesia, the batik industry is tightly associated with Indonesian culture. BBC News (2012) defined batik as "a traditional Indonesian method of decorating fabric using wax to create patterns on cloth that is dyed." Batik is a product of art and culture, which was traditionally used to reflect the Royal society (Budiono & Vincent, 2009). Nowadays, batik represents the identity and culture of a broader Indonesian society through a culturally meaningful piece of art used for daily activities from childhood until death. Batik fabrics are used to carry babies in a sling, for business and academic settings, for wedding rituals, to wrap the dead during funerals, and many more (UNESCO, 2009). Besides its roles in Indonesian culture, the batik industry is often associated with family business practices and inherited batik skills (Global Business Guide Indonesia, 2016). These are reasons why UNESCO recognized Indonesian batik as a World Intangible Cultural Heritage of Humanity in 2009. From the explanations above, it can be understood that culturally, socially, and economically, the batik industry contributes significantly to the nation by producing creative products with cultural values. At the same time, it also contributes significantly to ecological unsustainability.

1.2. The Indonesian batik industry and sustainability issues

Recent studies found that the batik industry in Indonesia seems to face serious ecological challenges (Riyanto et al., 2018; Indrayani, 2019). In particular, the ecological impact stemming from the batik industry has become the greatest concern of NGOs such as Greenpeace. Excessive use of water and wax, inefficient use of energy, the use of chemical dyes, use of harmful bleaching agents, above standard level CO₂ emissions, and poor waste treatment are the main problems in batik SMEs (Rahmadyanti et al., 2017; Riyanto et al., 2018; Indrayani, 2019). Such inefficiency can impede ecological sustainability in the industry. Irresponsible production processes in the batik industry can lead to environmental degradation, e.g., accumulated pollution (of water, soil, and air) and the production of waste generated from unused raw materials, as well as higher health risks - especially for the crafters -, e.g., respiratory problems, skin irritations, and cancer, and economic losses, e.g., as a result of high production costs (Rahmadyanti et al., 2017; Riyanto et al., 2018; Indrayani, 2019). Given the fact that the batik industry seems to play a

role in creating ecological (un)sustainability through ecopreneurship practices, it is crucial to investigate the individual drivers (motivation and identity) and institutional barriers and facilitators that encourage or discourage batik entrepreneurs to adopt certain ecopreneurship practices, i.e., cleaner production, as to better understand their ecological and entrepreneurial behavior.

1.3. The role of ecopreneurs in achieving greater sustainability

In this sub-section, we aim to explain why sustainability is important and to provide an introduction to the concept of ecopreneurship¹. Moreover, how ecopreneurship can be a solution to environmental degradation and the role of the ecopreneurs in fostering sustainability, particularly in small and medium sized enterprises (SMEs), is discussed.

Although a necessity, achieving ecological sustainability is a major challenge (Arora, 2018). Ecological sustainability entails “meeting human needs without compromising the health of the ecosystem” (Morelli, 2011, p. 5). Researchers have observed that the quality of the environment is decreasing rapidly as a result of various developments (Arora, 2018), including urbanization, economic growth, and energy overconsumption, which appears to be especially the case in Indonesia (Nathaniel, 2020). At the same time, low and middle-income countries, such as Indonesia, face a difficult societal dilemma: on the one hand, economic growth is essential for further societal development. On the other hand, economic growth threatens the ecosystem as it contributes to environmental degradation in the long run. A steady increase in the population has forced humans to conduct more economic activities and to consume more than the environment can bear, which heavily threatens the ecosystem. Basic resources, such as food, fresh water, energy, recreation, and clean air, are becoming less available in the ecosystem due to irresponsible consumption of resources and the disposal of untreated waste, which is polluting the environment. Promoting ecological sustainability means ensuring human survival in the long run and providing the necessary time for the planet to revitalize itself as needed (Arora, 2018). Thus, there is an urgent need to encourage people to consume natural and nature-based resources responsibly. Entrepreneurs, i.e., business owners may have an important role to play in this process. They can adopt ecological entrepreneurship (ecopreneurship) practices in their business to reduce pollution and toxic wastes that could cause environmental degradation.

Ecopreneurship comprises adopting and implementing ecological innovations in, e.g., new product development, the production process, distribution channel design, and marketing. Ecopreneurship can thus be defined as the set of entrepreneurial

initiatives which focus on protecting the environment, e.g., by adopting cleaner production technologies while still generating profit (Dixon et al., 2007). In other words, ecopreneurship refers to the adoption of any eco-friendly initiative by entrepreneurs that affects products/services, the production process, technology, or the organization, whether technical or administrative. Gibbs (2006) adds that ecologically driven entrepreneurship is generally motivated by a broad view of sustainability. Innovative ecological practices are thus key to ecopreneurship (Gibbs, 2006), although the 'greenness' of these innovative practices greatly varies across firms (Triguero et al., 2016). And although the effect of a single SME responding to ecological challenges may be small, their cumulative impact may be considerable due to their essential role in most economies (Yaacob et al., 2015; Leonidou et al., 2017). Although the ecopreneurial firm's business practices focus on eco-friendliness in the first place, it is also fundamentally driven by intentions to provide a better livelihood for people in the future.

The owner-managers' commitment to environmental progress and their strong desire to increase the sustainability of the business is what differentiates ecopreneurship from more traditional business practices (Gibbs, 2006). As the most significant agent of change in their organization, ecopreneurs¹ align their values and beliefs of adopting a proactive, ecologically-oriented business strategy with the enterprise's culture (Gibbs, 2006; Spence et al., 2011). These values include the intention and willingness to put the needs of people, the environment and the community first, and even before their own needs. In adopting innovative business processes, ecopreneurs do not exclusively focus on increasing competitive advantage and profit but also try to resolve environmental issues through their ecological business practices (Forsman, 2013; Kirkwood & Walton, 2010).

Considering the degrading quality of the environment, SMEs should become more sustainable and committed to maintaining ecological sustainability. Considering the importance of taking the social context (Essers & Tedmanson, 2014; Anggadwita et al., 2017) into account when trying to better understand the phenomenon of ecopreneurship, studying the drivers of ecopreneurship as well as the role of the intersections of identities in influencing the entrepreneur's ecopreneurship motivations, and the role of institutional barriers and facilitators, could contribute to a more fine-grained insight into how sustainability can be fostered in entrepreneurs.

1 Ecopreneurs focus on increasing ecological sustainability through the adoption of ecological business practices.

1.4. Drivers, barriers and facilitators of ecopreneurship: The role of the intersection of identities

To perform entrepreneurial behaviors, an individual entrepreneur must have driving forces. A driver activates specific behavior to reach an objective (Luthans, 2011). Drivers vary among and within individuals at different times (Robbins & Judge, 2017). We acknowledge that everyone possesses multiple identities, such as gender, ethnicity, religion, age, and education, that intersect with one another and influence the individual's responses to environmental challenges; therefore, acting as a driver of ecopreneurship. Researchers also found that female and male entrepreneurs have different motivations for entrepreneurship (Ramadani et al., 2017). For example, various researchers have shown that female entrepreneurs are more likely to engage with social and environmental issues than their male counterparts, who appear to be more traditional and economically oriented (Marcus et al., 2015; Hechavarria et al., 2012). In addition, the entrepreneur's values and their contributions to the environment, society, and economic security are influenced by their cultural identity (i.e., ethnicity and religion) (Anggadwita et al., 2017a Dana, 2009) as well as their age and education level (Lee et al., 2011; Hoogendoorn et al., 2019). These motivations and values were also found to play an important role as drivers of ecopreneurship and explain the attitude towards the risks entrepreneurs perceive in adopting sustainable entrepreneurship (Dohmen et al., 2011).

Moreover, besides personal drivers, the (institutional) context in which an entrepreneur lives is argued to influence the entrepreneur's decisions, particularly in making strategic choices. Previous researchers emphasized that gender, age, and education seem to shape the entrepreneur's perceptions of the institutional barriers and facilitators faced in becoming more sustainable (Hoogendoorn et al., 2019; Switch-Asia, 2017). For example, women in a collectivist society like Indonesia tend to seek socio-cultural harmony, and depend on the society's approval of what is considered acceptable and unacceptable behavior (Bastian et al., 2019). Women entrepreneurs face limited access to education and business networks, and this may also result in inadequate knowledge (Bastian et al., 2019), including with respect to how to respond to ecological challenges in business. Moreover, an older adult is often stereotyped as possessing outdated skills and more conservative (Holman & Walker, 2020; Choroszewics & Adam, 2019), which might slow down the shift towards sustainability that requires flexibility and innovative practices. These societal stereotypes seem to suggest that a young male entrepreneur who is highly educated would be more capable of anticipating and eliminating the barriers and have more access to facilitators of sustainability, compared to for instance an elderly female entrepreneur with low education. We are interested to know how these intersections

unfold and play out for the various entrepreneurs active in the batik industry, and to find out how more disadvantaged entrepreneurs in this industry (with perhaps less access to education and other sorts of capital) could be better directed and facilitated in their quest to become more sustainable, through more inclusive and empowering sustainability policies. Accordingly, this PhD project also studies how entrepreneurs' intersections of identities may influence SMEs' sustainable behavior.

1.5. Dissertation outline

This dissertation consists of three studies. We aim to develop a better understanding of the drivers of ecopreneurship in this industry by first synthesizing the existing knowledge on this topic, and then by exploring value-based motivations of Indonesian ecopreneurs in relation to the various intersections of their identities, and finally through obtaining additional insights concerning the external factors, i.e., institutional barriers and facilitators from the perspective of batik entrepreneurs. The main research question guiding this dissertation is:

How do individual motivations of Indonesian batik entrepreneurs and perceived institutional facilitators and barriers play a role in making their businesses more sustainable?

Each study is further explained in the following sub-sections and a summary is provided in Table 1.1.

1.5.1. Chapter 2: What drives ecopreneurship in women and men?

- A structured literature review²

In the first study, we aim to develop a better theoretical understanding of how different forms of gender socialization relate to the adoption of ecopreneurial practices, by integrating three streams of literature: ecological innovation, ecopreneurship, and female entrepreneurship, and ultimately by developing a research agenda. We develop a better understanding of the motivations and barriers as they are experienced by Indonesian ecopreneurs in adopting more ecological practices. Since the industry is dominated by women, we also develop a better understanding of the differences between women and men in relation to their ecopreneurship motivations. Currently, the knowledge about these differences is scattered over various literature streams. Articles extracted from the Web of Science database published between 2008 and 2019 are systematically reviewed. We formulated two research questions, namely: 1.) *What drives ecopreneurship in women and men?* 2.) *How do differences in motivations among women and men influence their ecopreneurship practices?*

2 Published as: Gunawan, A. A., Van Riel, A. C. R., & Essers, C. (2021). What drives ecopreneurship in women and men? A structured literature review. *Journal of Cleaner Production*, 280, 124336

This study contributes to the literature by synthesizing knowledge on drivers of ecopreneurship from three streams of literature, and identifies which drivers are likely to be influenced by gender (-socialization). The study enriches the discussions about ecopreneurship practices in SMEs and female entrepreneurship studies by applying a transdisciplinary approach, summarizing the existing motivational factors, proposing a gender-based conceptual model, and finally creating a research agenda. This study provides further foundations for building more comprehensive theory concerning the differential drivers among women and men while conducting eco-friendly behavior in business.

1.5.2. Chapter 3: The adoption of ecopreneurship practices in Indonesian craft SMEs: Value-based motivations and intersections of identity³

In the second study, we investigate value-based motivations to adopt ecological entrepreneurship (ecopreneurship) practices and delve into how the intersections of social identities such as gender, religion and ethnicity influence these motivations. Value-based motivations are intrinsic values believed in by an individual that makes the individual to adopt certain behaviours (Luthans, 2011; Parks & Guay, 2009; Schwartz, 2012). We took into account the entrepreneurs' intersections of identities which we argued might influence the entrepreneur's decision (Oyserman et al., 2017), including in adopting ecological practices. Within the complex context of Indonesia, an Indonesian entrepreneur will probably possess multiple intersecting identities that must be taken into account when trying to understand their entrepreneuring. However, little is known about how the intersection of identities, e.g., gender, ethnicity, and religion, influence these ecopreneurs' values, especially related to motivations to adopt ecopreneurship practices.

In this study, we conducted an exploratory study, using in-depth interviews with 16 Indonesian ecopreneurs to understand better how the intersections of ecopreneurs' identities influence their value-based motivations to adopt ecopreneurship practices. The study uses Indonesian batik SMEs as the research setting. The interviews are complemented by field observations and the analysis of social media posts. The use of natural dye was the main criterion for selecting SMEs because the dyeing process in the craft sector significantly contributes to environmental degradation or protection. For this study, we formulated two sub-research questions to help us understanding which values motivate ecopreneurs and how the intersections of identities play a role in influencing the entrepreneur's motivational values. The sub-questions are as

3 Published as: Gunawan, A. A., Essers, C., & Van Riel, A. C. R. (2021). The adoption of ecopreneurship practices in Indonesian craft SMEs: Value-based motivations and intersections of identities. *International Journal of Entrepreneurial Behavior & Research*. 27, 730–752.

follows: 1.) *Which values motivate entrepreneurs to engage in ecopreneurship practices?*
2.) *How do intersections of identities influence their motivation?*

The study presented in Chapter 3 contributes to the entrepreneurship literature as it improves our understanding of how intersections of social identities influence ecopreneurs' motivations and decisions to act eco-friendly by connecting motivations, eco-friendly practices, and the intersection of social identities. The study recommends creating more inclusive policies to increase more sustainable behavior in batik entrepreneurs.

1.5.3. Chapter 4: Institutional barriers and facilitators of sustainability for Indonesian batik SMEs: A policy agenda⁴

In the third study, presented in Chapter 4, we recognize that until recently the literature has mainly focused on the economic implications of ecological practices in the batik industry (Al Rasyid & Asri, 2014; Handayani et al., 2019; Rinawati et al., 2013; Yoshanti & Dowaki, 2017). Little attention has been paid within this field to socio-cultural aspects of sustainability. Hence, this chapter aims to get a better insight into how female and male Indonesian ecopreneurs can be encouraged to become more sustainable, with a focus on the ecological and socio-cultural aspects.

To achieve these objectives, we conducted a complementary study with Indonesian ecopreneurs to understand the institutional barriers and facilitators that play a role in becoming a more sustainable batik SME, and to provide policy recommendations for policymakers in the batik industry. Accordingly, for this third study, data from two online focus group interviews (in total eight participants) were collected, while the study also builds on earlier empirical insights obtained from female batik entrepreneurs. The data was analyzed using Nyumba et al.'s (2017) conceptual development technique, which entails a two-stages of coding including initial coding and focused coding. In the initial coding stage, the researcher list emerging ideas and formulate important themes that emerges from the participants' excerpts. In the focused coding stage, eliminates and combine the themes that emerges from the first stage and categorized the initial themes based on the theoretical themes. For this study, three research questions were formulated: (1) *What are the institutional barriers to becoming more sustainable as they are experienced by female and male crafters in Indonesian Batik SMEs?* (2) *What are the institutional facilitators of becoming more sustainable as they are experienced by female and male crafters in Indonesian*

4 Published as: Gunawan, A.A., Bloemer, J., Van Riel, A. C. R. & Essers, C. (2022). Institutional Barriers and Facilitators of Sustainability for Indonesian Batik SMEs: A Policy Agenda. *Sustainability*, 14, 8772.

Batik SMEs? (3) How can Batik SMEs in general, and women-led Batik SMEs in particular, be supported in becoming more sustainable?

The study furthers the sustainable entrepreneurship literature by categorizing ‘the sustainable entrepreneur’ as either “committed” or “follower” entrepreneurs. Moreover, it also advances knowledge by considering the diversity of sustainable entrepreneurs in the batik industry and how their motivations are related to their (institutional) environment and personal values. Because the Indonesian batik industry is dominated by women, this study also provides insights into which institutional barriers and facilitators of sustainability women crafters in a middle-income country such as Indonesia perceive in their business. We suggest that women in this industry could be role models for women’s emancipation, and to acquire a better socio-economic status through their empowering (sustainable) entrepreneurial behavior. For the policymakers in the batik industry, such as the Center of Craft and Batik (BBKB), this study provides recommendations. These recommendations aim at making the Indonesian batik SMEs more sustainable, while taking seriously the diverse categories of the crafters’ identities, e.g., background, gender, age, and education. We provide the recommendation to policymakers to provide better access to networks and resources that could help female entrepreneurs in achieving sustainable growth. Moreover, the recommendations are formulated to encourage women active and inclusive participation in formulating sustainability regulations to support sustainable development in the batik industry.

1.5.4. Chapter 5: Conclusion

The final chapter discusses the common themes of the three studies. The findings from each study will be discussed. In addition, detailed theoretical and practical contributions of this dissertation are presented in the final chapter. The conclusion also includes the lessons learned and key scientific and practical takeaways from the three studies. Finally, recommendations for future studies are formulated based on the findings and the limitations of this dissertation.

Table 1.1 Dissertation Outline

Chapter	Study	Research Questions	Objectives
1	Introduction		
2	What drives ecopreneurship in women and men? - A structured literature review	What drives ecopreneurship in women and men? How do differences in motivations among women and men could influence their ecopreneurship practices?	To develop a better theoretical understanding of how different forms of gender socialization relate to the adoption of ecopreneurial practices, by integrating three streams of literature: ecological innovations, ecopreneurship, and female entrepreneurship, and by developing a research agenda.
3	The adoption of ecopreneurship practices in Indonesian craft SMEs: Value-based motivations and intersections of identities	What motivates entrepreneurs to engage in ecopreneurship practices? How do intersections of identities influence these motivations?	To explore value-based motivations to adopt ecological entrepreneurship (ecopreneurship) practices and investigate how intersections of social identities such as gender, religion and ethnicity influence these motivations.
4	Institutional barriers and facilitators of sustainability for Indonesian batik SMEs: A policy agenda	What are the institutional barriers experienced by female and male crafters in Indonesian Batik SMEs to become more sustainable? What are the institutional facilitators experienced by female and male crafters in Indonesian Batik SMEs to become more sustainable? How can Batik SMEs in general, and women-led Batik SMEs in particular, be supported to become more sustainable?	To explore institutional barriers and facilitators regarding the implementation of sustainability-oriented practices in the Indonesian batik industry, and provide policy recommendations.
5	Conclusion		

Theoretical focus	Research design & method	Variables
Ecopreneurship Drivers of adopting ecopreneurship practices Gender and ecopreneurship	Descriptive qualitative approach: Systematic literature review	<u>Independent variables:</u> Personal values, ecological values, social values, economic values, cultural values <u>Moderating variable:</u> Gender (socialization) <u>Dependent variable:</u> The adoption of ecopreneurship practices
Motivations of ecopreneurship Value-based motivations of pro-environmental behavior Values and identities Gender Religion Ethnicity	Exploratory approach: Semi-structured interviews Field observations Social media analysis	<u>Independent variables:</u> Self-enhancement. Self-transcendence <u>Moderating variable:</u> Gender identity, ethnic identity, religious identity <u>Dependent variable:</u> The adoption of ecopreneurship practices
Achieving sustainability goals in SMEs Threats to sustainability in batik SMEs Barriers to achieving sustainability goals in SMEs Facilitators of sustainability in SMEs Empowerment towards sustainability for women-led SMEs	Exploratory approach: Online focus group discussion Building on the earlier pilot study	<u>Independent variables:</u> Institutional Barriers, Institutional Facilitators <u>Moderating variables:</u> Age, education, gender identity <u>Dependent variable:</u> Sustainability of batik SMEs

Chapter 2

2

What drives ecopreneurship in women and men? A structured literature review⁵

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Abstract

Ever since global warming emerged as an issue and business as usual has invited criticism regarding its ecological impact, entrepreneurs have embedded ecological values in their entrepreneurial practices. Female and male entrepreneurs, however, differ in how they practice entrepreneurship. Differences in motivations could affect how they adopt ecological entrepreneurship (ecopreneurship). By developing a better understanding of the differences in motivation, this study is expected to better explain ecopreneurial behavior. Knowledge of (gendered) drivers of adopting ecopreneurial behavior is scarce and scattered. This study identifies and reviews the literature on gender-based drivers of ecopreneurship from three scientific domains: ecological innovation, ecopreneurship and female entrepreneurship. Articles found in the Web of Science that were published between 2008 and 2019 are systematically reviewed. The outcome of this study is a gender-based conceptual framework, clarifying differences in some drivers and practices of ecopreneurship between female and male entrepreneurs. The article integrates knowledge within the three scientific domains and offers an agenda for future research.

Chapter 2

What drives ecopreneurship in women and men? A structured literature review

2.1. Introduction

Entrepreneurship researchers have shifted their attention towards developing a better understanding of sustainable business practices, including the adoption of ecological entrepreneurship (Kirkwood & Walton, 2010; Gast, 2017). The adoption of more ecological entrepreneurship behavior, such as using cleaner production technologies and fewer (or more sustainable) resources, directly affects the sustainability of a firm, while these innovations may generate benefits in ecological, economic, and social dimensions (Linnanen, 2002). Ecopreneurship (short for ecological entrepreneurship) is a term used by Schuyler (1998), Pastakia (1998), and Schaper (2002) to represent initiatives to reduce the environmental impact of business activities. The ecopreneurial agent, or ecopreneur, is an entrepreneur who is not solely driven by profits but is also concerned about the environmental impact of the business.

Entrepreneurship is often investigated from a masculine perspective (Ahl, 2006; Bruni et al., 2004; Essers & Benschop, 2007). The prototype of an entrepreneur often entails masculine qualities, such as independence, a high need for achievement, dominance, a low need for support and conformity, and high risk-taking propensity (Chasserio et al., 2014). However, as argued by authors such as Ahl (2006), entrepreneurship research should recognize the role of femininity as well.

Entrepreneurship scholars have acknowledged the role of different forms of gender socialization in a business context (Ahmad & Seet, 2010; Brush et al., 2009; Campbell & Mínguez-Vera, 2008; Larrieta-Rubín de Celis et al., 2015), but little is known about how gender socialization influences entrepreneurs' motivations to adopt ecopreneurship practices. Due to possible differences in doing business between female and male entrepreneurs, gender socialization could also explain differences in entrepreneurial decision-making regarding ecological issues (Ahmad & Seet, 2010). Gender-aware research may thus generate new insights, based on the view that business activities are not merely an economic activity but also a social act of value creation (Hechavarria et al., 2012; Hughes et al., 2012). Additionally, although the number of women-owned businesses has been reported to increase substantially (Lukihardianti, 2015), there is no clear understanding of differences in what drives female and male entrepreneurs to adopt ecopreneurial practices.

The aim of this study, therefore, is to develop a better theoretical understanding of how different forms of gender socialization relate to the adoption of ecopreneurial practices, by integrating three streams of literature: ecological innovations, ecopreneurship, and female entrepreneurship, and by developing a new research agenda. The study adopts the systematic literature review framework proposed by Booth et al. (2016). The focus of the present review is on identifying (potentially) different drivers of ecopreneurship amongst female and male entrepreneurs. Articles provided by the Web of Science (WoS) database were selected to accomplish this and analyzed to provide an overview of intrinsic drivers motivating entrepreneurs to adopt ecopreneurship practices, while simultaneously focusing on the role of different forms of gender socialization. By doing so, the chapter integrates them into a conceptual model, which will be provided as a result of this systematic literature review.

This chapter is structured as follows: first, a preliminary conceptual framework of drivers of ecopreneurship is constructed, and then the systematic literature review approach is introduced. Subsequently, the literature is summarized in a conceptual model, and in the conclusion the contribution is highlighted. Finally, an agenda for further research is presented based on gaps identified in the literature.

2.2. Preliminary conceptual framework

To understand the phenomenon of ecopreneurship thoroughly, first it is important to establish what kind of eco-friendly initiatives are considered ecopreneurship practices by various authors in this field. Then, the discussion in this section more specifically delves into what makes ecopreneurs decide to do business in an eco-friendly manner. In the literature, drivers of ecopreneurship have also been discussed from a sociological perspective. To follow-up on this discussion, this chapter discusses current trends in female entrepreneurship literature in the final subsection. Gender socialization is included in the conceptual framework as an important factor that may influence ecopreneurship practices.

2.2.1. Ecopreneurship

Ecopreneurship consists of all environmentally friendly practices that affect products/services, the production process, the technology, and the organization, whether technical or administrative (Huang et al., 2009; OECD, 2011). Gibbs (2006) adds that ecologically driven entrepreneurship is generally motivated by a broad view of sustainability. Although the focus of the firm's business practice is eco-friendliness, it is fundamentally driven by intentions to provide a better livelihood for people in the future. The owner-manager's commitment to environmental progress and a strong desire to increase the sustainability of the

business is what differentiates ecopreneurship from more traditional business practices (Gibbs, 2006).

The ecopreneur, as the agent of change in small and medium-sized enterprises (SMEs), must possess aligned personal values and beliefs to adopt a proactive, ecologically oriented business strategy (Gibbs, 2006; Spence et al., 2011). These values include the desire to put the needs of people, the environment and the community first, and before their own needs. In adopting innovations, ecopreneurs do not merely focus on increasing competitive advantage and profit, but they also try to resolve sustainability issues through their innovations (Forsman, 2013; Kirkwood & Walton, 2010).

Innovation is key to ecopreneurship (Gibbs, 2006). However, the 'greenness' of these innovative practices varies greatly across firms (Triguero et al., 2016). Small firms are generally considered more responsive than large firms in adopting innovations, due to pressure from the value-chain, internal pressure, and pressure from regulatory stakeholders (Darnall et al., 2010). Although the effect of a single SME responding to ecological challenges may be small, their cumulative impact may be considerable, due to their important role in most economies (Yaacob et al., 2015; Leonidou et al., 2017).

2.2.2. Drivers of adopting ecopreneurship practices

The present study identifies drivers of ecopreneurship in entrepreneurship studies through the lens of motivation theory. Shane et al. (2012) argue that the pursuit of entrepreneurial opportunities is a revolutionary process in which the entrepreneur considers many options along the way to come to certain decisions. A decision is made after an opportunity is detected and the entrepreneur's *willingness* to positively evaluate the opportunity is crucial, besides the availability of resources (Shane et al., 2012). Human motivations are thus an important factor in ecopreneurial processes because people differ in how they act on opportunities (Shane et al., 2012). Motivation transforms intentions into actions (Carsrud & Brannback, 2011), as motives drive an individual's behavior to survive, succeed, and avoid failure. Carsrud & Brannback (2011) distinguish two types of theories that explain behavior, namely, a) motivation theories (push factors) and b) incentive theories (pull factors). Motivation theories argue that internal stimuli motivate individuals to behave in a specific way, while incentive theories argue that rewards also motivate individuals to perform certain actions. Similarly, organizational behavior scholars classify drivers into two major categories: intrinsic and extrinsic drivers (Luthans, 2011; Pastakia, 2002; Kim et al., 2015; Lozano, 2015; Sangle, 2010; Lee et al., 2016). Intrinsic

drivers are internally generated, while extrinsic drivers are provided by others (or agents) (Luthans, 2011). Many drivers have both intrinsic and extrinsic components (Luthans, 2011).

Drivers of ecopreneurship can also be viewed from a sociological perspective, in the sense that the decision-making process of the entrepreneur is influenced by society (Kirkwood & Walton, 2010). Ecopreneurs are part of society and their embeddedness in society forms their values and influences their behavior. Kirkwood & Walton (2010) add that the sociological perspective implies taking into consideration the decision maker's background, personal views on the environment and often their families and how they influence their motivations to engage in ecopreneurship. Thus, it is important in studying drivers of ecopreneurship to consider how entrepreneurs as individuals are embedded in a social system.

2.2.3. Gender and ecopreneurship

Entrepreneurship scholars have recently extended their focus to also include gender issues (Bruni et al. 2004). Bruni et al. (2004) emphasized that previous studies in female entrepreneurship literature often discussed women as a second sex entrepreneur, implying that women are often seen as "the others" in business world. Women often comply with male standards because masculinity is the norm in entrepreneurship practice, compelling female entrepreneurs to behave in a more masculine manner. Various researchers recommend studying entrepreneurship from a feminist perspective, however, to increase awareness of the gendered and exclusive connotation of entrepreneurship, and the ways this affects the identities of female (and male) entrepreneurs (Brush, 2009; Ahl, 2006; De Bruin et al., 2007; Ahl & Marlow, 2012; Hughes et al., 2012).

Studies by Marcus et al. (2015) and Hechavarria et al. (2012) show that female entrepreneurs are more likely to engage with social and environmental issues compared to their male counterparts, who are more traditional and economically oriented. Hechavarria et al. (2012) therefore suggest to further investigate gender and value-driven differences in other types of entrepreneurial activities, such as opportunity- and necessity-driven entrepreneurship.

A driver activates specific behavior to reach an objective (Luthans, 2011). Drivers vary among and within individuals at different times (Robbins & Judge, 2017). Understanding drivers of ecopreneurship is critical because it could help researchers to better understand and predict ecopreneurial behavior (Paulraj, 2009). The following research questions, guiding the study, are aimed at developing a more

comprehensive understanding of what drives ecopreneurship based on existing literature in three research domains, namely, the adoption of ecological innovations, ecopreneurship, and female entrepreneurship:

RQ1. What drives the adoption of ecopreneurship practices?

RQ2. How are (the effects of) these drivers influenced by the gender socialization of the ecopreneur?

Gender socialization is expected to influence the relationship between drivers and the adoption of ecopreneurship practices. Gender –which pertains to various forms of femininity and masculinity- is constructed within a society through cultural norms, education and experiences, which are encountered during the lifespan of the individual. Thus, it raises the question of how these social interactions form an ecopreneurial identity and influence the drivers to adopt ecopreneurship practices. The intended contribution is to develop a conceptual framework and to propose an agenda for future research in the domain of female entrepreneurship, focusing on what drives female entrepreneurs to engage in ecopreneurship practices.

2.3. Methodology

A systematic literature review (Booth et al., 2016) was conducted, which entails a ‘snapshot’ of existing knowledge at a particular point in time. It improves narrative reviews as it provides new insights. This study uses scientific articles from 2008-2019. According to Klewitz & Hansen (2014), research on sustainability-oriented innovation in SMEs is still developing. It started in the mid-nineties with a limited number of publications, mainly from 2008 to the present. This is why previous entrepreneurship studies, such as Klewitz & Hansen (2014), Sandin & Peters (2018) and Zhang et al. (2019) only considered peer-reviewed articles published recently. Systematic reviews aim to monitor and capture emerging knowledge within a specific research area and are designed to be updated periodically to look for new evidence (Booth et al., 2016). A systematic literature review improves communication among scholars regarding the theoretical foundations of a study (clarity), satisfies internal validity requirements (internal validity), and improves the transparency and governance of the study (auditability) (Booth et al., 2016; Klewitz & Hansen, 2014). The present study uses Boolean logic to appropriately combine search terms and identify relevant literature to be used in this study. Boolean operators such as AND, OR, NOT was used.

2.3.1 Data collection and data processing

To identify keywords related to the research questions used in this study, relevant literature on subjects such as ecological innovation, ecopreneurship, and female entrepreneurship is discussed. Ecological innovation was chosen, first because innovation is at the heart of entrepreneurship and, second, it is an important means to reach sustainability (Klewitz & Hansen, 2014). The ecopreneurship domain was chosen due to its focus on SMEs, which is in line with this study. Female entrepreneurship was chosen because in this domain discussions take place about how women (and men) practice entrepreneurship and, more specifically, ecopreneurship.

The search terms were identified based on a preliminary literature review. The systematic review started by identifying academic articles by combining keywords such as “adoption”, “ecological”, “innovation”, “entrepreneurship”, “small medium enterprises”, “women”, and “motivation”. Because this study aims to integrate knowledge from three research streams and include “adoption”, “motivations”, “women”, and “SMEs” as key topics, six keyword strings with different word combinations were used to include articles that might not appear using longer keyword strings. This approach is similar to previous systematic review studies in which two strings of keywords were used to search for articles related to a research topic (Jia et al., 2020; Williams et al., 2017). An example of the keyword strings used is: TS = (ecological OR environmental OR green OR sustainable AND entrepreneurship OR business* OR enterprise*). The first keyword string was used to identify articles discussing how ecological innovation is adopted in (any type of) business. The second keyword string aimed to identify articles investigating eco-friendly entrepreneurship practices. The third keyword string was intended to identify articles on ecopreneurship that focus on SMEs (context). The fourth keyword string was aimed to highlight articles, which discuss how entrepreneurs are motivated to adopt ecopreneurship practices. The fifth keyword string was used to focus on how ecopreneurship is practiced among different genders. Finally, the last keyword string, combining gender and motivations in relation to ecopreneurship, was intended to capture articles that discuss both topics within the same study.

The Web of Science (WoS) database was chosen because it has strict inclusion rules. Therefore, only influential, relevant, and credible information is included. Relevant articles were identified based on: language (English), document type (articles), year of publication (2008 – 2019), WoS category, source title, full text, and topic. A summary of how the articles in this study were identified is provided in Figure 2.1.

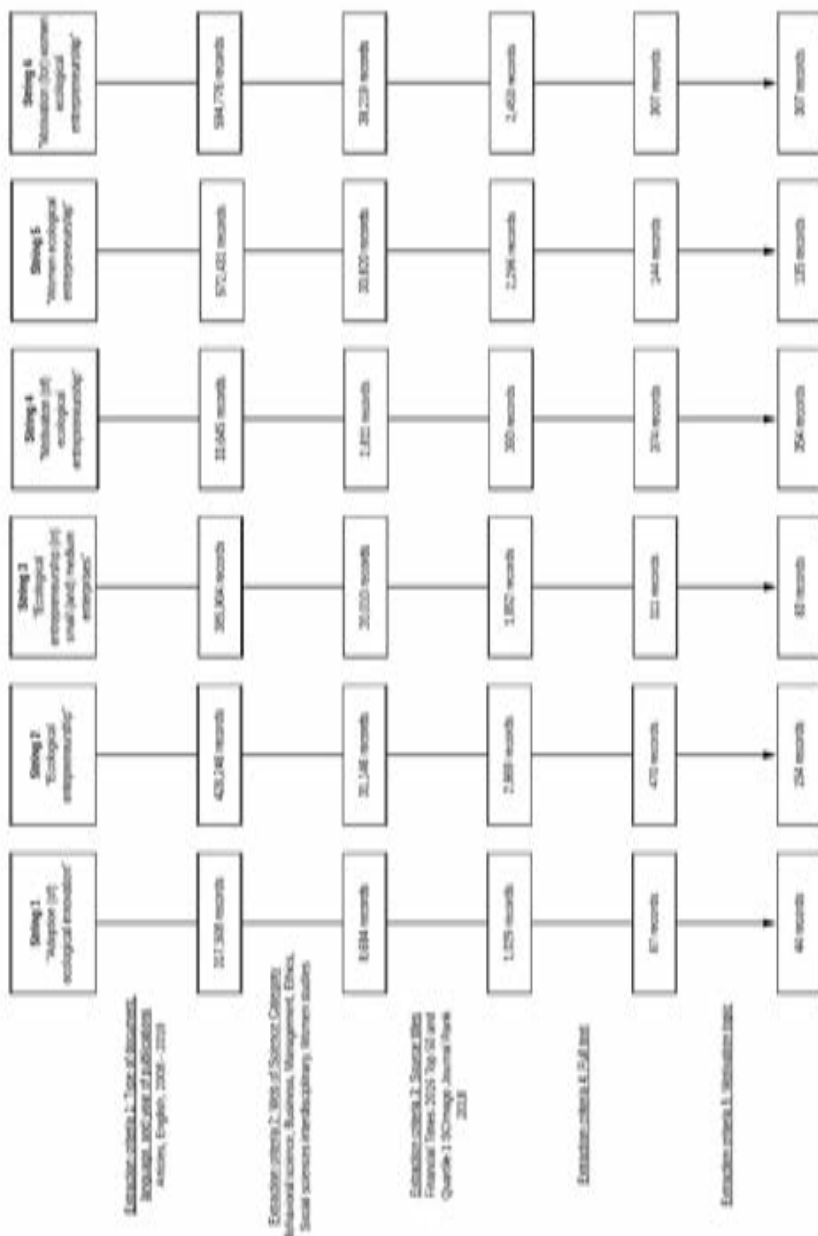


Figure 2.1. Systematic review process

Step 1. English was selected as the language of the articles, because most academic articles are published in English. As suggested by Bocconcelli et al. (2018) and to ensure coverage of the most recent trends or phenomena in innovation and entrepreneurship research, this study considered articles published within the past 12 years.

Step 2. The second step of the extraction process included selecting the WoS categories such as management, business, women studies, and ethics. These categories were chosen because this study focuses on drivers of entrepreneurship (commonly found in the business management domain), gender (commonly found in women's studies) and ecological innovation, which are closely related to ethical behavior.

Step 3. In the third step of the extraction process, the source titles included in this study were limited to journals in management and business studies. This study used the SCImago journal ranking to select first quartile journals (SCImago, 2007). The Financial Times Top 50 List was used to expand the selection of journals that are not included in the SCImago journal rank list, because the topic is relatively new and relatively seldom discussed in the literature.

Step 4. Only articles of which the full texts were available were selected to ensure the accessibility of the articles. EndNote was used to manage the full text copies of the articles.

Step 5. In the last step of the extraction process, the articles were narrowed by "motivation" term as the main topic in the content of the article. Only the most relevant academic articles that fulfilled the criteria of inclusion were considered. The objectives for analyzing the content of the articles are to identify factors motivating the adoption of ecopreneurial practices and to establish how gender socialization influences these drivers. The study only selected articles, which included drivers and/or gender issues. Duplications and irrelevant content among the results obtained from the six keyword strings were deleted from the list, and the remaining 35 articles were considered for further review.

2.4. Results

The results are discussed in two parts: a descriptive analysis and a thematic analysis. The descriptive analysis explains the characteristics of the articles. Trends, type of paper, country of research, research models, and the used research methods are reported. The thematic analysis briefly explains the 17 categories of drivers in the adoption of ecopreneurship and more in-depth on the drivers, which are expected to be influenced by gender socialization. This study compared and summarized

drivers identified in ecopreneurship, drivers of ecopreneurship, and gender-related entrepreneurship studies. The drivers identified in the studies were categorized based on their common terms used in the literature. The occurrence of these drivers is summarized in Table 2.1.

Table 2.1. Drivers of the adoption of ecopreneurship

Authors	Year	Country of research	Research methods
Arend	2014	USA	Survey
Bendell	2017	USA	Mixed methods
Boiral, Henri, & Talbot	2012	Canada	Survey
Boiral, Raineri, & Talbot	2018	Canada	Survey
Cambra-Fierro, Hart & Polo-Redondo	2008	Spain	Case study
Collins, Roper, & Lawrence	2010	New Zealand	Survey
De Lange	2013	USA	Literature review
Haddock-Fraser & Fraser	2008	UK	Secondary data
Haddock-Fraser & Tourelle	2010	UK	Secondary data
Hechavarria, Terjesen, Ingram, Renko, Justo, & Elam	2017	GEM	Secondary data
Hoogendoorn, van der Zwan, & Thurik	2019	33 countries	Survey
Kaesehage, Leyshon, Ferns, & Leyshon	2019	UK	Mixed methods
Kehbila, Ertel, & Brent	2009	African countries	Survey
Kiatkawsin & Han	2017	South Korea	Survey
Kirkwood & Walton	2010	New Zealand	Case study
Littlewood, Decelis, Hillenbrand, & Holt	2018	27 EU members, Switzerland, and Norway	Survey
Lozano	2015	North America, Western Europe	Interview
Marcus, MacDonald, & Sulsky	2015	Canada	Survey
Meek, Pacheco, & York	2010	USA	Secondary data
Papagianakis, Voudouris, & Lioukas	2014	Greece	Case study
Paulraj	2009	USA	Survey
Paulraj, Chen, & Blome	2017	Germany	Survey
Pederson & Gwordz	2014	Nordic countries	Survey
Revell, Stokes, & Chen	2010	UK	Survey
Rodgers	2010	UK	Case study
Sajjad, Eweje, & Tapin	2015	New Zealand	Interview
Sangle	2010	India	Mixed methods
Schaltegger & Horisch	2017	Australia, Belgium, France, Germany, Hungary, Japan, South Korea, Spain, Switzerland, USA	Survey
Spence, Gherib, & Biwole	2011	Canada, Tunisia, Cameroon	Case study
Stadtler & Lin	2018	US	Secondary data
Thurner & Proskuryakova	2014	Russia	Secondary data
Uecker-mercado & Walker	2012	USA	Interview
Uhlener, Berrent-Braun, Jeurissen, & de Wit	2012	Netherlands	Survey
Williams & Schaefer	2013	UK	Interview
Windolph, Harms, & Schaltegger	2014	Germany	Survey

Personal values	Competitiveness	Ecological	Economic	Social	Family	Stakeholders pressure	Culture
X							
						X	
		X	X	X		X	
X							
X							
X						X	
						X	
							X
		X	X	X			
		X		X			
X							
					X		
		X	X	X		X	
X		X		X			
					X	X	X
X		X				X	
X	X		X				
						X	
						X	
			X				
				X			
						X	
						X	
X			X			X	
	X						
X		X		X			
X	X		X			X	X
			X		X		
X		X		X		X	
	X						

Table 2.1. (continued) Drivers of the adoption of ecopreneurship

Authors	Year	Country of research	Research methods	Regulations
Arend	2014	USA	Survey	
Bendell	2017	USA	Mixed methods	X
Boiral, Henri, & Talbot	2012	Canada	Survey	
Boiral, Raineri, & Talbot	2018	Canada	Survey	
Cambra-Fierro, Hart & Polo-Redondo	2008	Spain	Case study	X
Collins, Roper, & Lawrence	2010	New Zealand	Survey	
De Lange	2013	USA	Literature review	
Haddock-Fraser & Fraser	2008	UK	Secondary data	
Haddock-Fraser & Tourelle	2010	UK	Secondary data	
Hechavarria, Terjesen, Ingram, Renko, Justo, & Elam	2017	GEM	Secondary data	
Hoogendoorn, van der Zwan, & Thurik	2019	33 countries	Survey	
Kaesehage, Leyshon, Ferns, & Leyshon	2019	UK	Mixed methods	
Kehbila, Ertel, & Brent	2009	Africa	Survey	X
Kirkwood & Walton	2010	New Zealand	Case study	
Littlewood, Decelis, Hillenbrand, & Holt	2018	27 EU members, Switzerland, and Norway	Survey	
Lozano	2015	North America, Western Europe	Interview	X
Marcus, MacDonald, & Sulsky	2015	Canada	Survey	
Meek, Pacheco, & York	2010	USA	Secondary data	X
Papagianakis, Voudouris, & Lioukas	2014	Greece	Case study	
Paulraj	2009	USA	Survey	
Paulraj, Chen, & Blome	2017	Germany	Survey	
Pederson & Gwordz	2014	Nordic	Survey	
Revell, Stokes, & Chen	2010	UK	Survey	
Rodgers	2010	UK	Case study	
Sajjad, Eweje, & Tapin	2015	New Zealand	Interview	
Sangle	2010	India	Mixed methods	
Schaltegger & Horisch	2017	Australia, Belgium, France, Germany, Hungary, Japan, South Korea, Spain, Switzerland, USA	Survey	
Spence, Gherib, & Biwole	2011	Canada, Tunisia, Cameroon	Case study	
Stadtler & Lin	2018	US	Secondary data	
Thurner & Proskuryakova	2014	Russia	Secondary data	
Uecker-mercado & Walker	2012	USA	Interview	
Uhlaner, Berrent-Braun, Jeurissen, & de Wit	2012	Netherlands	Survey	
Williams & Schaefer	2013	UK	Interview	
Windolph, Harms, & Schaltegger	2014	Germany	Survey	

	Branding	Market	Legitimacy	Orientation	Attitude	Risk Management	Capabilities	Leadership
							X	
							X	
	X							
			X					
	X	X						
	X							
						X		
	X							
	X							X
		X						
			X	X		X		
					X			
			X					
		X						
			X	X				
		X	X					

2.4.1. Descriptive analysis

Over the years 2008 – 2019, the graph shows a fluctuating trend, with fewer than ten articles published each year. Descriptive statistics are provided in Fig. 2.2.

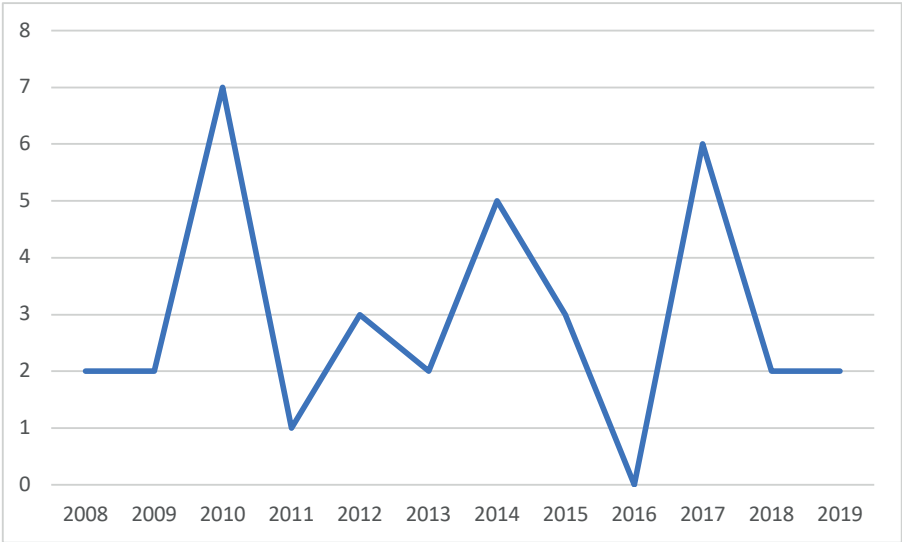


Figure 2.2. Distribution of publications per year

Furthermore, the articles were analyzed in terms of the research methods used in the study. The quantitative analysis of data collected via a survey is found to be the most popular approach among the 35 articles (16 articles), as shown in Fig. 2.3. Other analytical approaches were also found, such as analyzing qualitative data through case studies (five articles) and interviews (five articles), and the use of secondary data (five articles), mixed methods (three articles) and a literature review (one article).

The analysis further shows that quantitative designs were frequently chosen to study the phenomenon (21 articles), followed by qualitative designs and the combination of qualitative and quantitative designs; respectively, 11 articles and three articles (see Table 2.2). From these findings, it can be concluded that within the 35 articles on the topics of gender and drivers of ecopreneurship, empirical data (34 articles) are mainly used to investigate the phenomenon, whereas a conceptual approach is the least used (one article) (see Table 2.3).

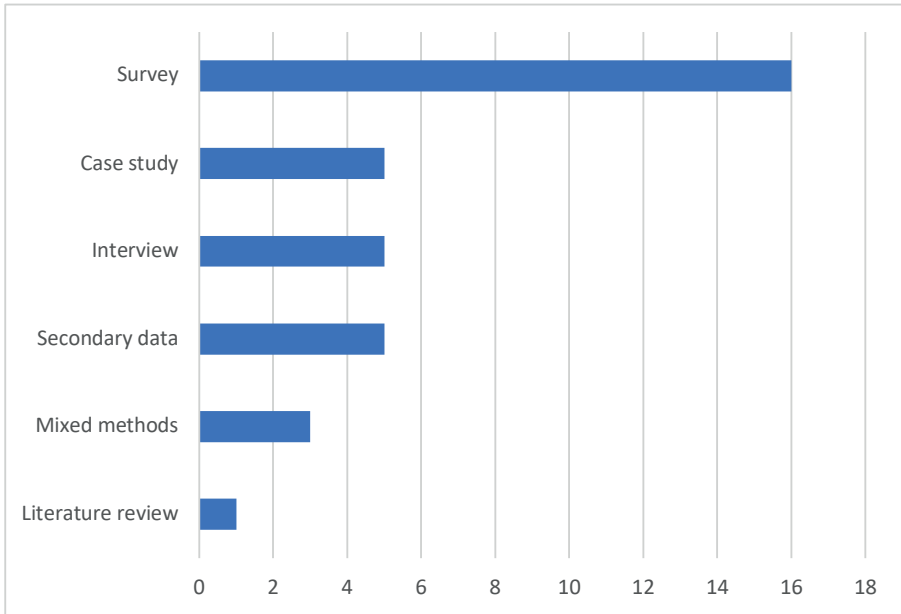


Figure 2.3. Distribution of types of data

Table 2.2. Research models

Research models	Occurrence
Qualitative	11
Quantitative	21
Qualitative & Quantitative	3

Table 2.3. Types of research

Type of article	Occurrence
Empirical	34
Conceptual	1

In terms of the country of origin, among the 29 articles that fulfilled the selection criteria of this study, 11 countries were identified: United States of America (USA) (seven articles), United Kingdom (UK) (six articles), New Zealand (three articles), Germany (two articles), and Canada (three articles). Spain, the Netherlands, South Korea, Russia, India, and Greece, were represented by one article each. The analysis showed that six articles used multiple countries as the focus. This means that developing countries in Southeast Asia, such as Indonesia, are still underrepresented. The distribution of countries is shown in Figure 2.4.

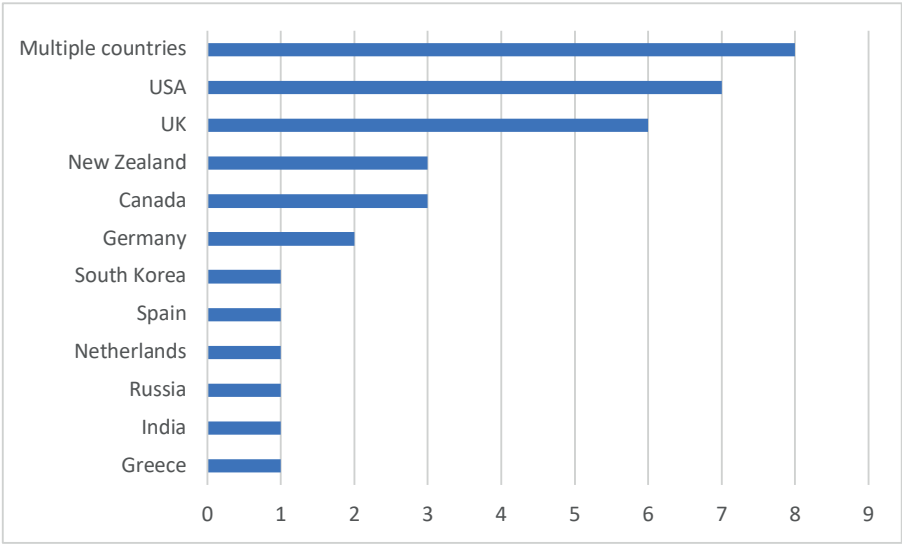


Figure 2.4. Distribution by countries

2.4.2. Thematic analysis

Stakeholder pressure was found to be the most influential driver of adopting ecological initiatives in business (Boiral et al., 2012; de Lange, 2013; Meek et al., 2010; Papagiannakis et al., 2014; Paulraj et al., 2017; Pedersen & Gwozdz, 2014; Sajjad et al., 2015; Sangle, 2010; Uecker-Mercado & Walker, 2012). Stakeholders are defined as “any group or individual who can affect or is affected by the achievement of an organization’s objectives” (Sajjad et al., 2015, p. 646). Stakeholders include customers, the community, top management, government, NGOs, suppliers and investors, among others (Sajjad et al., 2015; Qin et al., 2019).

Pedersen & Gwozdz (2014) further emphasize that increased market pressure can also stimulate the search for opportunities for environmental compliance. Consequently, market pressure is considered a major driver because customers have significant power in buying or boycotting a product or company, which will affect organizational performance (Sajjad et al., 2015). Although Collins et al. (2010) found that brand and reputation are key drivers for sustainable initiatives, their findings suggest that market pressure is often implicitly expected – even if it is not actually felt. To conclude, stakeholder pressure appears to be a key motivator of ecopreneurship (Uecker-Mercado & Walker, 2012).

Stakeholder pressure is important, but especially institutional stakeholders may not induce gender-specific effects. Some of the other types of stakeholders, such as family, employees, and the community to which the entrepreneur belongs, may, however, have gender-specific effects. Unlike institutional and business-related stakeholders, these 'gendered' stakeholders are expected to influence the ecopreneur personally.

In the case of SMEs, the entrepreneur's personal goals and values are major influencers that determine the firm's goals and behavior (Schaltegger, 2010). Personal values are defined as "an enduring belief that a specific mode of conduct or end state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence" (Marcus et al., 2015, p. 462). Moreover, this study agrees with the notion that ecopreneurs are entrepreneurs who act based on the triple principles of sustainability: ecology, society, and economy (Dixon et al., 2007; Kirkwood & Walton, 2010). Ecological values drive the intention to minimize negative ecological impact and to maintain the natural environment upon which life depends (Marcus et al., 2015). Social values show "a dominant concern related to the well-being of people both individually and collectively" (Marcus et al., 2015, p. 462). Economic values drive behavior intended to maximize financial benefits and profit (Marcus et al., 2015). Finally, family values focus on wellbeing of family members, as well as on caring for their opinions (Kirkwood & Walton, 2010). Existing literature shows that differences between female and male entrepreneurs occur in these five value drivers of ecopreneurship: personal values, ecological values, economic values, social values, and family values (Zelezny et al., 2000; Boohene et al., 2008; Hechavarria et al., 2017; Buil-Fabregà et al., 2017). Female ecopreneurs are supposedly more strongly motivated by factors such as personal values, society, ecology, and family values, compared to their male counterparts. Including family values in this study is relevant because for female entrepreneurs, family embeddedness of the business will often directly influence how the entrepreneurial process unfolds (Brush et al., 2009). Propositions about the roles of these drivers are formulated from the personal perspective of the ecopreneur. Consequently, the other 12 categories of drivers, namely, stakeholder pressure, organizational culture, regulation, branding, market, legitimacy, orientation, risk management, attitude, capabilities, and leadership, are considered non-personal, i.e., organizational drivers (see Table 2.1).

2.4.2.1. Motivations of ecopreneurship

Arend (2014) emphasizes the importance of studying motivations in SMEs, as sustained and sincere motivations have a positive effect on the implementation of eco-friendly initiatives, especially when the SME has a long-term relationship with its community and its environment. There is evidence that SMEs with genuine

motivations supported by relevant capabilities are more likely to be successful in adopting ecological initiatives (Arend, 2014).

2.4.2.1.1. Personal values

Spence et al. (2011) investigated drivers of adopting ecological innovations from the entrepreneur's perspective. They studied 44 SMEs in Canada, Tunisia, and Cameroon. They report that entrepreneurs' personal values are crucial drivers and found that normative values were considered important by entrepreneurs in Canada as they conformed to social and environmental pressure, making it part of their responsibility to give something back to society (Spence et al., 2011). Entrepreneurs with high ethical values believe that it is the 'right thing to do' to respond to environmental issues (Paulraj, 2009).

Founders of SMEs often build their firms based on their personal ideology or philosophy, which is in contrast with managers or leaders in large firms (Williams & Schaefer, 2013). For these reasons, personal ethics and business ethics may be more closely aligned in SMEs than in large firms, suggesting that in SMEs conditions are better for the adoption of ecopreneurship practices (Williams & Schaefer, 2013). Furthermore, management's ideology as well as personal values and aims have a direct or indirect effect on the company's behavior (Cambra-Fierro et al., 2008). Therefore, it is concluded that when the decision makers of the firm personally feel ecologically responsible, it is most likely that the firm will adopt ecopreneurship practices.

Proposition 1a. Personal values, especially those related to feeling responsible for the environment, motivate the adoption of ecopreneurship practices in SMEs.

2.4.2.1.2. Ecological values

Boiral et al. (2012) found that the desire to reduce pollution is an important driver for small Canadian manufacturing firms to adopt ecological values. Ecological drivers also include ecological responsibility and environmental conservation (Kehbila et al., 2009). Moreover, "individuals with strong environmental values will have a heightened need to pursue proactive initiatives that lessen the firm's environmental impact and to take precautionary measures when the overall environmental impact of a given action is uncertain" (Marcus et al., 2015, p. 464). What drives ecopreneurs is similar to what drives entrepreneurs in general, apart from the ecological drivers (Kirkwood & Walton, 2010). Fighting against climate change and pollution are thus examples of ecological drivers of ecopreneurship practices (Ozaki, 2010). Feeling responsible, having genuine concern and showing self-interest regarding the environment also

drive the adoption of ecopreneurship practices (Paulraj et al., 2017; Uecker-Mercado & Walker, 2012; Kiatkawsin & Han, 2017). Managers choose innovative and proactive ecological actions to make their business sustainable (Uecker-Mercado & Walker, 2012). Fighting against climate change, reducing pollution, and nature conservation are motivated by ecological values that focus on protecting the environment.

Proposition 2a. Ecological values, focusing on protecting the environment, strongly motivate the adoption of ecopreneurship practices in SMEs.

2.4.2.1.3. Economic values

Ecological entrepreneurs are mainly motivated by economic benefits and/or ecological reasons (Kaesehage et al., 2019). Although some researchers found that economic values do not have a direct influence on small firms' environmental actions (Boiral et al., 2012), other studies found the opposite. According to Paulraj (2009), owners of firms that fall into the competitive category believe that by maximizing their environmental investments and capabilities, they enable the potential of long-term profits through which they improve performance. Uecker-Mercado & Walker (2012) mention examples of financial benefits from environmental performance related to lower production and service costs. Specifically, they mention cost savings, risk reduction, private and public grants, and tax incentives. Similar findings by Revell et al. (2010) also lead to 'pull' factors, such as potential costs savings resulting from energy and resource efficiency. To conclude, business owners are motivated to embed ecological initiatives in their business with the aim to gain financial benefits such as potential long-term profits, costs savings, and government incentives.

Proposition 3a. Economic values, particularly related to gaining financial benefits from ecological initiatives, motivate the adoption of ecopreneurship practices in SMEs.

2.4.2.1.4. Social values

Social values have become more salient in business. Rodgers (2010) suggests that ecopreneurs often view their business as a vehicle of social change rather than just a source of income. Williams & Schaefer (2013) also support this argument and argue that encouragement and sharing ideas with people outside the organization may motivate managers to adopt green practices. Knowledge sharing may drive firms to be more environmentally responsible. The strong relationship between society and ecopreneurs confirms Ajzen's Theory of Planned Behavior (Uhlener et al., 2012). For example, SMEs in the South-African automotive industry that adopted ecopreneurship were driven by the improvement of working and living conditions

of the employees as well as by the desire to maintain a positive relationship with the community (Kehbila et al., 2009). Furthermore, Marcus et al. (2015) add that if an individual has strong social values, they tend to maintain positive social relations and improve human well-being. By being eco-friendly, firms respond to societal expectations and demonstrate commitment to overcome climate change issues (Boiral et al., 2012). After all, a firm exists within society and is run by the people living in that society. Thus, ecopreneurs are motivated by social values that improve human well-being.

Proposition 4a. Social values, especially those related to the improvement of human well-being, motivate the adoption of ecopreneurship practices in SMEs.

2.4.2.1.5. Family values

Among the categories identified in the reviewed studies, the concept of 'family influence' spurs curiosity. Society at its smallest scale is the family. Family plays an important role in influencing managers' value systems (Meek et al., 2010). Opinions of family, friends and role models are categorized as 'motivations to comply', implying that nascent entrepreneurs care about the thoughts and opinions of their family, friends, and role models. Ultimately, individuals who are highly concerned about their family are more likely to care about the health of not only their family members but also about the society and the environment the next generations will live in (Meek et al., 2010). Researchers found that family businesses have a higher level of social responsibility compared to nonfamily businesses (Uhlener et al., 2012). This is due to several reasons: (i) family businesses are usually strongly attached to their local community and (ii) they rely heavily on local society as resources for their business operations. Typically, this relationship results from the long-term presence of the family business in the community. Consequently, decision makers in family businesses need to secure the company and family wealth as well as their reputation in society. If the firms do not respond to ecological degradation due to their business practices and have a negative impact on its social and physical environment, it could jeopardize the family welfare. The greater the influence of the family on the individual values, the more likely the firm will engage in eco-friendly activities. Therefore, caring for the opinion of family members, caring about family members' health, and securing their wealth and reputation motivate entrepreneurs to adopt ecopreneurship practices.

Proposition 5a. Family values, particularly focusing on family welfare, motivate the adoption of ecopreneurship practices in SMEs.

2.4.2.2. Differences in drivers to adopt ecopreneurship practices between men and women

A slightly different criterion related to the type of journal is applied to the sixth keyword string, "Motivations (for) Women Ecological Entrepreneurship". Journal criteria were expanded to SCImagojr 2015 Quartile 2 journals to identify more articles including the search term. Even though the journal criteria were loosened, the findings show that knowledge on gender-based drivers in relation to the adoption of ecopreneurship practices in SMEs within the past ten years is still very limited. Gender, motivation, and ecopreneurship are often discussed separately and/or discussed from the perspective of consumers or students.

Studying differences in motivation between the sexes helps build a comprehensive understanding of how values and behavior influence sustainability (Marcus et al., 2015). Although the study of Marcus et al. (2015) did not specifically focus on gender issues, they emphasize that gender plays an important role in influencing sustainable behavior. Interestingly, in their study, Marcus et al. (2015) found that men are more likely to engage in unsustainable actions than women. It can thus be expected that men and women have different degrees of motivation towards the adoption of ecopreneurship. The literature identified significant differences between men and women in terms of personal values, which influence the adoption of a specific business strategy (Boohene et al., 2008). These authors also found that female socially responsible investors (SRIs) are interested in firms that are focusing on social and environmental impact as well as encouraging a proactive response to positively impact the broader society.

Proposition 1b. Compared to men, women are more strongly motivated by personal values in the adoption of ecopreneurship practices in SMEs.

Hechavarria et al. (2017) found that differences exist in how men and women prioritize economic, ecological, and social dimensions of value creation. Femininity and masculinity are socially constructed, rather than biologically given (Hechavarria et al., 2017). These authors found that in a post-materialist society, compared to men, women tend to pursue more intensely social and environmental rather than economic goals. This is because women are more likely than men to practice the 'ethics of care' (Zelezny et al., 2000; Hechavarria et al., 2017; Braun, 2010). The term 'ethics of care' refers to a feminine-oriented value system, which focuses on the interconnectedness between the parties involved in the entrepreneurial activities and acts of nurture (Hechavarria et al., 2017). Female entrepreneurs are often, more than male entrepreneurs, engaged in maintaining relationships and helping others

as well as caring for nature (Hechavarria, 2016). Due to the ethics of care practiced by women and a corresponding desire to protect nature, they are more ecologically concerned compared to men. In addition, the greater tendency in women to engage in societal and environmental initiatives could become evident as women show a greater concern for creating value for society and improving environmental conditions (Buil-Fabregà et al., 2017). Men are argued to be less motivated by ecological values in entrepreneurship practice (Hechavarria et al., 2017). A male entrepreneurial orientation is reflected in the prioritization of money and career. Men are often more motivated by economic benefits such as operational savings and competitive advantage (Zelezny et al., 2000).

Proposition 2b. Compared to men, women are more strongly motivated by ecological values in the adoption of ecopreneurship practices in SMEs.

Proposition 3b. Compared to men, women are less strongly motivated by economic values in the adoption of ecopreneurship practices in SMEs.

Proposition 4b. Compared to men, women are more strongly motivated by social values in the adoption of ecopreneurship practices in SMEs.

Additionally, family plays an important role in forming the identity of an individual. Family is the smallest entity of society where moral and ethical decisions are formed (Boohene et al., 2008). Traditional family values endure, although of course social behavior and values are partially adjusted to the needs of modern life. When children are taught to behave in gender-specific ways, their behavior is often consistent with their sex. This shows that gender socialization influences individuals' gender-specific behavior (Boohene et al., 2008). For example, men are expected to act as head of the household, to protect their family, be assertive and show their masculinity (Boohene et al., 2008). However, women are traditionally more involved in the primary responsibilities of child nurturing, cooking, washing, and other household activities that stress ensuring the survival and wellbeing of the family. Women tend to focus more on the ethics of care, such as nurturing their family members and helping others in the community (Hechavarria et al., 2017). The argument that women are closer to nature leads to the idea that the sustainability of the household might influence the tendency of women to promote eco-friendly business models. Thus, in other words, based on the literature, women raised in femininity and closer to family might be more strongly motivated by family factors than men to adopt ecopreneurship practices.

Proposition 5b. Compared to men, women are more strongly motivated by family values in the adoption of ecopreneurship practices in SMEs.

Finally, culture, ethnicity and religion play important roles in the adoption of ecopreneurship practices due to their ability to shape personality and behavior (Pinillos & Reyes, 2009; Hechavarria et al., 2017). Because cultural norms and beliefs affect an individual's ethical values, they also influence the application of ethics of care or justice in business practices. Hechavarria et al. (2017) discuss two types of societies: materialist and post-materialist societies. Materialist societies stress the importance of achieving financial success by acquiring substantial possessions and a high status (Hechavarria et al., 2017). This implies that entrepreneurs who live in such societies are more likely to highly value financial success in their entrepreneurial activities, whereas entrepreneurs in post-materialist societies may pay more attention to humanism, quality of life, human rights, the environment, love, esteem and self-actualization (Hechavarria et al., 2017). Therefore, the latter may pay more attention to sustainability and be less self-focused. The present study argues that the local culture (ethnicity) and beliefs (religion) that the entrepreneur adopts may influence the effects of drivers towards the adoption of ecopreneurship practices.

To visualize the proposed framework, a conceptual model explaining the relationships between motivations of ecopreneurship and the adoption of ecopreneurship practices moderated by gender differences is presented in Fig. 2.5.

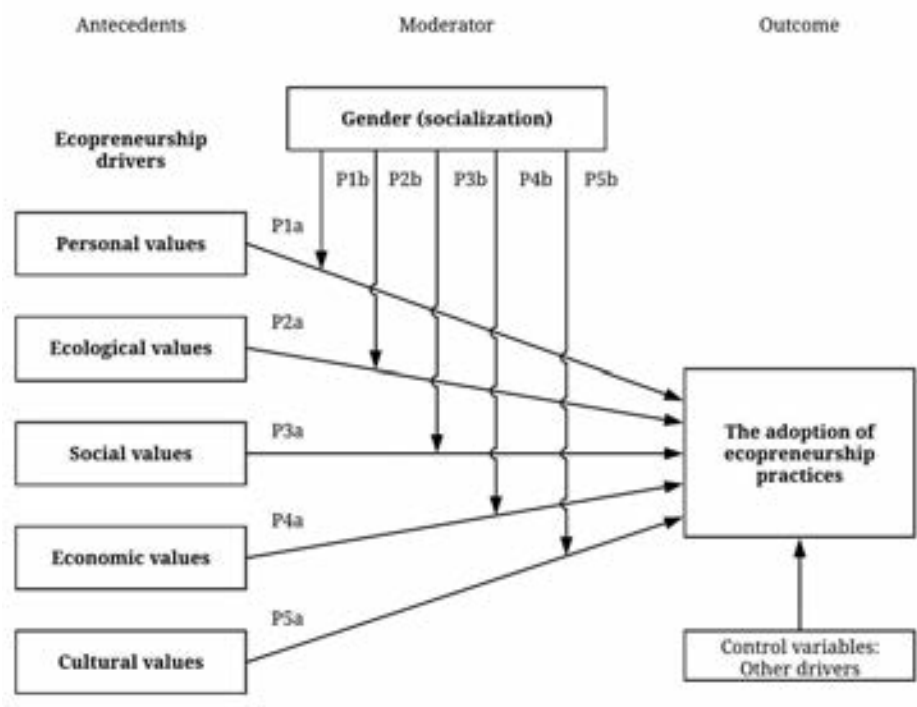


Figure 2.5. Proposed conceptual model

2.5. Conclusion

2.5.1. Summary of the findings

Based on reviewing the literature concerning ecological innovation, ecopreneurship, and female entrepreneurship articles in the Web of Science from the past twelve years, this study arrives at two conclusions. First, it was found that the literature does not pay much attention to gendered drivers of ecopreneurship practices. Studies mainly included gender as a demographic variable to differentiate women and men (biologically), rather than investigating effects of femininity and masculinity on motivational factors. Studies on drivers of ecopreneurship exist, but knowledge that relates motivations to gender (socialization) is limited and scattered. Quantitative designs dominate the landscape. It is therefore concluded that studies, using different methodological approaches to understand gendered drivers are needed.

Second, according to the literature, differences exist in what drives female and male ecopreneurs. Female entrepreneurs are considered to be more strongly motivated by personal, ecological and social, and family values to adopt ecopreneurship practices

compared to their male counterparts. The present study proposes a conceptual model to synthesize the knowledge from the literature. The model also suggests that effects of ecopreneurship drivers may be influenced by differences in gender socialization.

2.5.2. Contributions

This study integrates knowledge on drivers of ecopreneurship from three streams of literature and identifies which drivers are most likely to be influenced by gender (socialization). By practicing a transdisciplinary approach, it enriches theoretical discussions on ecopreneurship in SMEs as suggested by previous researchers. Furthermore, it advances the knowledge in ecological and female entrepreneurship studies by summarizing the existing motivational factors, proposing a gender-based conceptual model, and creating a research agenda. This study provides the foundations for building a more comprehensive theory, including the effects of gender socialization on motivations to adopt ecopreneurship practices. It is critical to better understand the different factors driving the development of ecopreneurship strategies and practices as this could help to predict and stimulate eco-friendly behavior.

This study suggests that gender socialization of entrepreneurs may affect the impact of several categories of motivations to adopt ecopreneurship practices. Policy makers could provide tailor-made programs and regulations that stimulate different categories of entrepreneurs' ecological responsiveness. To achieve the global Sustainable Development Goals (SDGs) in 2030, integrating various goals, for example SDG 5 (Gender Equality) and SDG 12 (Responsible Consumption and Production) may accelerate the progress.

2.5.3. Agenda for future research

First, future research could further explore how entrepreneurial identities influence the motivation to adopt eco-friendly behavior in business. Entrepreneurs' decisions may be influenced by (combinations of) the people they live with, e.g., their family (i.e., the closest community); the education they obtained (experience and formal education); their beliefs, such as religious beliefs (religion); and the local cultural norms that they adopt (ethnicity). Studying the ecopreneur's identities in relation to motivation would provide a more comprehensive understanding of how the entrepreneur's motivations to adopt ecopreneurship practices are built up.

Second, future research could test the proposed conceptual model empirically using quantitative methods. This approach could help establish the generalizability of the framework. Future research could empirically investigate if and how effects on the adoption of ecopreneurship practices of personal, ecological, economic, social,

and family values are moderated by different gender socializations and identities. Additionally, future research could empirically investigate the proposed relationships across groups. Effects of drivers on ecopreneurship behavior could be compared between different categories of entrepreneurs. This could open a new area of research enriching the literature on (gendered) ecopreneurship and motivational theory.

Chapter 3

The adoption of ecopreneurship practices in Indonesian craft SMEs: value-based motivations and intersections of identities⁶

3

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Abstract

Purpose – This article explores value-based motivations to adopt ecological entrepreneurship (ecopreneurship) practices and investigates how intersections of social identities such as gender, religion and ethnicity influence these motivations.

Design/methodology/approach – The study uses primary data from field observations, social media analysis and semi-structured in-depth interviews with 16 owner-managers of small and medium enterprises (SMEs) in the Indonesian craft sector.

Findings – The findings show that self-enhancement, conservation and self-transcendence values motivated the entrepreneurs to adopt ecopreneurship practices. Furthermore, the intersections of identities also tended to influence the entrepreneurs' motivations to adopt ecopreneurship practices.

Research limitations/implications – The sample was limited to the Indonesian craft sector. However, the study has furthered one's understanding of how values motivate ecopreneurship behavior. Conservation values were added to the values known to influence pro-environmental behavior. Furthermore, Schwartz's value theory, strongly associated with Western, individualistic, culture is suggested to be adapted. In Asian – collectivist – cultures, the values driving the entrepreneur are often more community-oriented than individualistic.

Practical implications – This study recommends policymakers to create more inclusive policies to foster the acceleration of sustainable development by equitably including both genders and encourages them to promote local culture, which motivates entrepreneurs in the craft sector to adopt ecopreneurship practices.

Originality/value – The study contributes to the entrepreneurship literature, particularly to the fields of gender and ecopreneurship, by considering the intersections of identities of the ecopreneurs. A research agenda for ecological entrepreneurship and family business researchers is provided.

Chapter 3

The adoption of ecopreneurship practices in Indonesian craft SMEs: value-based motivations and intersections of identities

3.1 Introduction

In developing countries, where small and medium-sized enterprises (SMEs) dominate the business landscape, the issue of detrimental effects on the environment is omnipresent. By adopting ecological entrepreneurship, environmental challenges can be addressed (Pastakia, 2002). Ecopreneurship (or ecological entrepreneurship) is defined as the set of initiatives taken by entrepreneurs to reduce the environmental impact caused by business activities while simultaneously generating profit (Pastakia, 1998; Schaper, 2002). Ecopreneurs are concerned with the impact of their businesses on people and the planet. To increase sustainability, it is important to understand what motivates ecopreneurs and how ecopreneurial practices can be fostered and implemented as a solution to environmental degradation. Stimulating ecological practices in the creative industry, especially in the craft sector, can help accelerate sustainable development and simultaneously preserve culture.

This study adopts the perspective that an individual's background informs their motivations to become an ecopreneur. Although previous entrepreneurship research focused on motivations of ecopreneurship (Dixon et al., 2007; Gibbs, 2006; Kirkwood & Walton, 2010; Pastakia, 2002; Schaper, 2010), little is known about how intersections of identities influence these motivations. The concept of intersectionality refers to the interconnectedness and simultaneity of different axes of social identity, such as gender, religion, and ethnicity, creating interdependent systems of discrimination or disadvantages (Essers *et al.*, 2010). Since intersectionality highlights social differences and emphasizes power dynamics among individuals, institutions, culture and society caused by multiple dimensions of social differences (Atewologun, 2018; Rodriguez et al., 2016), it can be argued to be an appropriate perspective to investigate how the motivations of ecopreneurs are shaped. To investigate this phenomenon, the following research questions were formulated: *What motivates entrepreneurs to engage in ecopreneurship practices, and how do intersections of identities influence these motivations?*

This study addresses a knowledge gap regarding motivations to adopt ecopreneurship practices within the craft sector in developing countries, particularly in Southeast Asian countries that might have similar characteristics. The study contributes to the

entrepreneurship literature by integrating literature on motivations, eco-friendly practices, and social identities. It improves our understanding of how intersectional social identities influence ecopreneurs' motivations and decisions to act eco-friendly. This study uses empirical evidence from female and male ecopreneurs in the artisanal crafts sector in Indonesia, obtained through semi-structured in-depth interviews, and complemented by field observations and an analysis of social media.

The chapter is structured as follows. First, the literature on ecopreneurship and motivations, human values, and identities is reviewed. Then, the methodology is discussed. Subsequently, an analysis of the empirical material is presented. In the discussion, the motivations of the ecopreneurs are reflected using Schwartz's value framework, which has been applied to understand different types of pro-environmental behavior (De Pelsmacker et al., 2016; Jansson et al., 2011). Finally, the theoretical contributions and recommendations are discussed in the conclusion.

3.2 Theoretical framework

This section discusses motivations in the ecopreneurship literature. Subsequently, value-based motivations of pro-environmental behavior are discussed. The discussion focuses on studies that used Schwartz's Value Theory in relation to pro-environmental behavior. Lastly, the relationship between values and identities is discussed, followed by three identity categories, namely gender, religion, and ethnicity. Ultimately, the conceptual framework is presented, which guides the empirical research.

3.2.1. Motivations of ecopreneurship

Ecopreneurship comprises ecologically friendly innovations embedded in products and services, the production process (e.g., technological improvements), and the organization, whether technical or administrative (Huang et al., 2009; Organization for Economic Cooperation and Development (OECD), 2011). Ecopreneurs run their business based on the triple bottom line of sustainability: planet, people, and profitability (Dixon et al., 2007; Forsman, 2013; Kirkwood & Walton, 2010). This implies that ecopreneurs are concerned with the impact of their business practices on the environment, on society and the economy. Ecopreneurs' commitment and a strong desire to improve the sustainability of their business, particularly the ecological aspects, are what differentiates ecopreneurship from more traditional business practices (Gibbs, 2006). To adopt ecopreneurship practices, an ecopreneur needs to have supporting motivational values.

Motivations refer to energizing forces that provoke and drive actions (Parks & Guay, 2009). Previous research categorized the motivations of ecopreneurship practices into two categories: intrinsic and extrinsic (Luthans, 2011; Kim et al., 2015; Parks & Guay, 2009; Pastakia, 2002; Vijfvinkel et al., 2011; Williams & Schaefer, 2013). Intrinsic motivations are values coming from inside a person or an organization, addressing ideological and strategic concerns (Luthans, 2011; Pastakia, 2002). Conversely, extrinsic motivations come from external and institutional factors, such as stakeholder pressure (e.g., from customers), enabling policies, regulatory agencies, judicial activism, civil society (Luthans, 2011; Pastakia, 2002; Vijfvinkel et al., 2011; Williams & Schaefer, 2013). Intrinsic motivations play a significant role in ecopreneurship success (Pastakia, 2002; Vijfvinkel et al., 2011). Because ecopreneurship is mainly practiced in SMEs, the intrinsic motivations of the owner-manager often act as a pull factor to adopt eco-friendly initiatives, ingrained in the business values (Pastakia, 2002). However, these two categories have overlapping components (Luthans, 2011). Ecopreneurs must possess aligned personal values and beliefs that drive them to adopt proactive eco-friendly behavior in business (Gibbs, 2006; Pastakia, 2002; Spence et al., 2011; Williams & Schaefer, 2013). Personal values are enduring beliefs that a specific mode of conduct is preferable to another mode of conduct (Marcus et al., 2015), guiding an individual to behave in a certain way (Parks & Guay, 2009). Therefore, this study explicitly considers value-based motivations, which directly influence the adoption of ecopreneurship practices.

3.2.2. Value-based motivations of pro-environmental behavior

Values can be used to explain the motivational bases of attitudes and behavior, which are learned and held by individuals and collectives (Morris & Schindehutte, 2005; Schwartz, 2012). Values refer to fundamental beliefs affecting human behavior and guiding the selection or evaluation of behaviors based on their relative importance (Schwartz, 2012). Schwartz (2012) developed a framework of basic human value categories, including universalism, benevolence, conformity, tradition, security, power, achievement, hedonism, stimulation, and self-direction. The definitions of these categories are presented in Table 3.1.

Table 3.1 Definitions of human basic values (Schwartz, 2012)

Value	Definition
Openness to change	
Self-direction	Independent thought and action—choosing, creating, exploring
Stimulation	Excitement, novelty, and challenge in life
Self-enhancement	
Hedonism	Pleasure and sensuous gratification for oneself.
Achievement	Personal success through demonstrating competence according to social standards
Power	Social status and prestige, control or dominance over people and resources
Conservation	
Security	Safety, harmony, and stability of society, of relationships, and of self
Conformity	Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms
Tradition	Respect, commitment, and acceptance of the customs and ideas that traditional culture or religion provides
Self-transcendence	
Benevolence	Preservation and enhancement of the welfare of people with whom one is in frequent personal contact
Universalism	Understanding, appreciation, tolerance and protection for the welfare of <i>all</i> people and for nature

Schwartz’s (2012) dynamic model represents a universal value structure. There are four sets of value combinations, namely self-enhancement, openness to change, conservation, and self-transcendence. Self-enhancement consists of power, achievement and hedonism. Openness to change is a combination of hedonism, stimulation, and self-direction. Conservation includes conformity, tradition, and security. Lastly, self-transcendence combines universalism and benevolence.

In studies on pro-environmental behavior, self-transcendence and self-enhancement are two of the most discussed value dimensions (De Pelsmacker et al., 2016; Nguyen et al., 2015). Self-transcendence values are values that emphasize concern for the welfare and interests of others (Schwartz, 2012). Self-transcendence influences personal values, potentially encouraging individuals to act in eco-friendly ways (Nguyen et al., 2015). Other researchers also found that self-transcendence values positively relate to pro-environmental attitude and behavior (Aoyagi-usui et al., 2003; De Pelsmacker et al., 2016; Félonneau & Becker, 2008). Individuals who value self-transcendence may adopt eco-friendly initiatives because of ecological concerns and feeling morally responsible.

Self-enhancement consists of values aiming to prevent loss and generate self-protection against threats (Schwartz, 2012). This implies that people who tend to be motivated by self-enhancement values often put themselves above other things, e.g., societal goals, vision, or development. Self-enhancement values are found to influence personal values negatively in relation to pro-environmental behavior (De Pelsmacker et al., 2016; Nguyen et al., 2015). Individuals with self-enhancement values who have a 'green identity' are motivated by the fact that they can directly express their self-identity, not due to ecological concern or moral obligation (De Pelsmacker et al., 2016). This 'green identity' aims to create a positive self-image and a good reputation among people who value eco-friendly behavior, while neglecting the real objectives of being eco-friendly, e.g., to protect the environment.

Based on this knowledge, the present study argues that entrepreneurs are motivated by the values they believe to be important in their lives. These values may derive from personal, social, economic, ecological, or cultural concerns and experiences. These concerns are translated into values that become motivations and goals to adopt ecopreneurship practices.

3.2.3. Values and identities

Every individual construct a unique identity, representing his or her self-image, values, norms and beliefs (Chasserio et al., 2014; Gatersleben et al., 2012). Chasserio et al. (2014) explain that individuals change and evolve throughout their lives, based on their experiences and the way they interact with society. This study acknowledges identity as the process of 'becoming', being fluid and multiple rather than a stable state, and constructed in relation to various social systems (Essers & Benschop, 2009).

Tajfel (2010) categorizes social interactions into two continua: 'interpersonal' and 'intergroup' interactions. Interpersonal social interaction refers to "any interaction between two or more people which involves the personal relationships between the individuals and by their respective individual characteristics, whereas intergroup social interaction is determined by their membership of different social groups or categories" (Tajfel, 2010, p. 4). The entrepreneur's social identity reflects the social groups or categories of which the entrepreneur is part. Social identity refers to belonging to categories and groups defined by society, including values, norms, rules and behaviors (Chasserio et al., 2014), ethnicity, and religion.

Identity plays a vital role for individuals when interpreting a social situation and determining their responses to this situation (Oyserman et al., 2017), including ecological challenges in business. Behaviors of individuals are related to identity

categories, such as race, ethnicity, and gender (Oyserman & Destin, 2010). The individual subconsciously but also sometimes consciously behaves in line with the accepted norms and values related to these identity categories. Ecopreneurs may have multiple social identities, which intersect and hence position them in specific ways in society (Essers & Benschop, 2009). This implies, for example, that women (and men) are never just women (or men), but they are Muslim, ecopreneur, and for instance, Balinese, simultaneously (Essers & Benschop, 2009). Identity mapping is important for understanding the interrelationship between the individual, institutional, historical, and societal factors that influence an entrepreneur's decisions (Atewologun, 2018; Rodriguez et al., 2016). The concept of intersectionality helps to understand how multiple identities are connected and to analyze the process of identity construction (Essers & Benschop, 2009).

3.2.3.1. Gender

Gender pertains to the "advantage and disadvantage, exploitation and control, action and emotion, meaning and identity (which) are patterned through and in terms of a distinction of male and female, masculine and feminine" (Acker, 1990, p. 146). Thus, studying gender is not solely about identifying an individual by their biological gender category (male or female), but also recognizing how masculine and feminine values relate to and affect their practices and behaviors. Ahl (2006) suggests that entrepreneurship is highly gendered. Entrepreneurship discourse has a strong masculine connotation; female and male entrepreneurs must relate to different expectations and norms when it comes to 'being an entrepreneur' (Ahl, 2006). Mainstream researchers have tended to see female entrepreneurs as secondary to male entrepreneurs, and their business practices have been considered to have less impact or at best to complement men's business (De Bruin et al., 2007), marking them as "others" and deviant (Bruni et al., 2004b). Yet, female entrepreneurship researchers have argued that different forms of entrepreneurial behavior should be equally valued (Brush et al., 2009). In this study, the perspectives of both female and male entrepreneurs are included, because as Ramadani et al., (2017) also contend, female and male entrepreneurs might demonstrate different motivations in their entrepreneurship practices.

As an aspect of human identity, gender is dynamic and varies across time and context (Bruni et al., 2004a). Gender identity is constructed over an individual's life span and is influenced by family members and society. Similarly, family and society may act as enablers of change towards sustainability, influencing the decision for business owners to become more sustainable. Essers & Benschop (2009) acknowledge that when people are involved in entrepreneurial activities, they are also involved in

building their social identities, including gender, ethnicity, and religion. Gender socialization plays an essential role in shaping an individual's view of certain phenomena, such as the response to ecological issues in business. Fundamentally, "socialization is a process by which an individual's attitudes, values, motives, and behavior is influenced to conform to what is seen as desirable in a particular socio-cultural context" (Lamsae et al., 2008, p. 46). According to gender socialization theory, women tend to be more concerned with the environment and society because they are generally more socialized as caregivers than men (Hechavarria et al., 2012; Marcus et al., 2015), particularly in relatively patriarchal societies such as Indonesia. Women generally associate themselves more with feminine values, stressing quality of life, helping other people, and protecting the environment (Ramadani et al., 2017; Zelezny et al., 2000). In contrast, men often associate themselves with masculine values, such as assertive behavior and a strong focus on material success (Ramadani et al., 2017). Additionally, following Schwartz's Theory, Lyons et al., (2005) found that women valued universalism and achievement more than men, while men valued power more than women. However, no gender differences were found concerning benevolence, security, self-direction, tradition, hedonism, and stimulation (Lyons et al., 2005). These findings were partly inconsistent with previous findings that femininity is positively related to self-transcendence values (e.g., universalism and benevolence) (Ramadani et al., 2017; Zelezny et al., 2000).

Therefore, exploring what motivates men and women within the specific context of ecopreneurship, and in a developing country such as Indonesia, matters. Societal norms and values, such as religious and (ethnic) cultural values, are expected to shape entrepreneurs' opinions and ideas about ecological issues.

3.2.3.2. Religion

Religion can function as a framework that makes life understandable and interpretable (Delener, 1994). Religion affects values and culture, such as attitudes toward wealth, contributions to society, family relationships, and economic security, which shape various forms of entrepreneurship (Anggadwita et al., 2017; Dana, 2009). Religions such as Islam, Hinduism, Buddhism, and Christianity value entrepreneurship differently (Dana, 2009). This implies that religion could explain the differences found in ecopreneurial values. Christianity appears to value capitalism the most, and Islam the least (Dana, 2009), because "Christianity supports private property and freedom to accumulate wealth" (Parboteeah et al., 2009, p. 56). Hinduism views living a good life as the achievement of four goals, namely fulfilling one's duties, pleasure, achieving liberation, and material prosperity (Parboteeah et al., 2009). In contrast, "Muslims are against competition, against private property, and less willing to trade off equality with

incentives” (Zingales, 2009, pp. 228-229). For Muslims, kinship care systems consist of multifaceted family and social ties which integrate biological, cultural, ideological, and social dynamics (Abdullah, 2016). Economic life for a Muslim is often seen as a spiritual goal, which highlights that prosperity is associated with living a virtuous life, for example by efficiently using the resources provided by nature (Parboteeah et al., 2009; Ramadani et al., 2015). Islam is concerned with the seven aspects of human security, which include personal, environmental, community, economic, food, health, and political aspects (Hasan, 2015). Additionally, Islamic law recommends that entrepreneurship practices be based on cooperation, generosity, and benevolence (Anggadwita et al., 2017; Ramadani et al., 2015). As a consequence, it is important to understand the roles of different worldviews, e.g., religious values, particularly those related to entrepreneurial practices in response to ecological degradation.

3.2.3.3. Ethnicity

Ethnicity is a major identity category, referring to a group's peoplehood, consisting of a combination of race, religion, and cultural history (McGoldrick & Troast, 1993). Culture is defined as a set of shared values, beliefs, and expected behaviors (Hofstede, 1980). Ethnicity transfers commonalities (within families) over generations that are influenced by the communities. Ethnicity influences communication, values, relationships, and preferences in doing business (McGoldrick & Troast, 1993). Ethnicity and gender often intersect (Essers et al., 2010); for example, in Javanese culture, power is associated with masculinity (Cooper, 2000). However, other studies found that Javanese people value love, harmony, and serenity without greed and restlessness, regardless of their gender (Cooper, 2000; Notodirdjo, 2011). Another example is the Balinese Hindu culture. For the Balinese Hindus, sustainable development relies on two fundamental aspects: 1. Balance among humans, between humans and their God, and humans and the environment; 2. Harmony among space, time and condition (Mitchell, 1994). Meanwhile, studies on ethnicity applying Schwartz's (2006) typology, especially on ethnic groups in a developing country such as Indonesia, are scarce. This study improves the existing knowledge in the literature by providing empirical evidence on this issue.

In conclusion, identity influences value-based motivations and behavior because values are part of the entrepreneur's identity (Gatersleben et al., 2012). Intersectionality allows us to relate (work) identities with multiple social identities and the power relations associated with them (Essers & Benschop, 2009). As no ecopreneurship studies have addressed the interlocking relationship between motivations and the intersections of gender, religion and ethnicity altogether, this study now further empirically explores these relationships. A conceptual model synthesizing the existing literature is presented in Figure 3.1.

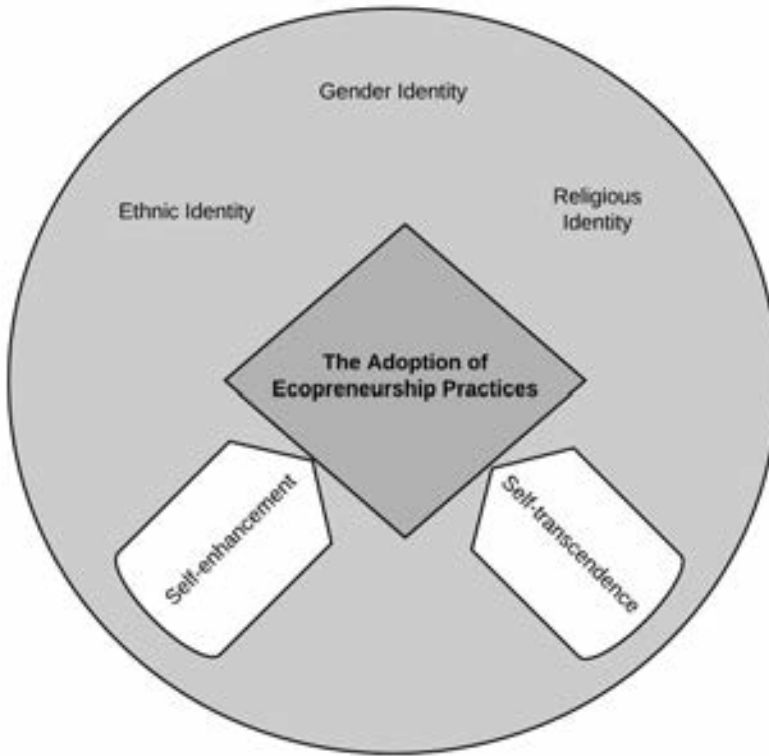


Figure 3.1. Conceptual model of value-based motivations of ecopreneurship practices

3.3. Methodology

This section explains how the study was designed and conducted, including sample selection, data collection, and data analysis. This study adopts Gioia et al.'s (2012) inductive procedure to investigate motivations of ecopreneurship and how intersectional identities affect these motivations, and follows the suggested data collection and analysis. A grounded theory approach was used that involves coding techniques to support conceptual development (Gioia et al., 2012), which is useful in small business and entrepreneurship studies (Dana & Dana, 2005; Dana & Dumez, 2015). The researchers' reflections on data collection and analysis are also included.

3.3.1. Sample

This study considered 16 owner-managers (mostly artisans), from Indonesian craft SMEs. The sampling technique entailed purposively selecting potential interviewees from the list of members of Warlami (the Indonesian Community of Natural Dyes Users), published on its official website. Subsequently, interviewees were randomly

selected, and upon that, through a snowballing technique during networking activities by the researcher, new interviewees were approached and selected. Owner-managers were considered eligible for this study, due to their role as decision makers in the enterprises, who have an adequate understanding of the SME's ecological values, strategies, and practices. The use of natural dye was the main criterion to select the SMEs because the dyeing process in the craft sector significantly contributes to environmental degradation or protection.

3.3.2. Data collection

The primary data consisted of semi-structured in-depth interviews aiming to learn what motivated the participants to engage in ecopreneurship. The interviewees were considered knowledgeable agents and they were allowed freedom of expression on the issues being raised (Gioia et al., 2012). The interviews were conducted in the Indonesian language (for examples, see Annex 1), audio-recorded, transcribed verbatim, and the transcripts were translated into English with time stamps. The interviews lasted between 60 – 90 minutes and were conducted within different time frames and using different approaches. A flexible design based on interview protocols and triangulation was used (Dana & Dana, 2005; Gioia et al., 2012), which allows the researcher to investigate the consistency between answers and to find patterns that might not be found in single face-to-face interviews.

The primary data were triangulated with secondary data, consisting of information related to the interviewees, focusing on their ecological behavior, obtained from the Internet (e.g., news articles, websites, blogs), social media (e.g., Facebook and Instagram), and the researcher's notes during field observations. The researcher attended workshops where the artisans produced and marketed the products, examined the products, observed the communication between the entrepreneurs and customers (if any), and took notes of the observed reality. Photos were taken during the field observations to support the other types of data.

The data were collected by the first author, a Sundanese (one of the Indonesian ethnic groups) Muslim woman. As Essers & Benschop (2007, p. 57) reflect, "research is an encounter between researchers and researched who have similar and dissimilar identities, agendas, and authority." It is deemed that the first author's identity as a Sundanese Muslim woman did not affect the interviewees' willingness to respond. Yet, it is important to note that the authors had no control over the interviewees' expectations and responses in the interview setting.

3.3.3. Data analysis

Data were analyzed using content analysis, and saturation was achieved after 16 interviews. The objective was to transform the overwhelming amount of data into meaningful and readable information. Following Gioia et al.'s (2012) steps for data analysis, the extracted quotes were initially coded into first-order informant-centric terms. For example, in the first excerpt by Larasati, she said, "In 2006, we received natural coloring training as well, so we can sell our batik products at a higher price." Here, it is understood that the main objective in attending the natural dye training was to be able to sell the products at a more expensive price, meaning that Larasati wants to obtain more profits. Therefore, in the first order term, we use improving profit. After that, the terms used in the first order terms were grouped into six categories based on the study's objectives, namely personal, ecological, social, economic, and cultural values. Again here, because improving profit is related to economic gains, then the term falls into the economic values category. Next, the data were linked to second-order themes, in this case dimensions from Schwartz's Value Theory (2012), such as power, security, universalism, and benevolence. Referring to the examples given earlier (excerpt from Larasati), as the main reason to become more eco-friendly was to gain more economic values, which means Larasati wants to have more power over her financial condition, then the category is considered as a power value (in accordance to Schwartz Value Theory). To sum up all the categories, we also provide the combined motivational values that best represent the values (according to Schwartz), such as self-enhancement, conservation, and self-transcendence. Since the power value indicated in the first excerpt focus on the individual improvement (in this case, Larasati's financial condition), so we include it in the self-enhancement category. Finally, the quotes, terms, themes, and dimensions were synthesized, presented in a table (see Table 3.2), and discussed based on the knowledge from the existing literature.

Table 3.2 Value-based motivations of ecopreneurship practices

Excerpt	1 st order terms	Category	2 nd order themes	Combined motivational values
"In 2006, we received natural coloring training as well, so we can sell our batik products at a higher price" (Larasati)	Improving profit			
"There were times wherein three months my products were not sold. Then I turned them into ready-to-wear products, and usually, 90 percent of them are sold out. I think that is one way to minimize the risk of financial loss." (Arjuna)	Reducing risk of loss/failure	Economic values	Power	Self-enhancement
"Doing business in <i>Batik</i> is a big deal because it is a heritage, our national identity. It might sound cliché, but everything has meaning. It is related to values and philosophies." (Arjuna)	Preserving batik values as national identity and world heritage			
"Islamic values motivated me to become an ecopreneur. [...] it also motivates us to do charity (through donation, etc.) as well as to strengthen our faith. I also think when the business is successful, it will open up more opportunities to help others." (Gadis)	Fidelity	Cultural values	Tradition	Conservation
"I believe in the Hindu value of "karmaphala". [...] Thus, I believe that if we treat the environment well, we will indeed have a better environment in the future for the next generations to live in." (Ketut)	Responsibility			
"[...] the condition of the Earth is getting worse, due to pollution. I want my children to be able to live in a clean environment in the future (that is why I adopt ecopreneurship practices)." (Gadis)	Ensuring livelihood for future generations	Social values	Security	

Table 3.2 Continued

Excerpt	1 st order terms	Category	2 nd order themes	Combined motivational values
"Unconsciously, my main motivations derive from my former work in a Japanese firm. Later, I realized that the garment industry always had many problems related to environmental impact. This went against my feelings and drove me to build an eco-friendly business." (Ketut)	Protecting environment	Ecological values	Universalism	
"Preserving (<i>batik</i>) as a national cultural heritage with artistic values without polluting the environment is our motivation because we live in the world, which we borrowed from our children" (Kresna)	Reducing pollution			
"As a Muslim, I am concerned (with the people and the environment), so I established the Arjuna Foundation. [...] The funds are distributed to the orphans, and people living in poverty in the remote areas, also to help our workers because their children may need support with their education and health." (Arjuna)	Community building	Social values	Benevolence	Self-transcendence
"For us, the most important values are togetherness and the spirit of kinship. We consider the crafters a family, especially the members of our business group. Often, we also share and discuss with members of the other business groups." (Larasati)	Kinship relationship			

To assure confidentiality, the names of the ecopreneurs were anonymized, and identified by fictive names. This study included both female and male entrepreneurs to provide a comprehensive understanding of how both sexes are driven to adopt ecopreneurship practices.

3.3.4. Research context

Indonesia is a complex country with substantial ethnic, cultural, and linguistic diversity as well as unique dynamics, reflected in its motto “unity in diversity” (Anggadwita et al., 2017; Indonesia Investment, 2019). Indonesian cultural identity and the issue of gender are reflected in the Indonesian craft sector, a female-dominated sector (Rachman, 2016a; Rachman, 2016b) and mostly a home-industry (SMEs), where femininity (e.g., through kinship relations and care for others) is embedded in business practices. Indonesia officially recognizes six religions, namely Islam, Protestantism, Catholicism, Hinduism, Buddhism, and Kong Hu Cu (Anggadwita et al., 2017). Most Indonesians base their daily behavior on their religious beliefs. In terms of ethnicity, for the Javanese, accounting for 40% of the population, living in harmony with the environment and society is a core value (Cooper, 2000). Living in a culturally heterogeneous society has instilled tolerance and respect for differences among Indonesians (Anggadwita et al., 2017).

In the craft sector, social interactions and human development are essential. Unfortunately, the SMEs in the craft sector are reportedly large producers of carbon dioxide (CO₂) emissions, compared to other SMEs in Indonesia (Booth, 2011). Although the Indonesian government has promised financial aid for preventing environmental pollution in the long run (Ministry of Industry Republic of Indonesia, 2017), the development towards a greener economy has progressed slowly (Gunawan & Fraser, 2016). This study helps to understand the process of becoming an ecopreneur, considering the intersections of the ecopreneurs’ identities, for example, as a Javanese female Muslim ecopreneur.

An overview of the respondents, including pseudonyms used, the ecopreneurs’ identities (e.g., age, gender, religion, and ethnicity), and the enterprises’ profiles are presented in Table 3.3. Among the 16 interviewees, nine were in their 50s, and the youngest in their 20s. Out of 16 interviewees, nine were female and seven were male ecopreneurs. The majority is Muslim (14 ecopreneurs) followed by Christian and Hindu. Regarding ethnicity, 15 ecopreneurs identified themselves as Javanese, and one as Balinese (Bali Hindu).

Table 3.3 Overview of respondents

Name*	Age	Intersections of identity			Firm Age (in years)	No. of Employees	Products ⁷	Ecological Initiatives ⁸
		Gender	Religion	Ethnicity				
Gadis**	30s	Female	Islam	Javanese	9	20	HBF, BC	PND, WWM, ES
Kresna**	50s	Male	Islam	Javanese	20	15	HBF, RWF	FND
Ayu	50s	Female	Islam	Javanese	9	120	HBF, RWF, WS	MND, WWM, ES
Dian**	20s	Female	Christian	Javanese	2	12	RWF	PND
Kartini	50s	Female	Islam	Javanese	2	3	HC, HF, WS	FNR
Banyu	20s	Male	Islam	Javanese	4	20	HBF, RWF	PND, WWM
Joko	50s	Male	Islam	Javanese	8	2	HBF, RWF, WS	PND, CV, WWM
Arjuna**	30s	Male	Islam	Javanese	4	27	HBF, RWF	FNR
Karto	40s	Male	Islam	Javanese	14	48	HBF, RWF	PND, WWM
Rahayu	50s	Female	Islam	Javanese	4	22	HBF	MND
Pranomo	50s	Male	Islam	Kutai	5	8	HBF, RG, WS	PND, UW
Laila	40s	Female	Islam	Javanese	11	35	HBF, RWF	PND
Maharani	50s	Female	Islam	Javanese	9	19	HBF	PND
Larasati**	50s	Female	Islam	Javanese	10	20	BHF, RWF	PND, WWM
Jameela	30s	Female	Islam	Javanese	11	23	HBF, RWF	PND, WWM
Ketut**	50s	Male	Hindu	Balinese	18	53	HBF, BC, HC, WS	FND

The enterprises' profiles include firm age, number of employees, products, and ecological initiatives. Most of the enterprises can be described as recently developed businesses with a limited number of employees. The age of the enterprises varied between 2-20 years. The number of employees was between two and 120; 20 on average (mostly women). The firms use natural dyes in various degrees in their products (seven SMEs use entirely natural ingredients, and four SMEs are only partly eco-friendly). Ecological innovations included wastewater treatment, using an electric stove, energy conservation, and upcycling waste.

7 * To ensure anonymity, all names are pseudonyms.

** We used and analyzed quotes of these respondents in the findings section.

Products: HBF = Handmade Batik Fabrics; RWF = Ready-to-Wear Fashion; BC = Batik Crafts; HF = Handmade Fabrics; HC = Handmade Crafts; WS = Workshops; RG = Recycled Goods
8 Ecological Initiatives: PND = Partly Natural Dye; MND = Mostly Natural Dye; FNR = Full Natural Resources; WWM = Waste Water Management; ES = Electric Stove; CV = Conservations; UW = Upcycling Waste

3.4. Results

In this section, excerpts are discussed in relation to the ecopreneurs' intersections of identity. The three motivating values found in this study were self-enhancement, conservation, and self-transcendence. Besides self-enhancement and self-transcendence, conservation was also found to motivate Indonesian ecopreneurs. However, openness to change was neither found to motivate Indonesian ecopreneurs nor shown to be influenced by the intersections of identity in the adoption. This could be explained by the collectivist nature of Indonesian society; openness to change seems to be a more self-centered value, which conflicts with shared and community values.

3.4.1. Self-enhancement

For the Indonesian craft ecopreneurs in this study, self-enhancement as motivations mainly occurs in relation to economic values, such as improving profit and reducing the risk of loss/failure. Self-enhancement is represented by power, which is typically a masculine value. In the first excerpt, Larasati mentions that her motivation to adopt ecopreneurship practices is mainly driven by economic value.

"In 2006, we received natural coloring training as well, so we can sell our batik products at a higher price." (Larasati - Female, Muslim, Javanese)

This excerpt underlines that Larasati saw an economic opportunity when she was first introduced to natural coloring in 2006. However, based on our observations, Larasati is struggling to exclusively use natural dyes due to a lack of demand from consumers and the need to fulfill her family needs. Therefore, for Larasati, the economic benefits remain the primary reason for which she adopted ecopreneurship practices, followed by societal contributions and family influence (Researcher's note, 2017). In this case, Larasati shows that women too can be driven by profit to adopt ecopreneurship practices, a motivation which is often associated with masculinity. As a Javanese woman, Larasati is firmly preoccupied with maintaining her work-family balance. Accordingly, fulfilling family needs has become an essential driver of Larasati's business. Although not reflecting the Islamic value of ensuring environmental security, maintaining the stability of family economics seems to be a top priority.

Another economic motivation, generating profit from upscaling eco-friendly products, is demonstrated by Arjuna. The following excerpt shows how power values in relation to economic motivation, which can be translated into desirable behavior (ecopreneurship practices):

"There were times when in three months my products were not sold. Then I turned them into ready-to-wear products, and usually 90 percent of them are sold out. I think that is one way to minimize the risk of financial loss."

(Arjuna - Male, Muslim, Javanese)

Here, Arjuna, as a male entrepreneur, emphasizes that producing eco-batik helps him to extend the life cycle of the products. He managed to upscale the less desirable semi-finished products (fabrics) to ready-to-wear products (clothes), which increases the probability of earning higher profits and reduces the risk of financial loss. As noticed by the researcher during field observations, upscaling products is more difficult if you use synthetically dyed *batik*; thus, making it more difficult to earn more profit (Researcher's Note, 2017).

The two economic motivations above (see the excerpts from interviews with Larasati and Arjuna) are categorized as 'power values' because these motivations focus on having control over the resources (and wealth) in the firm. Based on the analysis, gender does not appear to influence ecopreneurs' motivations to adopt ecopreneurship practices through power values. Both male and female ecopreneurs who value masculinity could be motivated by power values such as increasing profit. The masculine values become important for female ecopreneurs due to other (feminine) factors, such as caring for family needs. As caring for family needs should be prioritized according to religious (Islamic) law, consequently, Larasati stresses this motivation. Unexpectedly, his ethnic identity does not seem to influence the motivations directly because Javanese values suggest harmony with the people and the environment. Other self-enhancement values, such as hedonism and achievement, were not found to motivate the adoption of ecopreneurship practices in this study. To conclude, self-enhancement, especially power value, tends to motivate both Javanese female and male ecopreneurs.

3.4.2. Conservation

Among the interviewed ecopreneurs in the Indonesian craft sector, conservation appears to be a strong motivation, and closely related to culture. Security (comprised in conservation), e.g., ensuring the livelihood of future generations, motivates Gadis to adopt ecopreneurship practices:

"[...] the condition of the Earth is getting worse, due to pollution. I want my children to be able to live in a clean environment in the future (that is why I adopt ecopreneurship practices)." (Gadis - Female, Muslim, Javanese)

Gadis is disturbed by the state of the environment, which is sadly polluted. Gadis further points out that whether future generations can live in a clean, livable environment depends on us. The motivation above indicates that Gadis cares for the safety of future generations (security), especially her children. This is a feminine family value. The intersection of her identities, as a Javanese Muslim female ecopreneur, seems to strongly influence this motivation because these identities all promote care for people and the environment.

Cultural values, such as preserving the national identity and complying to religious values, motivate many of the ecopreneurs in the Indonesian craft sector. For example, Arjuna is motivated to preserve *batik* as part of the national identity by adopting ecopreneurship practices:

“Doing business in batik is a big deal because it is a heritage, our national identity. It might sound cliché, but everything has meaning. It is related to values and philosophies.” (Arjuna - Male, Muslim, Javanese)

In the excerpt, Arjuna expresses beliefs that doing business in *batik* involves the responsibility to preserve its cultural values as a national heritage and identity. This cultural value strengthens his motivation to create a product that is more sustainable. Moreover, appreciating the value of *batik* seems to be important for Arjuna, which is also apparent in his Instagram post in September 2020. The post shows that the value of hand-crafted products, e.g., *batik* or woven fabrics, can only be understood by people who appreciate the complexity of making the product. It consists of philosophical knowledge which is passed down from generation to generation. Empirical evidence indicates that Arjuna is strongly driven by cultural values (tradition) in adopting ecopreneurship practices. As a male ecopreneur, Arjuna practices femininity which emphasizes care for tradition or the people involved in creating the culture. His Javanese Muslim identity informs his respect towards tradition; thus, they strengthen the motivation.

Furthermore, complying with religious values is another motivation related to tradition, which shows in the motivations of Ketut and Gadis. The intersection of Hindu and Balinese identities has influenced Ketut's personal and cultural values, particularly in guiding his ecopreneurial practices. Balinese are well-known for embedding Hinduist values in their daily activities, Ketut feels that his ecopreneurship is an act of responsibility, and to give his best for the environment and society:

"I believe in the Hindu value of "karmaphala". [...] Thus, I believe that if we treat the environment well, we will indeed have a better environment in the future for the next generations to live in." (Ketut - Male, Hindu, Balinese)

Here, Ketut stresses that a Hindu value in which he believes is "*karmaphala*", which means what you sow is what you reap. Ketut embeds this Hinduist value into his eco-friendly business. For Ketut, treating the environment well will help his children in the future to have a better place to live. Analyzing the excerpt above, Ketut's ethnic-religious identity seems to inform his commitment to Hinduist Balinese values towards people and the environment. However, his gender identity does not appear to influence his motivations.

Islamic values motivated Gadis to adopt ecopreneurship practices. She explains that fidelity to Islamic values motivates her to be eco-friendly:

"Islamic values motivated me to become an ecopreneur. [...] it also motivates us to do charity (through donation, etc.) as well as to strengthen our faith. I also think that when the business is successful, it will open more opportunities to help others." (Gadis - Female, Muslim, Javanese)

In this excerpt, Gadis explains that in becoming an ecopreneur she was motivated by the Islamic values taught by the Prophet Muhammad. Muslims who run a business must share part of their profits with the poor to strengthen their faithfulness to God as the provider of all wealth. Gadis' identity as a Javanese female entrepreneur does not seem to influence her tradition (compliance with religious values) motivation. Her Muslim identity shapes her motivations.

To conclude, in the case of Indonesian craft ecopreneurs, conservation values, which comprise security and tradition values, motivate the adoption of ecopreneurship practices. This study did not find a role of conformity value in the ecopreneurs' motivations. The motivations also tend to be primarily informed by ethnic-religious identities rather than gender identity.

3.4.3. Self-transcendence

Most of the ecopreneurs in this study are motivated by social values such as community building and kinship relations to adopt ecopreneurship practices. These social values are included as universalism and benevolence. Arjuna and Kresna show universalism (e.g., community building and a healthy lifestyle) as presented below in the excerpts. Arjuna affirms that his religious identity influences his motivations for running a sustainable business and to care for people in need:

"As a Muslim, I am concerned (with the people and the environment), so I established the Arjuna Foundation. [...] The funds are distributed to the orphans, and people living in poverty in the remote areas, also to help our workers because their children may need support with their education and health." (Arjuna - Male, Muslim, Javanese)

In this excerpt, Arjuna emphasizes that the reason why he adopted ecopreneurship practices in his business is to be able to improve the prosperity of the locals and people in remote areas. Arjuna's social involvement shows in his Instagram post in May 2020:

"Think as if this is your last Ramadhan! How many good deeds have you done? What kind of good deeds have you practiced? Let's help others by donating to orphans and the poor in remote areas with Arjuna Foundation. [...]"
(Arjuna – Male, Muslim, Javanese)

The post illustrates he cares for unfortunate people who need financial aid. Arjuna also adds Islamic sayings to his post to motivate people to participate and care for others. By mentioning the importance of Ramadhan, the holy month for Muslims, he advocates that people should care for others. Here, it becomes clear that Islamic values are underlying Arjuna's eco-business and foundation. Again, here, Arjuna demonstrates that he practices feminine values and that his Javanese identity informs his motivation to live in harmony with people and the environment.

Another ecopreneur, Larasati, finds kinship relations in the workplace important:

"For us, the most important values are togetherness and the spirit of kinship. We consider the crafters a family, especially the members of our business group. Often, we also share and discuss with members of the other business groups."
(Larasati - Female, Muslim, Javanese)

As a Javanese female ecopreneur, Larasati perceives the spirit of kinship and togetherness as necessary, which is typically considered a feminine attitude. The excerpt shows that sharing knowledge among crafters acts as an example of caring for each other. By sharing knowledge, workers could improve their skills and knowledge of ecological business practices, such as using a new coloring technique.

An Instagram post by Larasati (August 2016) confirms this motivation. The post shows a workshop, organized by Larasati's SME, for locals and foreign people who are

interested in making *batik*. She provided *batik* kits for participants and documented the workshop. Larasati's motivation to share her knowledge of natural dyes and eco-friendly practices with the community is referred to as benevolence value. However, the initiative to foster kinship relations among crafters and share *eco-batik* knowledge are observed in other SMEs as well. It occurs not only in SMEs with Javanese owner-managers, but also with Balinese owner-managers, nor does it seem to differ between female and male entrepreneurs. This means that the ecopreneur's gender and ethnicity do not seem to influence benevolence value as a motivation to adopt ecopreneurship practices.

The interviewees adopt ecopreneurship practices because of two underlying reasons: protecting the environment and reducing pollution. Protecting the environment is one of the main reasons for Ketut:

"Unconsciously, my main motivations derive from my former work in a Japanese firm. Later, I realized that the garment industry always had many problems related to environmental impact. This went against my feelings and drove me to build an eco-friendly business." (Ketut - Male, Hindu, Balinese)

This excerpt shows that Ketut was concerned about the negative environmental impact of the garment industry, such as water pollution, for the locals. Similarly, an article about organic products in Indonesia mentioned that Ketut was concerned about the use of imported synthetic dyes and their impact on the environment and the people in Bali (Indonesia Organic, 2018). Therefore, Ketut decided to become an ecopreneur and use natural dye as the primary resource in his business to minimize pollution. Additionally, Ketut's ecopreneurship practice is also evident in his Instagram story posted in January 2020, as presented below:

"Our company uses at least two tons of yarn in a year. The rests of the yarn, after production, we process back into sustainable products. Various types, such as scarves, carpets, etc., have sales value and reduce the accumulation of waste from production. A sustainable product means caring for our earth."
(Ketut – Male, Hindu, Balinese)

Through this post, Ketut intends to educate his customers that sustainable products could save the earth. The post also shows Ketut's commitment to sustainability. Being a Balinese Hinduist, Ketut is highly informed by the values that he shall live in harmony with other people, the environment, and with God. His gender identity does not seem to influence his universalism.

Finally, another ecological value that motivates Indonesian ecopreneurs is to reduce pollution. Kresna explains:

"Preserving (batik) as a national cultural heritage with artistic value without polluting the environment is our motivation, because we live in a world which we have borrowed from our children." (Kresna - Male, Muslim, Javanese)

Here, Kresna mentions that *batik* has distinctive cultural value among Indonesian people. He is motivated to preserve the values by producing *batik* that does not contribute to environmental damage. He further points out that the environment must be preserved for children in the future. From his Instagram post, it is observed that Kresna seems to provide *eco-batik* workshops for children and introduces it to foreigners. This post demonstrates that Kresna's products are safe for children and promote Indonesian cultural heritage, which is in line with his motivations to protect the environment. Kresna's universalism implies the wish to protect the wellbeing of people and nature. In Kresna's case, his Javanese Muslim identity informs this motivation. Although universalism is often associated with femininity, from the examples above it can be recognized that universalism, as a motivation, is also found in male entrepreneurs.

Thus, it was found that self-transcendence, which comprises benevolence and universalism, is mainly associated with ethnic-religious identities. Self-transcendence is closely related to femininity, but can be found in the motivation of both female and male ecopreneurs.

3.5. Discussion

This chapter investigated how the values motivating ecopreneurship are shaped by entrepreneurs' intersections of identity, such as gender (socialization), ethnicity, and religion. The values perceived to be typically feminine and/or masculine were not exclusively found amongst female or male ecopreneurs. This study complements prior studies suggesting that male entrepreneurs are mainly motivated by masculine values such as power, by new insights (part of self-enhancement) (Hechavarria et al., 2017; Lyons et al., 2005). This study's findings suggest that various male entrepreneurs (e.g., Arjuna, Ketut, and Kresna) practice feminine values such as universalism (part of self-transcendence), rather than masculine values while engaging in ecopreneurship. Furthermore, the degree of masculinity and femininity seems to play an important role in the diverse motivations to adopt ecopreneurship practices among female and male entrepreneurs in general - rather than the category of sex-, i.e., being (born as) female or male. These findings can be explained by the fact that the Indonesian

craft sector is a female-dominated sector, which suggests that feminine qualities (e.g., caring for others and the environment, kinship relations) are often embedded in business practices (Rachman, 2016b; Rachman, 2016a). This finding highlights how multiple identities interact and how they influence the motivations to adopt ecopreneurship practices and engage in entrepreneurial and ecopreneurial behavior. Therefore, male entrepreneurs in this sector, supported by the intersections of their religious and ethnic values, seem to be potentially more directed by feminine values than in other sectors, especially in adopting ecopreneurship practices and engaging in ecopreneurial behavior.

Regarding the role of religious identity in motivating the adoption of ecopreneurship practices, the Muslim ecopreneurs in this study (e.g., Arjuna, Kresna, Gadis, and Larasati) demonstrate that they are influenced by Islamic values in their motivations. The universalism among the Muslim ecopreneurs is in line with previous studies (Anggadwita et al., 2017; Dana, 2009; Ramadanani et al., 2015). Islam does not promote the accumulation of individual wealth, but rather advocates to share blessings with others (Anggadwita et al., 2017; Dana, 2009; Ramadanani et al., 2015). Islam also encourages believers to achieve prosperity without exploiting the resources provided by God (Parboteeah et al., 2009; Ramadanani et al., 2015). Moreover, the analysis supports prior findings that Muslim entrepreneurs care about human security (Hasan, 2015). This helps to understand how the ecopreneur's identity as a Muslim influences his/her motivation to adopt ecopreneurship practices which aims to ensure the security of the future generations in terms of their personal, environmental, economic, and health security. Therefore, sharing their wealth and blessings with others seems to be an important motivation for the Muslim ecopreneurs, regardless of their gender and ethnicity, as it allows them to comply with Islamic values. From the data, it became clear that Muslim ecopreneurs tend to be motivated by conservation and self-transcendence values in adopting ecopreneurship practices. Although openness to change and self-enhancement do play a role, these values seem to be less fundamental for the Muslim ecopreneurs. This is mainly observed in Muslim interviewees; however, the findings cannot be generalized because other religions were underrepresented.

Finally, the findings of this study support previous findings about Javanese culture (Cooper, 2000; Notodirdjo, 2011). For example, the Javanese ecopreneurs in this study (e.g., Arjuna, Kresna, and Dian) are motivated by the values of 'harmony with the environment' and 'social order' which reflect Javanese characteristics. In Javanese culture, power is closely related to masculinity. Although women also show their power, they use it to create harmony in society and to support men's power

(Cooper, 2000). The intention to create social harmony appears clearly in Javanese female and male ecopreneurs' motivations. Findings suggest that conservation and self-transcendence, which are associated with harmony with people and the environment, are Javanese values embedded in eco-friendly practices and ecopreneurial behavior. These findings seem to support previous studies mentioning that love, harmony, and serenity without greed and restlessness are core values of Javanese people, regardless of their gender (and religion) (Cooper, 2000; Notodirdjo, 2011). As the Balinese are included to a small extent, this study is not representative for the Balinese population.

3.6. Conclusion

This study concludes that Indonesian ecopreneurs in the craft sector are dominantly motivated by the value categories of self-transcendence, conservation, and self-enhancement. This study suggests that intersections of identity can play a role in influencing motivations to adopt ecopreneurship practices, but this is primarily the case when the shared values are related to sustainability and cultural values.

Contributions to the literature are three-fold. First, this study advances the discussion on motivational values in ecopreneurship studies. This study complements previous studies, which found that self-transcendence and self-enhancement motivate pro-environmental behaviors, such as ecopreneurship. It was demonstrated that conservation values, particularly security and tradition, also drive the adoption of ecopreneurship practices. The motivation to ensure the livelihood of future generations for the entrepreneurs means securing the quality of the environment for the future of their children. Preserving cultural values and adopting religious values often implies respecting cultural traditions, because these values are closely related to environment and society. The study has furthered our understanding of how values motivate ecopreneurship behavior. Conservation values were added to the values known to influence pro-environmental behavior. Furthermore, it can be argued that Schwartz's Value Theory needs to be adapted because its value dimensions are strongly associated with Western, individualistic, culture. In contrast, in Asian - collectivist - cultures, the values underlying the foundation of a business are often community-based rather than individualistic.

Second, this chapter adds to the literature on gender in entrepreneurship. It was demonstrated how motivational values are influenced by intersections of identity, such as gender, religion, and ethnicity. Explicitly, it was demonstrated how entrepreneurial identity, co-constructed upon gender, religion, and ethnicity, influences sustainable behavior, such as ecopreneurship. The intersections of

entrepreneurs' identities affect their values and thus shape motivations to respond to ecological challenges. It is recommended that future ecopreneurship studies should consider the intersectionality of identities because this provides more nuanced perspectives for understanding the phenomenon. Due to the diversity of identities among ecopreneurs, future studies should include intersections of social identities, such as race, socio-economic class, education, and immigration status, to complement knowledge on motivational values.

Third, this chapter contributes to family business studies, although results might be different in other sectors, and countries. However, the motivating role of conservation values might also be present in family businesses, because it relates to family and culture, which are the main elements in family businesses and the craft sector. Consequently, this study may provide a starting point for family business researchers regarding how family and culture shape entrepreneurs' motivations. As security and tradition values were found in the entrepreneur's motivations, the findings highlight that children's survival in the long term depends on the entrepreneur's response to ecological challenge in the present time. It shows that children become an important element of the family sustainability, therefore, the core values adopted in the family business should include ecological innovation as a response to ecological challenges nowadays. Ecopreneurship practice become one of the solutions to ensure both the livelihood of future generations and the sustainability of a family business. Thus, it is recommended for family business researchers to further investigate this phenomenon. Comparisons with other sectors that are male-dominated and more masculine-oriented than the craft sector are recommended.

In terms of practical contributions, this study provides the insight that every individual has different motivations, shaped by their intersections of identity, which are worth recognizing. Policymakers should create more inclusive policies to foster the acceleration of the adoption of ecopreneurship practices, especially in the creative industry. Entrepreneurs from all sexes, religions and ethnicities deserve the appreciation that their ideas and involvement might help to accelerate sustainable development. By proposing inclusive policies, policymakers should increase the diversity of entrepreneurs in society and provide tailored assistance to stimulate the adoption of ecopreneurship practices in business.

Second, the findings of this study reveal that intersections of identities are essential determinants of ecopreneurial practices. Policymakers could encourage Indonesian entrepreneurs to adopt ecopreneurship practices by embedding them in their local culture. For example, policymakers could assist local SMEs in using natural

ingredients produced by local farmers and aimed at local consumers by embedding the cultural identity of the area. Thus, they could empower local communities, improve the local economy, and preserve local culture.

This study has several limitations. First, the sample size was limited. Second, as our findings are derived from the Indonesian craft sector, it is advised to extend future research in the craft sector to other emerging countries, and to other sectors, to develop further theoretical insight in ecopreneurship in emerging countries.

Chapter 4

Institutional barriers and facilitators of sustainability for Indonesian batik SMEs: A policy agenda⁹

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Abstract

The implementation of sustainability-oriented practices in small- and medium-sized enterprises (SMEs) has been discussed frequently over the years. Recent studies on sustainability have focused mainly on links between ecological and economic sustainability. This exploratory study aims to explore institutional barriers and facilitators regarding the implementation of sustainability-oriented practices in the Indonesian batik industry and to provide policy recommendations. The Indonesian batik industry is well-known for its cultural heritage and for being part of the Indonesian identity. Batik products are mostly hand-crafted by women crafters. The study used in-depth insights from two focus groups conducted with entrepreneurs active in the batik industry, while also building on earlier empirical insights. The lack of customer knowledge and socio-cultural and regulatory factors were found to be barriers to sustainability in batik SMEs. Ecological, technological, socio-cultural, and political factors were found to facilitate achieving sustainability objectives. This study contributes to the sustainable entrepreneurship and women entrepreneurship literature by considering facilitators and barriers as they are experienced by batik entrepreneurs and by furthering the conceptualization of sustainable entrepreneurs as either "committed" or "followers".

Chapter 4

Institutional barriers and facilitators of sustainability for Indonesian batik SMEs: A policy agenda

4.1. Introduction

During the past two years, COVID-19-related measures have forced small- and medium-sized enterprises (SMEs) in developing countries to reduce their production capacity and employment, which has created an undesirable situation. The total early-stage entrepreneurial activity (TEA) in Indonesia has decreased dramatically from 14.09% (in 2018) to 9.60% (in 2020) (Global Entrepreneurship Monitoring, 2021). This indicates that Indonesians, in general, seem to have become more cautious in creating new ventures, especially during the pandemic, due to high levels of uncertainty and instability.

Looking at the participation of women in entrepreneurship, it is interesting to note that Indonesia and MENA countries, i.e., countries in the Middle East and North Africa, on the one hand, show similarities in terms of religious beliefs and patriarchal systems, which might also ultimately affect the ways in which entrepreneurship is conducted (Gunawan et al., 2021a). On the other hand, unlike MENA countries, as reported by (Bastian et al., 2019), according to the Global Entrepreneurship Monitor (GEM), Indonesia and Kazakhstan are the only middle-income countries with an average TEA of women higher than that of men (Global Entrepreneurship Monitoring, 2021). The ratio of women-led TEA increased in 2020 (1.10) compared to the data from 2018 (1.01) (Global Entrepreneurship Monitoring, 2021). This indicates that Indonesian women seem to be more willing or able to deal with uncertainty during the pandemic than their male counterparts. This is an important observation because previous studies have argued that improving women entrepreneurship and increasing the number of women-led enterprises may play a significant role in achieving a country's sustainable development goals (Bastian et al., 2019) and creating more gender equality in the labor market, as well as in society as a whole. However, great concern for the ecological sustainability of these enterprises and how this might affect these entrepreneurs' living conditions and wellbeing remains.

Irresponsible consumption and production continue to burden our planet with waste and pollution. Waste and pollution from various industries disrupt the environment and affect people, while also endangering the long-term survival of

whole industries. Consequently, ecological and social values have become the center of attention in Indonesia's tourism and creative sectors. SMEs are forced to critically re-evaluate their business strategies, especially regarding cleanliness, health, safety, and environmental sustainability (CHSE) (The Ministry of Tourism and Creative Economy, 2020). Socio-ecological and economic challenges have, thus, risen for the batik industry in Indonesia (Apriyani, 2018; EKONID, 2012; Handayani et al., 2018; Romadhon, 2017).

Batik can be defined as a piece of art applied onto fabric using hot wax by creating little dots (Syed Syaharudin et al., 2021). Batik is well-known for its cultural value and heritage function, representing the national identity of Indonesia (UNESCO, 2009). It is mostly hand-crafted by women crafters (European Commission, 2010; Pujiastuti, 2015) (see Figure 4.1).



Figure 4.1. Female batik crafter in Indonesia

Since the industry is dominated by women, feminine qualities (e.g., caring for others and the environment, including other people's ideas and backgrounds in the business, taking care of kinship relations, and bearing in mind the prospects of the

families involved in their enterprises) are often associated with the entrepreneurs in the industry (Rachman, 2016a; Rachman, 2016b). Batik crafters are primarily home-based, and the production often involves collaboration among micro-, small-, and medium-sized enterprises (MSMEs) (Syed Syaharudin et al., 2021). Approximately 212,000 Indonesians earn a living from making batik through inherited skills (Investor Daily, 2019), and most live in rural areas. According to data provided by the Indonesian Ministry of Industry and Trade, there are approximately 50,000 batik enterprises in Indonesia, mostly concentrated in central Java in cities such as Cirebon, Yogyakarta, Pekalongan, and Surakarta (Syed Syaharudin et al., 2021). Due to its unique characteristics, Indonesian batik is considered part of the World's Intangible Cultural Heritage of Humanity (UNESCO, 2009). Nowadays, batik represents the identity and culture of a broader Indonesian society through a culturally meaningful piece of art that is used for daily activities from childhood until death. Batik fabrics are used to carry babies in a sling, for business and academic settings, for wedding rituals, to wrap the dead during funerals, and much more (UNESCO, 2009). Hence, the batik industry plays a significant economic and socio-cultural role in Indonesia and the surrounding developing countries.

The Indonesian batik industry is a sector with many SMEs. However, batik SMEs are hardly known for their ecologically sustainable behavior (EKONID, 2012.; Handayani et al., 2018). For example, per kilogram of batik produced, a batik SME can produce up to 125 L of wastewater, which may contain harmful substances from synthetic dyes and is often drained into rivers without proper water treatment (Apriyani, 2018). Moreover, exposure to toxic substances and water pollution, in the long run, may have a domino effect for the women crafters, as they usually breastfeed their babies. Therefore, even though batik SMEs individually may not be the most significant contributor to environmental degradation—because they are small businesses and are home-based—their cumulative environmental impact could endanger the health and welfare of many families and communities (Handayani et al., 2018; Romadhon, 2017). This implies that a lack of ecological sustainability threatens to disrupt this industry's social and economic sustainability.

The Brundtland Commission (1987) defined sustainable development as the act of fulfilling current needs without disturbing the fulfillment of future needs. This definition suggests that resources available today should be used responsibly, effectively, and efficiently so that future generations can also use the resources to meet their needs. The three dimensions of sustainability, known as the triple bottom line, include ecological, social and cultural, and economic sustainability (Collins et al., 2010). Recent studies on sustainability in the batik industry have mainly focused

on the links between ecological and economic sustainability (Al Rasyid & Asri, 2014; Handayani et al., 2019; Rinawati et al., 2013; Yoshanti & Dowaki, 2017). However, little attention has been given to the socio-cultural aspects of sustainability within this field. Hence, in order to address a gap in the literature concerning the triple bottom line in this industry and how this relates to gender issues, this paper aims to obtain better insight into how female and male Indonesian ecopreneurs who strive for sustainability can be encouraged to become more sustainable, with a focus on ecological and socio-cultural aspects.

Based on insights from an earlier pilot study concerning ecopreneurs' motivations towards (ecological) sustainability, this exploratory study seeks to understand the institutional barriers and facilitators with respect to implementing sustainability-oriented practices as experienced by sustainable entrepreneurs. Previous studies have found that facilitators of sustainability in SMEs are often related to socio-cultural factors and ecological factors (Gunawan et al., 2021a; Koe & Majid, 2014; Crnogaj et al., 2014; Gunawan et al., 2021b). Researchers have categorized the factors influencing sustainability in SMEs into individual, organizational, and institutional factors (Spence et al., 2011; Ahmad et al., 2020).

To explore institutional barriers and facilitators with respect to increasing sustainability in the Indonesian batik industry and to provide recommendations for policymakers, such as the Center of Craft and Batik, the following research questions are formulated:

- 1. What are the institutional barriers experienced by female and male crafters in Indonesian batik SMEs to becoming more sustainable?*
- 2. What are the institutional facilitators experienced by female and male crafters in Indonesian batik SMEs to becoming more sustainable?*
- 3. How can batik SMEs, in general, and women-led batik SMEs, in particular, be supported to become more sustainable?*

The study is structured as follows: First, the study reviews the literature on sustainability in SMEs in general and, more specifically, in batik SMEs to provide a theoretical background. Then, the literature on the barriers and facilitators of sustainability in SMEs, particularly ecological and socio-cultural factors, is reviewed to identify theoretical concepts and gather data. We also investigate to what extent women can be empowered through sustainable entrepreneurship. Next, to

complement and confront the literature review with empirical insights, data collected through two focus group discussions (FGDs) with four sustainable entrepreneurs in each session—hence, eight in total—is used. The FGDs explore the institutional barriers and facilitators of sustainability as they are experienced by entrepreneurs. Using a content analysis approach, the data are analyzed using Atlas.ti. The results of this analysis are provided and discussed, answering the first and second research questions. Policy recommendations are formulated that address the third research question. Finally, a conclusion is provided to emphasize this study's theoretical and practical contributions and limitations, as well as an agenda for future research.

4.2. Literature review

This section presents the perspectives used in this study. Firstly, it discusses sustainability in SMEs, in general, and in batik SMEs, in particular. Secondly, it reviews how prior research has discussed barriers and facilitators of sustainability in SMEs. Moreover, the review introduces the theoretical concepts used in the data analysis.

4.2.1. Achieving sustainability goals in SMEs

SMEs account for the majority of firms in developing countries, including Indonesia. In Indonesia, they are typically owned and managed by families who often tend to focus on daily operations and respond only to critical situations (Ghazilla et al., 2015). This implies that changing organizational strategies (towards increased sustainability) means changing the entire family business operation and beliefs. On the one hand, researchers argue that SMEs are often less flexible, as they are often more risk-averse (Costache et al., 2021). On the other hand, compared to larger companies, SMEs also have limitations in terms of financial, technological, and human resources (Gunawan et al., 2021b; Ghazilla et al., 2015; Yaacob & Zain, 2016). This implies that SMEs have specific strengths and weaknesses in responding to changes, especially those required to increase sustainability. Moreover, SMEs depend highly on their owners and managers for formulating and executing strategic decisions, as their values and beliefs concerning the organization and its environment often influence the decision-making process (Ghazilla et al., 2015; Costache et al., 2021). Thus, it can be said that the implementation of sustainability strategies in SMEs is mainly the result of the entrepreneur's desires and convictions.

Ecological sustainability goals can be achieved by adopting ecological entrepreneurship (i.e., ecopreneurship) practices, such as cleaner production practices, especially if the industry is prone to using harmful substances and inefficient resource utilization. Cleaner production is defined as strategic environmental management in the production process to reduce risks for people

and the environment (Indrayani, 2019). Therefore, adopting cleaner production approaches may significantly improve an industry's sustainability.

4.2.1.1. *Threats to sustainability in batik SMEs*

Sustainability in batik SMEs has mainly been associated with addressing ecological problems, which could also affect socio-economic sustainability. Ecological problems in the batik industry occur in most phases of the production process. Water, energy, and resource efficiency are fundamental challenges in the industry (Handayani et al., 2018; Yoshanti & Dowaki, 2017; Yaacob & Zain, 2018; Detik News, 2011; Syahputra & Soesanti, 2016). Wastewater generated by a batik producer can be up to 80% of the total water used (Indrayani, 2019). In addition, batik wastewater contains hazardous substances, such as heavy metals, organic chemicals, and other nonbiodegradable substances, which are often drained into rivers without proper treatment (Handayani et al., 2018; Handayani et al., 2019; Rinawati et al., 2013; Yaacob & Zain, 2016; Detik News, 2011). Polluting rivers with hazardous wastewater could cause serious health risks for the people, animals, and plants near the river (Detik News, 2011).

Energy-wise, prior studies have pointed out that batik SMEs often still use nonrenewable energy, such as kerosene, in the production process (Syahputra & Soesanti, 2016). Inefficient energy use contributes to ozone layer destruction and terrestrial ecotoxicity (the impact of toxic substances emitted to the ecosystem) (Yoshanti & Dowaki, 2017). The industry was also the biggest contributor to yearly CO₂ emissions (Detik News, 2011). Furthermore, the industry's inefficient use of raw materials is also a problem. Previous studies have found that much of the waste in the batik production process is derived from defective products produced during the pattern designing, waxing, and dying processes or through overproduction (Rinawati et al., 2013; Rahmadyanti et al., 2017), as well as in the sewing and packaging processes (Yoshanti & Dowaki, 2017). This study assumes that increasing ecological sustainability could also be key to business improvement, which could help SMEs become more efficient in production, protect the environment, and contribute to society whilst preserving their cultural heritage.

Examples of ecological entrepreneurship (ecopreneurship) practices in the batik industry include using natural dyes (Handayani et al., 2018), increasing resource efficiency (including water, fabrics, wax, and dyes) (Al Rasyid & Asri, 2014; Handayani et al., 2019; Rinawati et al., 2013), and using renewable energy (Yoshanti & Dowaki, 2017). Shifting to natural dyes could protect the environment and is safer for both the crafters' and consumers' skin (Handayani et al., 2018). In addition, using a greener energy source, such as solar panels, could be an ecological option to increase

production capacity and profitability (Yoshanti & Dowaki, 2017; Syahputra & Soesanti, 2016). Regarding resource efficiency, previous studies have found that, if waste can be reduced and recycled, an SME could save up to EUR 5900 annually (converted to the current currency value from IDR), thus improving the efficiency rate up to 88.1% (Rinawati et al., 2013) and contributing to the local economy (Yaacob, 2010). SMEs are often suggested to use local and reuse raw materials (Yoshanti & Dowaki, 2017). Moreover, other researchers have stressed that SMEs should introduce a long-term cleaner production strategy, such as Good Housekeeping (GHK) (Yoshanti & Dowaki, 2017), that could increase their productivity by up to 118% (Detik News, 2011). Another study discussed how disruptive innovations in entrepreneurship could reduce poverty in emerging countries, such as China, and how the community, e.g., cultural group, plays a role in influencing the sustainability of a venture (Wu & Si, 2018).

Based on this review, it appears that the ecological and economic aspects of sustainability have been discussed extensively in the literature. However, only a few researchers have discussed socio-cultural sustainability, especially in the batik industry in Indonesia. Our study, hence, provides additional knowledge in the domain of sustainable entrepreneurship, particularly in the context of SMEs within developing countries.

4.2.2. Barriers to achieving sustainability goals in SMEs

According to (Pinget et al., 2015), barriers to sustainability can be divided into four categories: knowledge barriers, financial barriers, market barriers, and regulatory barriers. However, financial and market barriers are often less perceived as such, mostly because sustainable entrepreneurs are less market-driven and have a long-term financial orientation (Pinget et al., 2015). In addition, there is no substantial difference between sustainable and regular entrepreneurs in terms of their perception of financial barriers (Hoogedoorn et al., 2019). As this study focuses on the ecological and socio-cultural aspects of sustainability, knowledge and regulatory barriers may be more apparent to sustainable entrepreneurs. Ecological and socio-cultural aspects of sustainability may also be apparent in knowledge- and market-related barriers. Socio-cultural aspects of sustainability can be apparent in regulatory barriers, as regulations usually set boundaries in the communities by defining which practices are and are not acceptable in the community.

Knowledge barriers are issues related to the structural absence of information about required technical skills, potential markets, technological innovation, and finding supportive partners for sustainability (Collins et al., 2010; Pinget et al., 2015; Jaramillo

et al., 2019). In batik SMEs, these knowledge barriers may also include a lack of knowledge about the potential risks of using hazardous and toxic substances in the production process that could pollute the environment, endanger the crafters' health, and disrupt the long-term profit (Switch-Asia, 2017). In addition, there is a lack of knowledge about the conservation of plants for natural dyes and limited information about the availability of natural raw materials because the government rarely promotes or subsidizes the use of natural materials (Harren, 2019). These limitations in terms of knowledge, thus, often relate to ecological aspects of sustainability practices, such as reducing pollution and opting for safer raw materials. A lack of sustainability awareness is also caused by limited information obtained by entrepreneurs about the ecological, social, and economic benefits and risks of becoming more sustainable (Harren, 2019; Pujotomo et al., 2018; Sulthonuddin & Herdiansyah, 2021; Caldera et al., 2019). There is also a lack of awareness related to the socio-cultural aspects of sustainability, as entrepreneurs are often unsuccessful in integrating sustainability into their SMEs' cultures. More specifically, for women, inadequate knowledge is often caused by limited access to education and business networks, which influences how women can acquire specific skills and abilities (Bastian et al., 2019), including the competencies to respond to sustainability challenges in business. Thus, knowledge barriers play an essential inhibiting role in SMEs' transition to greater sustainability.

In addition, for SMEs in developing or southeast Asian countries, in general, socio-cultural issues might hinder entrepreneurs from becoming more sustainable (Caldera et al., 2019; Purwadani & Michaud, 2021). Other researchers identified cultural barriers at the institutional level, mostly related to the current norms and legislation in the industry, public policies, and the boundaries of what is considered acceptable behavior (Hoogedoorn et al., 2019). Similarly, as shown by (Bastian et al., 2019), when reflecting on the entrepreneurial practices in MENA countries, in Indonesia, entrepreneurship still seems to be influenced by what society considers acceptable and desirable for different genders (Gunawan et al., 2021a). This implies that women not only have less access to entrepreneurial networks, capital, and knowledge but also have to conduct their businesses within the culturally ascribed boundaries of what is deemed acceptable for women entrepreneurs. In addition to gender, other identity categories, such as age and education, often also suffer from stereotypes in society. According to intersectionality theory, aging professionals are frequently stereotyped as weak, senile, possessing outdated skills, and prescriptive, which results in assumed underperformance at work (Holman & Walker, 2020; Choroszewicz & Adam, 2019). As regulations and policies can create a part of social and environmental justice where each individual has the same rights to social and

environmental progress, it is also important to include them in this study. Insufficient regulations and support from the government for environmental strategies are often found to be barriers to the transition to greater sustainability (Caldera et al., 2019; Purwadani & Michaud, 2021; Cho & Voss, 2011; Ghadge & Kaklamanou, 2017). However, if better-developed (and this is ultimately reflected upon in the final part of this study), regulations and policies could also be considered to act as facilitators.

National governments usually formulate an environmental policy independently from the standards used in sustainability projects conducted by international organizations such as the United Nations, which might be problematic (UNIDO, 2020). Government policies, such as unfavorable tax incentives, low prices of water, high energy subsidies, and weak enforcement of regulations, may cause delays in adopting cleaner production technologies in the industry (Purwadani & Michaud, 2021; UNIDO, 2020). As projects conducted by international organizations follow global standards, such as the SDGs, entrepreneurs are challenged to wisely adopt the recommended ecological practices with the local policies and regulations. UNIDO (2020), short for the United Nations Industrial Development Organization, for instance, suggested that regulatory barriers should be tackled by making technical assistance available, building countries' capability, facilitating access to information on options that have worked, and supporting the generation of knowledge and information on the costs and benefits of reform and nonaction.

4.2.3. Facilitators of sustainability in SMEs

Facilitators of sustainability in SMEs may vary based on the industry. In the tourism sector, Crnogaj et al. (2014) suggested that, apart from socio-ecological factors, political and technological factors should also be considered in fostering sustainability in SMEs. This is due to the importance of the government's role in preserving natural and cultural heritage and ensuring that appropriate infrastructure, such as utilities, taxes, services, and regulations, is provided to support sustainable entrepreneurship (Crnogaj et al., 2014). Technological innovation could help seize opportunities and gain commercial benefits (Crnogaj et al., 2014). Although sustainability researchers in SMEs use different terms, the focus on facilitators in this study is mainly on improving performance to have positive effects on people and the planet.

Entrepreneurs face opportunities and risks in their businesses that are framed by contextual factors, such as informal and formal institutional structures (Munoz & Cohen, 2017). Entrepreneurs, as the agents of institutional change, have to interact with these structures, including building relationships with stakeholders, building

legitimacy, planning market entry strategies, and adopting technologies (Munoz & Cohen, 2017).

In the Indonesian batik industry, conservation values are important to sustainability (Gunawan et al., 2021a). Conservation values concern tradition, conformity, and security (Schwartz, 2012). Moreover, Crnogaj et al. (2014) (p. 381) contend that “socio-cultural sustainability implies respect for social identity and social capital, community culture and its assets, and strengthening social cohesiveness and pride that will enable people to control their own lives.” This implies that cultural aspects are difficult to separate from sustainable behavior, as they often form the social norms attached to people’s ways of living. The presence or absence of social support can trigger different sustainable behaviors among entrepreneurs (Munoz & Cohen, 2017). The presence of social support can positively influence sustainable behavior. Entrepreneurs might become more confident in adopting sustainable behavior, as confidence in one’s abilities generally enhances motivation (Be’ nabou & Tirole, 2002). The necessity to be supported by society is, particularly in a patriarchal society such as Indonesia, important for women to increase their self-confidence and acquire more independence, as well as more ‘institutionalized’ support from the government that their entrepreneurship is being legitimized. This, ultimately, could also positively affect the growth of their venture, as women sometimes tend to believe less in their own capabilities than men (Bastian et al., 2019). In contrast, the absence of social support in society may cause undesirable entrepreneurial behavior.

Furthermore, a positive climate for experimentation and learning about sustainable technologies can be fostered by formal institutions through policy interventions (Munoz & Cohen, 2017). Policy interventions can also help new sustainability-oriented firms survive in the early stages through subsidies and regulatory adaptation (Munoz & Cohen, 2017). Sustainability-supporting policies could also provide intangible benefits, such as building a positive image and a good reputation in the community, attracting skilled and loyal employees, and reducing the risk of noncompliance to socio-ecological sustainability (Costache et al., 2021). Moreover, environmental standards and the competitiveness of new firms can be much improved by government-led knowledge transfer initiatives. Both Costache et al. (2021) and Munoz & Cohen (2017) further mention that pressures from stakeholders, laws, and regulations, as well as standards and certifications, were found to be facilitators of sustainable behavior in business. Thus, it can be concluded that the government plays a significant role in enabling and assisting (female) entrepreneurs in making their businesses more sustainable.

4.2.4. Empowerment towards sustainability for women-led SMEs

As Wood et al. (2021) (p. 11) pinpointed, for women entrepreneurs in a collectivist society such as Indonesia, empowerment means “an enabling process of the individuals to contribute on a collective level for political and social change.” This means that to empower women to sustain their businesses and create political and social change, e.g., a sustainability movement, the programs offered in a particular country should be aligned with the women entrepreneurs’ personal goals and values. Empowerment aims to improve individuals’ capabilities, increase self-confidence to make strategic decisions, and translate these capabilities into desired outcomes (Venugopalan et al., 2021). Entrepreneurs who are not empowered tend to be trapped by institutional barriers, have limited access to potential markets, and lack the resources, knowledge, and information to help their enterprises grow (Venugopalan et al., 2021). However, increasing empowerment is an iterative process that takes time (Wood et al., 2021), similar to the process of making a business more sustainable. Currently, the entrepreneurial programs for women-led SMEs offered by the Indonesian Government are inflexible and require them to produce quick results. This contradicts the women’s needs to internalize entrepreneurial empowerment according to their personal goals and values (in this case, sustainability goals and values). Thus, there appears to be an urgent need to modify sustainable entrepreneurship programs and, specifically, to empower women-led SMEs by providing more space and flexibility for women to engage in the process of making their businesses more sustainable, including considering different age groups and education levels. Ultimately, for women entrepreneurs in such collectivist societies, to create a social movement towards sustainability in the creative sector, the concept of sustainability needs to be aligned with cultural norms, such as religious and ethnic values.

To conclude this literature review, the theoretical concepts used in this study point to the dimensions of barriers in the extant literature as knowledge, socio-cultural, and policies or regulations (Hoogedoorn et al., 2019; Jaramillo et al., 2019; Switch-Asia, 2017; Harren, 2019; Pujotomo et al., 2018; Sulthonuddin & Herdiansyah, 2021; UNIDO, 2020). In comparison, the dimensions of facilitators include ecological, socio-cultural, technological, and political factors (Koe & Majid, 2014; Crnogaj et al., Gunawan et al., 2021b; Ahmad et al., 2020; Munoz & Cohen, 2017). These concepts are further discussed in the discussion section.

4.3. Methods

This study followed the suggestion of Nyumba et al. (2017) to conduct focus group discussions (FGDs) to explore the perceptions and experiences of a target group on a specific issue—in this case, the institutional barriers and facilitators of sustainability

experienced by sustainable entrepreneurs in Indonesia. An FGD is a scientifically recognized technique that involves a group of people aiming to better understand their personal experiences, beliefs, perceptions, attitudes, and challenges regarding a product, service, idea, or policy through a moderated interaction (Nyumba et al., 2017; Krueger & Casey, 2015). The FGD approach is mainly used by researchers to explore a topic that requires collective views, such as the barriers and facilitators of a phenomenon, and to extend knowledge, e.g., the findings of studies relating to the specific topic under study. As Redman-McLaren et al. (2014) argued, it is an appropriate way to extend the analysis of existing qualitative data and to co-create new primary data. As elaborated before, in this exploratory study, we drew on an earlier pilot study. Moreover, FGDs can, through this co-creative nature, also be seen as a tool to jointly come up with new solutions or recommendations concerning a specific issue, which is in line with the last research question.

The technique is also often widely used among participants with tight schedules, and online FGDs are particularly aimed at participants in situations such as the COVID-19 restrictions and have been adopted in various cases by other researchers (Dos Santos Marques et al., 2021; Lathen & Laestadius, 2021).. In addition, an online FGD is more dynamic, modern, and successful (due to its flexibility), especially in addressing problems that often occur in classical FGDs (Nyumba et al., 2017). Virtual FGDs are considered a novel method for qualitative studies during the pandemic (Dos Santos Marques et al., 2021). However, with an online FGD, participants living in rural areas might suffer from an unstable Internet connection or other technical issues. Nevertheless, an online FGD seemed to be the most suitable approach for this study, since the entrepreneurs in the batik SMEs were very busy and, at the time of collecting the data, travel limitations (due to COVID-19) were in place.

The first author facilitated the FGDs as a moderator and was assisted by a research assistant in each FGD who was familiar with the FGD technique. The research assistant advised the moderator of the FGD and was in charge of taking notes and timekeeping. The moderator acted as the host of the online FGDs, facilitated the discussions, and formulated follow-up questions to clarify answers. The set-up of the FGDs and the guidelines for the FGDs were carefully discussed with the other authors. Before addressing the data analysis and its results, we describe the sampling strategy and the participants' characteristics.

4.3.1. Sampling strategy

Most of the participants in this study were purposely selected and invited to participate by approaching the prospective sustainable entrepreneurs through

personal messages via WhatsApp and Instagram, as well as through snowballing. A total of ten participants were selected based on the rules of thumb recommended by other qualitative researchers (Krueger & Casey, 20215; Redman-MacLaren et al., 2014). For example, Bernard (2013) (p. 175) suggests that “10–20 knowledgeable participants, for qualitative research other than ethnographic research, are enough to uncover and understand the core categories in any well-defined cultural domain or study of lived experiences.” Moreover, other researchers suggested that “a sample of six interviews may have been sufficient to enable development of meaningful themes and useful interpretations” (Guset et al., 2006, p. 78). Therefore, we contend that our sample of seven female and three male batik entrepreneurs sufficed to develop meaningful themes and useful interpretations about the institutional barriers and facilitators perceived among women and men entrepreneurs in the batik industry in Indonesia.

SME owner-managers in the batik industry were the participants in this study. The role of owner-managers as the decision-makers in their enterprises and their adequate understanding of the SMEs’ sustainable values, strategies, and practices were the main criteria for selecting them as participants. In addition to being the owner-manager of an SME, one of the participants, Satria, who was also the chief of the Batik Entrepreneurs and Crafters Association in Indonesia, had much overall knowledge in this field and knew much of sustainable batik entrepreneurship, including barriers and facilitators the entrepreneur experience. Observing clear patterns and similar themes in the 10 interviews, we determined that it was likely that a saturation point was reached (Guest et al., 2006; Marshall, 1996). Moreover, it has been noted that a bigger sample size could actually lead the researcher to fail to grasp the essence of complex and diverse data (Braun & Clarke, 2016).

4.3.2. Participant characteristics

The participants’ demographics are provided in Table 4.1. The participants consisted of seven female owner-managers and three male owner-managers, aged 30–53 years old. We used pseudonyms to safeguard their privacy. The youngest SME was 4 years old, and the oldest was 23 years old. The number of employees varied from 3 to 300 people. Most of them produced handmade batik fabrics and ready-to-wear batik. Their ecological initiatives varied, but they mainly used natural dyes (wholly or partly), a wastewater treatment plant, and upcycling products.

Table 4.1. Participant characteristics

No.	Owner ¹	Age (In Years)	Sex	Location	Firm Age (In Years)	No. of Crafters (People)	Products ²	Sustainable Practices ³
1.	Sumiyati	32	Female	Yogyakarta	21	5	BF	PND, IBS
2.	Arum	42	Female	Bantul	14	10	BF	PND, CP
3.	Bagas	38	Male	Bali	6	40	BWF	FND, WOE
4.	Mirna	30	Female	Jakarta	4	10	RWB	FND, AATHP, LM, IBS
5.	Ratna	38	Female	Jakarta	6	3	RWB	FND, ZWC
6.	Sutejo	50	Male	Gunung Kidul	20	15	BF	PND, IBS
7.	Satria	53	Male	Bandung	23	300	BF, RWB, Acc, HI	FND, IBS, WWTP
8.	Laksmi	46	Female	Yogyakarta	17	20	BSF	FND, IBS
9.	Larasati	52	Female	Bantul	13	20	BF, RWB	PND, WWTP
10.	Maharani	53	Female	Bantul	12	19	BF	PND

Notes: ¹ All names used in this study are pseudonyms; ² products: BF = batik fabrics; BWF = batik and woven fabrics; RWB = ready-to-wear batik; Acc = accessories; HI = home interior; BSF = batik and shibori fabrics; ³ sustainable practices: IBS = inherited batik-making skills; CP = continuous production; AATHP = above-average take-home-pay; FND = full natural dyes; PND = partly natural dyes; WOE = women and orphan empowerment; LM = local motifs; ZWC = zero-waste cutting; WWTP = wastewater treatment plant.

4.3.3. Data collection

The study used primary data from two focus group discussions (FGDs). Based on findings from a previous qualitative study about entrepreneurs’ ecopreneurship motivations in the batik industry (Gunawan et al., 2021a), the FGDs were intended to explore the barriers and facilitators of becoming more sustainable in the batik industry more in-depth. FGD guidelines were developed to help the researcher conduct the FGDs (provided in Annex 1). The two in-depth FGDs lasted around 90 min. Each FGD was attended by four participants. The FGDs were conducted in the Indonesian language and were video-recorded. The transcripts were translated into English with non-verbatim transcription. Due to the COVID-19 pandemic, the FGDs were conducted via Zoom. In addition, semi-structured, in-depth interviews with two additional women entrepreneurs in the batik industry were conducted to ensure saturation.

There were a few technical issues that affected the data collection. One of the participants could not join the discussion due to an unstable internet connection. Another participant was quite reluctant in evaluating the government’s role as a facilitator, as well as their programs (Certification for Green Batik Industry Standards),

due to his or her previous close relationship with government officials and prior involvement in one of the programs. However, the researcher managed to put all the participants at ease and convinced them to answer in objective terms about their experiences regarding the effectiveness of the Green Batik Industry Standards.

Reflecting on the data collection, in line with Nyumba et al. (2017), there are three biases that often occur in group-based techniques such as FGDs that need to be discussed. First, to minimize the dominance effect (Nyumba et al., 2017), the researcher gave equal chances to every participant to answer the questions according to their experience and beliefs. In the beginning, the moderator (researcher) also mentioned that any opinion would be highly valued, as they were as important as any other opinions and that the researcher aimed to explore all the answers. Second, although the halo effect was inevitable (Nyumba et al., 2017) due to the well-known status of two participants, the researcher still aimed to explore all the participants' experiences and opinions; thus, follow up questions were formulated to reveal other interesting information from all the participants to include the experiences of the whole group. The well-known participants were urged by the researcher to be aware of their status and respect the other participants by giving them a chance to speak their minds. Last, to avoid group-think (Nyumba et al., 2017), the researcher managed to redirect answers following the participants' conditions to sharing their own experiences.

4.3.4. Data analysis

The primary data were processed using Atlas.ti software for better documentation and data management. The FGDs and interview transcripts were analyzed using content analysis, as Nyumba et al. (2017) suggested. Content analysis allows a researcher to systematically analyze data by organizing the information into categories and recognizing an undetectable pattern by only listening to recordings or reassigning transcripts. The FGD and interview transcripts were coded based on theoretical concepts from the literature to improve the conceptual development.

The data were coded deductively in two stages: initial and focused coding. In the initial coding stage, I listed emerging ideas and identified keywords that often occurred as indicators of important themes. Take into example, the excerpt from Satria. In his excerpt Satria mentioned that "Many crafters think they do not need to follow the global trend because they are happy as they are right now, although it has become apparent that the financial loss is real." I understood this excerpt as the crafters are happy in their comfort zone. This is why I used "comfort zone" as the first order theme. Then, I translated the theme into a more common category

for entrepreneurial barriers that represent “comfort zone”, thus is it included in the risk-averse category. Last, in the focused coding stage, the data were coded and categorized into conceptual themes using inclusion and exclusion criteria. This meant that only data related to the focus of this study were included in this process. For the given example of excerpt from Satria, risk-averse was closely related to the socio-cultural concept as it shows how the crafters (batik community) respond to change. By change, I mean change towards a more sustainable batik industry that comes with all its risks. From Satria’s excerpt, I learnt that the community do not want to take any risk. The entrepreneurs’ perspectives on the barriers and facilitators for sustainability in batik SMEs, especially those related to the ecological and socio-cultural aspects of sustainability, were analyzed.

The reporting of the categories using the most illustrative excerpts concerning the topics identified in relation to the ecopreneurs’ experienced barriers and facilitators was inspired by a discursive approach. This meant that we, while reflecting on the excerpts, not only took into account what kinds of issues these sustainable entrepreneurs experienced, but also looked at how these themes were discussed and interpreted why they were discussed in these ways (Potter & Wetherell, 1989). Lastly, the excerpts, terms, categories, and theoretical concepts were summarized, presented in Tables 4.2 and 4.3, and discussed based on the literature.

Table 4.2. Barriers to sustainability in batik SMEs

Excerpts	Initial Coding		Focused Coding
	1st Theme	Category	Theoretical Concept
I still have to educate my customers about the complexity of the production process of eco-friendly batik products (Mirna, 30, F).	Sustainable products	Lack of batik knowledge	Customer knowledge
It is difficult to shift batik crafters' mindsets towards sustainability due to their low level of education. This is especially true for older crafters (Arum, 42, F).	Elderly crafters	Shift of mindset	Socio-cultural
Many crafters think that they do not need to follow the global trend because they are happy as they are right now, although it has become apparent that the financial loss is real (Satria, 53, M).	Comfort zone	Risk-averse	
I often have doubts about the sustainability of my business and how my idealism could make the business be sustained not only ecologically and socially, but also economically (Ratna, 38, F).	Idealism and business	Harmony	
Unhealthy competition among batik crafters is still happening, also to me. This is what hinders batik crafters to innovate sustainably (Mirna, 30, F).	Unhealthy competition	Sustainable innovation	Regulatory
Batik SMEs still depend on imported raw materials, while Indonesia is a very rich country with an abundance of local resources, particularly those derived from nature (Mirna, 30, F).	Local raw materials		
Based on my experience, people identify sustainable products by their certified use of local materials. For some materials, the certificate is available, but for some it is not (Ratna, 38, F).	Certified local materials		
Batik production is dominated by low-budget markets, such as schools and civil servant uniform producers, and currently the government overlooks the potential of eco-batik for public procurement (Sutejo, 50, M).	Local public procurement	Lack of support	
To me, supporting export regulations for sustainable batik SMEs is important to help them promote their products abroad and increase the SMEs' willingness to provide excellent products (Bagas, 38, M).	Export		
The current standards to certify the authenticity of batik are not supported by laws, which would help protect the rights of batik SMEs who have obtained the certificate (Satria, 53, M).	Intellectual property rights		
There are many civil servants in governmental institutions who make the process of becoming more sustainable more difficult (Laksmi, 46, F).	Bureaucracy	Conflicts of interest	

Table 4.3. Facilitators of sustainability in batik SMEs

Excerpts	Initial Coding		Focused Coding
	1st Theme	Category	Theoretical Concept
Indonesia has a great potential for natural raw materials, which should be further explored. That is why I use natural raw materials in my business (Ratna, 38, F).	Natural raw materials	Local resources	Ecological
In terms of values, our communities welcome our eco-friendly batik, although the synthetic-dyed batik is still preferred due to its brighter colors and lower price (Arum, 42, F).	Sustainable values	Community support	Socio-cultural
We are concerned with the other women crafters in our neighborhood. Therefore, we want to be able to share our knowledge on eco-friendly batik with them so they can try it themselves (Larasati, 52, F).	Sustainability knowledge		
I see emerging interest in sustainable products among youngsters in Indonesia through community groups, and this is what keeps me motivated (Ratna, 38, F).	Sustainable products	Interest among youngsters	
I collaborate with fashion designers for my collections because I think this is a great idea to develop new products, especially to attract young generations (Satria, 53, M).	Collaboration with designers		
For me, the most important support is from the crafters themselves; without them, we are nothing (Arum, 42, F).	Support	Crafters	
Being able to generate a decent income for the crafters is what keeps me going in producing sustainable batik (Mirna, 30, F).	Decent payment		
I am glad that my friend lent me his dyeing machine to make my production process more efficient (Sutejo, 50, M).	Dyeing machine	Efficiency in production	Technological
Digitization to store batik motifs is necessary due to unexpected occurrences of natural disasters, unorganized handling, and the loss of cultural archives (Satria, 53, M).	Batik motifs	Digital archiving	
I would feel more confident if the government would give moral support for sustainable batik SMEs, like us. It means a lot to us (Bagas, 38, M).	Appreciation	Moral support	Political
I always try to abide by the referrals and suggestions from the government, so we can run the business smoothly, and using natural dyes is suggested by the government (Maharani, 53, F).	Regulations	Regulatory support	

4.4. Results

This section explains the FGD results and, thus, the barriers and facilitators to becoming more sustainable in the batik industry as experienced by the interviewed sustainable entrepreneurs. Although, as said before, the participants in the FGDs also mentioned barriers and facilitators related to economic sustainability, this study focused on the other aspects of sustainability, namely ecological and socio-cultural sustainability. This is because economic sustainability has already been widely discussed in the literature. The barriers and facilitators found in this study are presented deductively based on the associated theoretical concepts and are explained by the excerpts from the participants. The knowledge-related, socio-cultural, and regulatory barriers are summarized in Table 4.2. The facilitators, including ecological, socio-cultural, technological, and political support, are presented in Table 4.3.

4.4.1. Barriers to sustainability: Batik entrepreneurs' perspectives

The study found three institutional barriers related to environmental and socio-cultural aspects of sustainability. The barriers included customer knowledge, as well as cultural and regulatory barriers.

4.4.1.1. Knowledge barriers

According to Mirna, one of the FGD participants, customers lack knowledge about sustainable products. She mentioned that:

"I still have to educate my customers about the complexity of the production process of eco-friendly batik products." (Mirna, 30, F)

This excerpt shows that becoming more sustainable requires a considerable effort for SMEs due to the limited knowledge of their customers. Educating the customers about eco-friendly products may take years to fully understand the benefits and influence other customers to buy. The challenge might also be due to the incorrect identification of the target market. The ecological value of an eco-friendly product is most valued by ecologists or sustainability enthusiasts. Low-budget customers have an economic orientation, while eco-friendly customers may be more aware of ecological and socio-cultural sustainability due to ecopreneurship practices.

4.4.1.2. Socio-cultural barriers

Regarding the cultural barriers, the study found three issues: the required shift in mindset among elderly crafters, a lack of harmony between idealism and business, and risk-averse traits amongst the crafters. To shift the mindsets of elderly crafters is

not an easy task for entrepreneurs in the batik industry. Arum shared her experiences in this respect during the FGD:

"It is difficult to shift batik crafters' mindsets towards sustainability due to their low level of education. This is especially true for older crafters." (Arum, 42, F)

From this excerpt, it can be understood that elderly crafters come from an elementary education background. Some of them might not even have had the chance to experience education at all. They have inherited batik-making skills from their parents or ancestors, and they use these skills to earn a living. These elderly crafters seem to be more conservative than younger crafters. This shift in mindset has been a barrier for most entrepreneurs who want to become more sustainable. Since old crafters currently dominate the batik industry, the barrier has become more apparent, especially when the regeneration of crafters is limited. In addition to a low level of education, older crafters are often unwilling to leave their comfort zones. Satria explained this as follows:

"Many crafters think that they do not need to follow the global trend because they are happy as they are right now, although it has become apparent that the financial loss is real." (Satria, 53, M)

This excerpt emphasizes that the crafters are often risk-averse. They are comfortable following their habit in making batik. The older crafters dye batik using synthetic dyes, as their ancestors taught them. Shifting towards sustainability means changing their habitual sequences of making batik, which also means learning a new technique. Learning new techniques might not be accessible for some people due to their cognitive abilities. Socio-culturally, these barriers have become an important issue due to the sustainability of cultural heritage and batik values.

Another cultural barrier experienced by the batik entrepreneurs was the lack of harmony between sustainable idealism and the economic sustainability of the SME. Ratna mentioned:

"I often have doubts about the sustainability of my business and how my idealism could make the business be sustained not only ecologically and socially, but also economically." (Ratna, 38, F)

From this excerpt, it can be understood that, on the one hand, Ratna would like to be sustainable by acting in ecologically and socially responsible ways. On the other

hand, she would like to keep her business economically sustainable. During the FGD, Ratna further explained that, with the current situation (COVID-19 pandemic) where it has been a challenge not only for regular entrepreneurs but also for sustainable entrepreneurs, her business is experiencing a hard time, too. However, the turbulence of the pandemic has made her think more creatively. Although she sometimes had doubts about her idealism and consistency in adopting sustainable practices, she managed to turn the challenges into opportunities.

In addition, Mirna shared her bitter experiences in becoming more sustainable in business. She mentioned that:

"Unhealthy competition among batik crafters also exists. It also happened to me. This is what hinders batik crafters from innovating sustainably."
(Mirna, 30, F)

Mirna further testified that, earlier on, a competitor stole the name of her brand, the concept, and the identity of her business. In this case, nothing could be accomplished to regain the brand name. Therefore, Mirna had to create a new brand with a more mature concept and precautions regarding any disrespectful behavior from competitors. From Mirna's case, we learned that the more unique a business concept is, the more attractive it is for competitors to copy and paste the ideas onto their own business. Worse, in some situations women entrepreneurs seem to be viewed as less powerful in protecting their businesses due to their feminine values of living in harmony. Thus, women often become the victims of disrespectful behavior among business actors. However, seeing challenges as an opportunity is a skill needed by an entrepreneur to sustain their business. This is also what Mirna achieved; she overcame the misfortune by building a more sustainable enterprise with a different brand name, and now the brand is internationally renowned.

4.4.1.3. Regulatory barriers

Lacking support from the government and bureaucracy issues have created substantial barriers to SMEs' intentions to become more sustainable. The government's lack of support includes support for promoting local raw materials, local public procurement, and intellectual property rights (IPRs). Related to the (lack of) support for local raw materials, Mirna shared her opinion as follows:

"Batik SMEs still depend on imported raw materials, while Indonesia is a very rich country with an abundance of local resources, particularly those derived from nature." (Mirna, 30, F)

From the excerpt, it becomes clear that Mirna emphasized that Indonesia has much natural potential to be explored. However, this great potential remains underexplored. One of the local raw materials widely available in Indonesia is hemp fiber. Mirna knew about this natural potential from other crafters but had not heard any recommendations from the government about these local raw materials, which can be used in batik production. Mirna further mentioned that the crafters would significantly benefit from hemp fiber in batik production. Ecologically, they could protect the environment from chemical pesticides, which is the most durable natural fiber. Despite the abundance of benefits of using hemp fiber, the plant is similar to cannabis, which is forbidden from being cultivated in Indonesia. This might explain why using hemp fiber is not recommended by the government.

The following regulatory barrier is lacking support from the government in certifying local raw materials and local public procurement. The concern was explained by Ratna:

“Based on my experience, people identify sustainable producers by their certified use of local materials. For some materials the certificate is available, but for some, it is not.” (Ratna, 38, F)

This excerpt emphasizes that, in Indonesia, certified local raw materials for batik production are still rare, whereas in developed countries, these raw materials play an important part in producing sustainable products. This implies that, if batik SMEs could use certified local raw materials at an affordable price, they could market their sustainable products abroad and have a greater chance of complying with export regulations. Furthermore, still related to the locality, limited local public procurement is also a problem that hinders SMEs from producing eco-friendly batik. Sutejo explained that:

“Batik production is dominated by low-budget markets, such as schools and civil servant uniform producers, and currently, the government has overlooked the potential of eco-batik for public procurement.” (Sutejo, 50, M)

From what Sutejo explained, it can be deduced that the demand for eco-friendly batik products currently mainly comes from nongovernmental and nonschool customers. In Indonesia, however, batik uniforms are mandatory in every governmental institution and school. Batik has become the identity of the students and civil servants. Public procurement follows the regulations and budget of each region. If the regulations do not force these institutions to purchase eco-friendly products

(batik) and the budget is limited, public procurement orders more affordable synthetically dyed batik, or even worse, uniforms from textiles with batik-like motifs.

In addition, there appears to be a lack of supportive export regulations for batik producers. This barrier was mentioned by Bagas:

“To me, supporting export regulations for sustainable batik SMEs is important to help them promote their products abroad and increase the SMEs’ willingness to provide excellent products.” (Bagas, 38, M)

Hence, Bagas emphasized that SMEs are having difficulties meeting export regulations. As a consequence, not many SMEs can sell their products abroad. Whereas, if the SMEs were able to meet the standards, they could obtain more recognition from international consumers who are more sustainability-oriented. In addition, the batik SMEs would also become more motivated to produce sustainable products.

In terms of intellectual property rights (IPRs), Satria shared his experience that protecting his products from irresponsible SMEs is a great challenge. He further explained that,

“The current standards to certify the authenticity of batik are not supported by laws, which could help protect the rights of batik SMEs who have obtained the certificate.” (Satria, 53, M)

During the FGD, Satria shared that he tried to use the latest technology of Batik Mark Apps offered by the Center of Craft and Batik (BBKB). These apps help customers identify authentic batik, but when other SMEs used the same pattern, he faced difficulties claiming his products.

Lastly, bureaucracy was part of the regulatory barriers. According to Laksmi, Indonesia is too rigid as a result of bureaucracy. She further mentioned:

“There are many civil servants in governmental institutions who make the process of becoming more sustainable more difficult.” (Laksmi, 46, F)

From the excerpt, it can be understood that Laksmi was having difficulties when she tried to become more sustainable. This might be due to the multilayered bureaucracy in Indonesia, where officials may have different interests from the crafters, causing

confusion and wasting time, energy, and money. In the batik industry, innovation, such as sustainable innovation, would be at its best if the crafters and the system could have the same goals towards sustainability. Socio-culturally, this barrier seems to show that the system is not yet supported.

4.4.2. Facilitators of achieving sustainability goals: Batik entrepreneurs' perspectives

Shifting towards greater sustainability is a challenge and needs support from different stakeholders and the availability of resources. According to the Indonesian batik entrepreneurs involved in the FGDs, this study found that ecological, technological, socio-cultural, and political or governmental support were the main institutional factors that influenced the entrepreneurs to become more sustainable.

4.4.2.1. Ecological facilitators

Ecologically, the presence and availability of local resources acted as an important facilitator for the entrepreneurs. Batik entrepreneurs, such as Ratna, believe that:

"Indonesia has a great potential of natural raw materials, which should be further explored. That is why I use natural raw materials in my business."
(Ratna, 38, F)

Here, Ratna's excerpt shows that the country where the entrepreneurs currently live offer an excellent opportunity to support the entrepreneurs to become more sustainable. However, the natural raw materials are still underexplored and poorly managed by the government. Some entrepreneurs who understand how to find and use the raw materials seem to be more interested in using local raw materials (for example, natural dyes). This emphasizes that further exploration and promotion is needed to foster more entrepreneurs in becoming more ecologically sustainable.

4.4.2.2. Technological facilitators

Technologically, the entrepreneurs mentioned that efficiency in batik production and digital archiving are important factors supporting ecological and socio-cultural sustainability. Production efficiency, such as using a dyeing machine for production, can help an entrepreneur save time and energy in dyeing the fabrics when they receive big-quantity orders from customers. In this excerpt, Sutejo explained as follows:

"I am glad that my friend lent me his dyeing machine to make my production process more efficient." (Sutejo, 50, M)

From the excerpt, we understand that Sutejo was supported by the offer to use the dyeing machine for his production. He further explained that using the dyeing machine could save his time and energy as it became more efficient than dyeing manually. Technological innovation in the batik industry could be an option to accelerate production time while maintaining the traditional method of making batik to preserve its cultural values. Ecologically, the dyeing machine reduces production time and cost. Culturally, it does not affect the authenticity of batik; thus, it preserves the cultural heritage.

Moreover, digital archiving was also mentioned by the entrepreneurs, such as Satria. He shared his experience concerning archiving batik motifs in digital form, such as vector. Satria mentioned that:

"Digitization to store batik motifs is necessary due to unexpected occurrences of natural disasters, unorganized handling, and the loss of cultural archives." (Satria, 53, M)

This means that, traditionally, batik motifs are stored in a bundle of paper. Satria emphasized that Indonesia is prone to natural disasters such as earthquakes, floods, eruptions, etc. By archiving batik motifs digitally, he does not have to worry about these natural disasters. The data can be stored in digital storage, such as the cloud, a flash disk, or a hard disk, so the collection of batik motifs is not lost, destroyed, or burnt in fire. Digital method of storing data could, thus, preserve cultural heritage.

4.4.2.3. Socio-cultural facilitators

Regarding socio-cultural aspects of sustainability, factors related to community support and creating interest among youngsters and the crafters were important for the entrepreneurs in the batik SMEs in Indonesia. Arum, one of the entrepreneurs, mentioned during the FGD that:

"In terms of values, our communities welcome our eco-friendly batik, although the synthetic-dyed batik is still preferred due to its brighter colors and lower price." (Arum, 42, F)

From this excerpt, we understand that, on the one hand, the communities show a positive attitude towards the ecological practices implemented in the batik SMEs. On the other hand, when it comes to buying power and willingness, people in the communities choose to buy affordable batik products with synthetic dyes. This implies that eco-friendly batik products are less desired due to personal preference

and economic reasons. This might be the case since people are used to brightly colored and affordable batik. In addition, they might have limited knowledge of the values of producing eco-friendly batik. Furthermore, in addition to their concerns for the community in general, women entrepreneurs in the batik industry have concern for other women batik entrepreneurs in their communities. As Larasati in the excerpt below stated:

"We have concern for the other women crafters in our neighborhood. Therefore, we want to be able to share our knowledge on eco-friendly batik with them, so they can try it themselves." (Larasati, 52, F)

From this excerpt, we understand that, in order to have the community support Larasati's intentions to become more sustainable, she needs to share her knowledge in (ecological) sustainability with other batik entrepreneurs. She needs to motivate the others to be confident in adopting sustainable innovation in their businesses by educating the community about the benefits of sustainability for the people, the environment, and the local economy. If the community would start using eco-friendly batik products, the entrepreneurs would be more motivated to become sustainable. However, from the FGD, we learned that the entrepreneurs did not seem to have a major problem with support from the community

Increasing interest in batik production and consumption among young generations has been an issue in the batik industry for decades. Nevertheless, entrepreneurs do see youngsters' interest in more sustainable products, including batik (see Ratna's excerpt). Similarly, Satria gained interest from younger generations as he collaborated with fashion designers. The following excerpts show how interest for batik products among youngsters can be further increased:

"I see emerging interest in sustainable products among youngsters in Indonesia through community groups, and this is what keeps me motivated."
(Ratna, 38, F)

Satria added:

"I collaborate with fashion designers for my collection, and I think this is a great idea to develop new products, especially to attract young generations."
(Satria, 53, M)

From the above excerpts, we learn that both entrepreneurs observed and experienced increasing interest among younger generations through different channels. As mentioned by Ratna, a sustainable community group was experienced as a motivational way to approach and support sustainability-oriented younger generations. Many activities related to sustainability could be pursued through this community group to encourage sustainable behavior. Furthermore, Satria experienced that, by collaborating with fashion designers, he managed to develop new collections of batik, which invited young customers to visit his batik gallery. Satria seemed excited about sharing his experience because he could unexpectedly target younger generations.

Lastly, relating to socio-cultural factors, support from the crafters and the motivation to improve the crafters' prosperity was a positive influence for the entrepreneurs to become more sustainable. This was apparent in Arum's and Mirna's excerpts. Arum highly appreciated the crafters, saying:

"For me, the most important support is from the crafters themselves; without them, we are nothing." (Arum, 42, F)

From this excerpt, it can be concluded that Arum's business depends on the crafters' contributions, such as in production, marketing, promotions, and distribution. The crafters seem to be the reason why has Arum continued her business until now. This is also supported by Mirna's excerpt, in which she mentioned that:

"Being able to generate a decent income for the crafters is what keeps me going in producing sustainable batik." (Mirna, 30, F)

In this excerpt, Mirna explained that what motivates her to be sustainable in her business is to provide a decent payment for her crafters and improve the crafters' prosperity. She further told the moderator that she would like to erase the image of poor batik crafters and attract younger generations to the industry, continuing the cultural heritage of batik.

4.4.2.4. Political facilitators

Finally, moral support from political actors appeared important for batik entrepreneurs to become more sustainable. As Bagas mentioned:

"I would feel more confident if the Government would give moral support for sustainable batik SMEs, like us. It means a lot to us." (Bagas, 38, M)

From the FGD, we understood that Bagas experienced a boost in his confidence to sustainably produce batik products when the government appreciated or encouraged him to become more sustainable. It seemed to generate additional energy that keeps him committed to producing sustainable batik products.

Moreover, Maharani also added that complying with government referrals and suggestions is important for her business. She mentioned that:

"I always try to abide by the referrals and suggestions from the Government so we can run the business smoothly, and using natural dyes is suggested by the government." (Maharani, 53, F)

The excerpt shows that the government plays a major role in encouraging or discouraging women entrepreneurs to become more sustainable. Positive moral support could encourage a positive attitude towards sustainability. Consequently, it might influence society perspectives on sustainability and grow interest in sustainable products.

4.5. Discussion

4.5.1. Barriers

4.5.1.1. Knowledge barriers

In the analysis of the focus group data, this study found barriers to achieving higher levels of sustainability in the lack of customer knowledge about sustainable batik. This might be because customers of batik products are mostly women. Women in Indonesia still experience limited access to information, especially those who live in rural areas; thus, their knowledge regarding sustainable products is still limited. Knowledge barriers have also been identified in previous research on individual entrepreneurs, who may have limited information about the potential benefits and risks of becoming more sustainable (Harren, 2019; Pujotomo et al., 2018; Sulthonuddin & Herdiansyah, 2021; Caldera et al., 2019), but none of these studies has mentioned the struggle connected with a lack of knowledge on the customer side. This study, thus, adds a new perspective on knowledge barriers, specifically in the context of batik SMEs.

4.5.1.2. *Cultural barriers*

Analyzing the cultural barriers, the findings in this study support the findings of Switch Asia (2017), where poor education became a problem for women crafters. Ultimately, this is because the batik SMEs are dominated by elderly women, who, in the past did not have the chance to experience proper education or were forced to help their families due to poverty. Poor education affects their choices of living and their self-confidence in adopting sustainable practices (Switch-Asia, 2017). Moreover, elderly crafters have often been making batik for more than 20 years, and it has become a cultural habit to maintain using the same techniques over the years. This finding adds to Bastian et al.'s (2019) research, which found that women in an unsupportive culture tended to be, generally, less confident in making strategic decisions. According to intersectionality research, elderly people are often stereotyped as weak, senile, possessing outdated skills, and prescriptive, which results in perceived underperformance at work (Holman & Walker, 2020; Choroszewicz & Adams, 2019). This explains why elderly women crafters with low education levels are often discriminated against by younger crafters. However, we argue that being old does not necessarily mean being unable to perform. Thus, a tailored approach for older crafters needs to be developed so that the 'new' paradigm of pursuing entrepreneurship, which adopts sustainable values, and the 'old' ways of doing business can be merged and made acceptable for older crafters as well.

In contrast, Ratna showed her confidence in creative thinking and a willingness to innovate. Although Ratna is also a woman, she is relatively young (in her 30s) and was able to obtain a Master's degree. The fact that Ratna was born in a less conservative environment might be the reason that she was more open-minded and took more risks compared to the older crafters. Being well-educated increased her self-confidence. As Be'nabou & Tirole (2002) (p. 871) argued, confidence in one's ability could enhance motivations, in this case, in becoming more sustainable.

Furthermore, learning from the case of Mirna, the feminine value of living in harmony was reflected in her decisions to build a new brand instead of insisting on retrieving her old brand from the competitor. This often happens to women entrepreneurs. Unlike men, women often tend to make peace instead of creating controversies (as a result of taking an extreme position) in a community because women tend to care about others (in this case, the crafters who depend on jobs to earn a living) (Gunawan et al., 2021a). Thus, based on the findings in this study, age, education, and gender might influence an entrepreneur's agility in shifting their strategy towards sustainability.

4.5.1.3. Regulatory barriers

Related to regulatory issues, the entrepreneurs mentioned several sustainability-inhibiting issues the government could address. This is in line with previous studies, which have found that insufficient government support negatively influences the propensity of sustainability (Caldera et al., 2019; Purwadani & Michaud, 2021; Cho & Voss, 2011; Ghadge & Kaklamanou, 2017). In addition, political support for sustainability, as affirmed by Bagas, can not only increase the entrepreneurs' motivations, but also enable the government to contribute to preserving natural and cultural heritage and ensuring appropriate infrastructures such as utilities, taxes, services, and regulations (Crnogaj et al., 2014). This study also hinted at bureaucracy as a barrier to sustainable crafting, which has not been discussed in previous studies. The more complex the official surrounding bureaucracy, the less flexibly the ecopreneurs could adapt to change. Whereas, given the nature of the batik industry as dominated by women, flexibility and space are what they need to grow their businesses, contribute to society, and create political and social movements (Wood et al., 2021) for sustainability. However, little is known about the influence of bureaucracy on the propensity of batik entrepreneurs to become more sustainable, and hence, it needs further investigation.

4.5.2. Facilitators

4.5.2.1. Ecological facilitators

However, previous researchers have not discussed that ecological facilitators found in the Indonesian natural environment could become a supporting factor for these entrepreneurs. SMEs could gain competitive advantages from ecological practices (Ahmad et al., 2020) such as using natural materials. This means that Indonesian SMEs have the privilege to improve their competitiveness through ecological practices compared to nonecologically supporting countries. Naturally, one could argue that women are close to nature due to the fact they are often (and particularly in these developing countries) socialized to take care of their direct environment. Consequently, the abundance of natural materials provided in Indonesia could empower women-led SMEs more than men-led SMEs to produce eco-friendly products. Moreover, technological factors that support sustainability in batik SMEs align with the argument that technological innovation could help seize opportunities and gain commercial benefits (Crnogaj et al., 2014) without disturbing cultural values.

4.5.2.2. Socio-cultural facilitators

Concerning socio-cultural facilitators, the findings suggested that the community of the younger generation crafters is important for SMEs to become more sustainable.

These findings are also supported by prior studies (Gunawan et al., 2021a; Koe & Majid, 2014; Gunawan et al., 2021b). The entrepreneurs in this study were concerned with people's welfare and interests (Schwartz, 2012). As crafters are often part of an entrepreneur's family, the findings in this study also support that an entrepreneur's (sustainable) behavior is influenced by family members' opinions or support (Koe & Majid, 2014; Gunawan et al., 2021b). This was, for instance, demonstrated in the excerpts from Arum and Mirna, as they emphasized that the crafters' support and their prosperity were the main concerns of the entrepreneurs. These ecopreneurs are active women entrepreneurs in a collectivist society, as extensively explained in Wood et al.'s (2021) research, which exemplified how women's entrepreneurship often focuses more on fulfilling the community's needs instead of their personal needs.

4.5.2.3. Technological facilitators

Technological innovations have been widely discussed in the literature and are considered to be one of the largest supporting factors for sustainability (Crnogaj et al., 2014). Similarly, this study found that the entrepreneurs felt supported by the presence of technology in their production systems. Technological improvement can be used in many of the processes in batik production. In addition, although batik production is strongly associated with traditional cultural processes, technology can help in increasing efficiency in the dyeing, motif-tracing, washing, and drying processes to improve ecological contributions. In addition, it could safely archive batik motifs to prevent the motifs from damage or loss, which is considered as safeguarding cultural heritage. As Crnogaj et al. (2014) emphasized, technologically supported SMEs could better support sustainable development, as technology often contributes to opening new opportunities, such as ecological improvement and the possibility for research and development (R&D). We also observed that technological innovation was mainly mentioned as a facilitator of sustainability by male entrepreneurs. It seemed that women entrepreneurs were less confident with using technology to accelerate their businesses to become more sustainable. The reason might be the stereotype that technology is associated with men (in terms of workplace culture, payment, education, retention, leadership, employment, and representativeness) (White, 2021). Thus, there is an urgent need to educate women entrepreneurs in the batik industry to increase the adoption of technological innovations for sustainability reasons.

4.5.2.4. Political facilitators

Political stability could increase entrepreneurs' confidence in their strategic decisions (Crnogaj et al., 2014). This was also apparent in this study. The batik entrepreneurs would feel more confident if the government were more supportive and showed

more appreciation to sustainable entrepreneurs. The entrepreneurs believed that moral support from the government and from society would further motivate them to become more sustainable. This is because government institutions shape the regulatory environment wherein businesses operate and provide physical and commercial infrastructure to help SMEs grow towards sustainability (Crnogaj et al., 2014). Thus, political support factors play an important role in enabling more sustainable batik production. Again, this is supporting the arguments of UNIDO (2020) that women in a collectivist society tend seek political support in entrepreneurship due to their focus on living in harmony with the institutional environment.

Based on these findings, this study proposed a number of policy recommendations (for example, for the Center of Craft and Batik (BBKB)) to foster batik SMEs in becoming more sustainable. The findings suggested that differences in behavior existed between older and younger generations and between well-educated and poorly educated crafters, and hence, these categories need to be supported and directed differently. Moreover, it is important to consider that the barriers and facilitators were perceived differently between entrepreneurs with stronger sustainability mindsets (committed entrepreneurs) and those who only followed the sustainability trend (follower entrepreneurs).

Reflecting on our findings, we argue that 'committed' sustainable entrepreneurs tended to be more independent, confident, and innovative in running their sustainable businesses than 'follower' sustainable entrepreneurs. They were intrinsically motivated for sustainability, for example, by values such as altruism. Although they were fully aware that shifting towards sustainability is a challenge, this type of entrepreneurs would put much effort into raising the awareness of people and toward implementing sustainable practices. In contrast, 'follower' sustainable entrepreneurs tended to be motivated by extrinsic factors, such as economic benefits and being inspired by the success of sustainability-committed entrepreneurs. They would produce more sustainable products when the demand was high, but when the demand was low, they would turn back to producing regular products. Follower entrepreneurs depended on the government's role in supporting their businesses through incentives, trainings, and rewards. To conclude, the two categories of sustainable entrepreneurs were distinctive in their orientations and motivations.

Accordingly, the study proposed several recommendations while considering these differences. In our recommendations, the categories for improvement were divided into three domains, namely the socio-cultural, regulatory, and technological domains. Ecological improvements were mostly related to the regulatory and technological

domains, and the availability of local natural materials was not specifically found to act as a facilitator for SMEs. These recommendations hopefully can support the BBKB in addressing and reducing barriers and improving sustainability-facilitating factors. The recommendations are presented in Table 4.4:

Table 4.4. Recommendations for the Center of Craft and Batik (BBKB)

No.	Issues	Young Generations	Older Generations	Committed SMEs	Follower SMEs
1.	Socio-cultural	- Encourage younger generations to share their best practices in sustainability with older crafters by providing incentives (such as tax waivers or national and international recognition). - Support younger generations to explore and express their creativity in developing batik industry sustainably by creating theme-based exhibitions or KTL. - Facilitate collaborative actions and create synergy among stakeholders in the batik industry to encourage sustainability.	- Support older crafters' skills to make batik, which emphasizes the preservation of cultural heritage, e.g., by creating special events dedicated to older crafters and promoting traditional methods of making batik. - Provide incentives for crafters who are willing to innovate and become more sustainable, such as pension funds, education funds, and health funds. - Offer trainings and workshops for older crafters to become more sustainable, which should be tailored based on their limitations to maintain the crafters' consistency and commitment to becoming more sustainable.	- Appreciate committed entrepreneurs, e.g., by creating a competition with guaranteed national or international exposure for their brands to keep them motivated and to stimulate more involvement in sustainable practices. - Ensure an excellent service for SMEs to show that the government supports them in promoting sustainability in the industry.	- Create working groups among follower SMEs that are mentored by a committed SME within the same region to help the follower SMEs become more sustainable and build long-term mindsets. - Evaluate the SMEs by conducting regular assessments of the SMEs' performances, especially of their implementations of sustainable development. - Encourage SMEs to collaborate with fashion designers to improve the attractiveness of their products.
2.	Regulatory	- Support the use of locally produced raw materials, such as hemp fiber, by developing a policy that strictly obliges SMEs to use these local materials. - Support local batik SMEs by developing a policy that strongly encourages schools and government institutions to use locally produced eco-batik. - Support the export of sustainably produced batik by providing export workshops that provide information on regulations, markets, taxes, etc., to assist the SMEs in fulfilling export requirements. - Protect the IPRs of batik producers by developing and enforcing laws that protect batik SMEs against plagiarism. - Reduce bureaucracy to avoid conflicts of interest between sustainable SMEs and civil servants. - Develop a standard for batik crafters' take-home pay to ensure the crafters are paid in line with their efforts.			
3.	Technological	- Develop machines that can help the SMEs improve their production efficiency without ignoring the importance of the authenticity of batik. - Develop a system that can archive batik-related data digitally to avoid the loss of data, and provide workshops to assist the SMEs in using the system.			

A specific recommendation for the BBKB is to better support women-led batik SMEs in Indonesia and to support the empowerment of women entrepreneurs in this sector. This study suggests that every woman in the SME sector, as an essential change agent towards sustainability, should be involved in all aspects of the process of becoming more sustainable: in conceiving, planning, executing, evaluating, and developing further improvements. As recommended in prior research, increasing their participation in industry associations allows women to build networks and connect with stakeholders beyond their families (Munoz & Cohen, 2017). This implies that women could play a significant role in strategic decision-making processes, such as in responding to sustainability challenges. Furthermore, access to resources mostly depends on institutional structure (Venugopalan et al., 2021), in this case, in the creative industry. Thus, if they are more actively included in political environments, access to resources and education is also more accessible for women. This also refers to considering the intersections of other identity categories among women entrepreneurs, such as different age groups and education levels. In addition, multiple stakeholders, such as formal or informal, private or public, and profit or nonprofit institutions, should be involved in the process of making the industry more sustainable and gender-equal to allow horizontal–vertical and bottom-up collaboration and coordination among actors in the batik industry. The BBKB should also encourage women entrepreneurs more intensely than men entrepreneurs in adopting technological innovation to accelerate their sustainable behaviors. Accordingly, this would ensure more inclusiveness and equality in the batik industry.

4.6. Conclusions

To conclude, this study explored barriers and facilitators of achieving higher levels of sustainability in batik SMEs in Indonesia by conducting and analyzing data from two FGDs with eight SME owner-managers while building upon earlier empirical insights. The findings showed that the barriers faced by the owner-managers included a lack of customer knowledge, socio-cultural limitations, and regulatory aspects that hampered more sustainable batik crafting. Facilitators of sustainability in batik SMEs included ecological, technological, socio-cultural, and political factors. This study also found that the lack of availability of natural raw materials did not seem to be a barrier for the batik SMEs. However, the potential of local products, such as hemp fiber, has not been fully explored and considered as alternative raw materials by the government for sustainable batik production.

From a theoretical perspective, we contended that sustainable entrepreneurs in the batik industry could be categorized into ‘committed’ and ‘follower’ entrepreneurs. This categorization was based on the entrepreneurs’ orientations towards sustainability.

Accordingly, our study, thus, contributed to the sustainable entrepreneurship literature by making sense of the diverse sustainable entrepreneurs in the batik industry and how their motivations were related to their (institutional) environments and personal values. Moreover, since the batik industry is dominated by women, addressing sustainability issues also enriched the women entrepreneurship literature by providing important insights on how women crafters in a middle-income country, such as Indonesia, perceive institutional barriers and facilitators to becoming more sustainable within their entrepreneurship. This study also contributed to discussions regarding the empowerment of women through entrepreneurship in collectivist societies by illustrating how, through their entrepreneurship, these women were able to acquire a better socio-economic status and, hence, were able to act as important role models for women's emancipation.

From a managerial perspective, the Center of Craft and Batik (BBKB) might be inspired to draw on our recommendations when formulating their policies to foster the Indonesian batik SMEs to achieve higher levels of sustainability. The policy implications are obviously contextual in the sense that these should be sensitive in terms of age, education, and the type of entrepreneurs they are geared towards. Technological innovations should be adapted according to the specific needs of the batik industry, too. These needs include, for example, manually covering the motifs of the fabric with hot wax. In addition, as women entrepreneurs are the main agents of change in the batik industry, this study provided insights for these entrepreneurs to address institutional barriers and maximize the use of their current facilities. Considering the maximization of the potential of women in advancing the batik industry through sustainable practices, policymakers should facilitate women entrepreneurs in terms of their access to networks and resources, support them in sustainable growth (ecologically, socially, and economically), and eliminate barriers to sustainability through inclusive participation in developing regulations.

Although the sample was limited geographically, as well as in size, we contend that this exploratory study provided important indications regarding the factors hampering sustainability in the Indonesian batik industry. We acknowledge that the FGDs did not specifically group the participants based on their geographic locations, age groups, or educational background within one FGD due to the SMEs' tight schedules. However, given the exploratory nature of this study, we argue that it was important to have variance in the FGDs and to, firstly, explore the experiences of batik female and male entrepreneurs. In future studies, the number of participants could be increased, so the results could become more representative with regard to specific regions, age groups, or education levels. Next to this, more action research

could be conducted in the future to increase motivations and practices concerning sustainability since cultural systems are slowly changing, as argued before, and hence, structural change concerning sustainability, as well as gender equality, is challenging. Accordingly, certain restrictive cultural barriers could be eliminated to allow inclusive, sustainable practices in the batik industry and to increase women's motivations to become ecological entrepreneurs, as well as to start more sustainable businesses.

Chapter 5

Conclusion

Chapter 5

Summary and conclusion

In this chapter, a summary of the dissertation will be provided. The summary is followed by the main conclusions of the three self-contained, yet connected studies. Then, the theoretical and practical contributions are presented. Finally, the limitations and an agenda for future research will be presented.

5.1. Summary of the dissertation

Many studies focused on the economic implications of the adoption of ecological innovations in the production process. Still, little attention has been given to how entrepreneurs achieve socio-ecological sustainability in the batik industry. This dissertation's objective was therefore to better understand the phenomenon of ecopreneurship in the batik industry through exploring how and why owner-entrepreneurs in the batik industry adopt ecopreneurship practices. The focus was on value-based motivations in relation to the various intersections of identities. Subsequently, additional insights about the role of external factors such as institutional barriers and facilitators from the perspective of batik entrepreneurs was obtained.

By becoming more eco-friendly, these Indonesian SMEs could not only gain ecological benefits such as less pollution, and a healthier and safer workplace, but they could also gain societal benefits such as keeping their crafters healthier, preservation of cultural heritage, next to economic benefits such as cost reduction, and increasing profitability. Focusing on the ecological sustainability of the SMEs could thus contribute to a better understanding of how the batik industry can be made more sustainable in all dimensions (people, planet, and profit) and consequently accelerate the achievement of the Sustainable Development Goals (SDGs), especially SDG 12 (Responsible Consumption and Production).

To meet the research objectives, the following research question was formulated: *How do individual motivations of Indonesian batik entrepreneurs and perceived institutional drivers and barriers play a role in their process of becoming more sustainable?* Based on this research question, first the knowledge about the motivations to adopt ecopreneurship practices from three domains: ecological innovation, ecopreneurship, and female entrepreneurship was integrated. Recent literature was reviewed (2008

– 2019) concerning the factors motivating ecopreneurship, with a focus on the role of gender socialization within these processes. Once this existing knowledge was integrated and the motivational factors among women and men were identified, we delved deeper into this phenomenon by exploring how entrepreneurs are motivated to adopt ecopreneurship practices in a more specific context, i.e., the Indonesian craft sector.

Special attention was paid to the value-based motivation theory by Schwartz (2012) to understand the personal values that motivate entrepreneurs. In addition, we investigated how the entrepreneur's identities, such as gender, ethnicity, and religion intersect and how the entrepreneurs' values were constructed while adopting ecopreneurship practices. After acquiring a better understanding of what kind of values motivate these entrepreneurs, we investigated the institutional barriers and facilitators that influence the entrepreneurs while endeavoring to become more sustainable.

5.2. Main findings from the studies

This section presents the findings and the main conclusions of the three studies. The three studies include the conceptual study presented in Chapter 2, the empirical study, based on interview data presented in Chapter 3, and the empirical study which used focus group (FGD) material presented in Chapter 4 of this dissertation.

5.2.1. Chapter 2

In the conceptual study, a systematic literature review approach was used to investigate the current literature regarding different drivers of ecopreneurship among women and men. We analyzed our findings using descriptive and thematic analyses. In the study, 35 relevant articles were selected from three domains: ecological innovation, ecopreneurship, and female entrepreneurship. The articles were mostly published in 2010, 2014, and 2017 (seven, five, and six articles consequently), and almost all (34 articles) were empirical studies. We found that 34 articles were empirical studies, whereas only one was a conceptual study. The methods used were quantitative, qualitative, and mixed methods. None of the studies used Indonesia as their research context. At the same time, as argued in the introduction, Indonesia offers a very relevant country context to conduct studies on sustainability issues in industries, as well as ecopreneurship. From the descriptive analysis, we concluded that in the Web of Science database between 2008 and 2019, a conceptual study which discusses the different drivers among women and men in adopting ecopreneurship practices was still lacking.

In the thematic analysis of the 35 articles, we identified individual and organizational drivers of adopting ecopreneurship practices. These drivers include stakeholder pressure, organizational culture, regulation, branding, market pressure, legitimacy, orientation, risk management, attitude, capabilities, and leadership. However, this study focused specifically on individual (value-based) drivers such as personal, ecological, economic, social, and family values. The personal values that drive ecopreneurship include feeling responsible for the environment. The ecological values include protecting the environment, while economic values, mainly related to gaining financial benefits from ecological initiatives, drive entrepreneurs to adopt ecopreneurship. Moreover, social values that focus on improving human well-being and family values include caring for family welfare, also spur the adoption of ecopreneurship practices. In terms of the differences in drivers between women and men, it was concluded based on a review of the literature, that female entrepreneurs are generally considered to be more strongly motivated by personal, ecological, social, and family values in the adoption of ecopreneurship practices in SMEs compared to male entrepreneurs. In contrast, male entrepreneurs generally seem more strongly motivated by economic values than female entrepreneurs. It was also noticed that most studies that discussed the differences in ecopreneurship motivations mainly identified the differences based on the entrepreneur's sexual identity (being a woman or man) and not their gender socialization (feminine and masculine values), and how gender structures impact their ecopreneurship. We concluded that the knowledge about the different drivers of ecopreneurship practices in SMEs was still scattered, and that a gendered conceptual model, which includes gender socialization and gendered values as important factors, is needed to advance knowledge in the apparent overly gendered-ecopreneurship studies.

5.2.2. Chapter 3

In this chapter, the second study, which concerned an exploratory study, was presented. The data used in the study was derived from 16 interviews with diverse owner-managers of craft SMEs in Indonesia, observations, and a social media analysis. The study identified value-based motivations (Schwartz, 2012) in adopting ecopreneurship practices among the entrepreneurs in the craft SMEs. In this study, the entrepreneur's intersections of identities such as gender, ethnicity, and religion, were considered important and influential factors in doing and experiencing (ecological) entrepreneurship. It was acknowledged that identities are fluid and multiple, rather than stable and constructed, and they inform the process of "becoming, in this case, becoming more eco-friendly in business. Moreover, mapping the entrepreneurs' identities helped us understand the interrelationship between individual, institutional, historical and societal factors that influence an entrepreneur's decisions.

Based on the study, we posit that self-enhancement, conservation, and self-transcendence values motivate the entrepreneurs in the craft sector to adopt ecopreneurship practices. First, the self-enhancement value, specifically related to economic values such as improving profit and reducing the risk of failure/loss, was represented by the value of power. This “power value” is closely associated with masculinity. However, this study found this value to be important both in female and male entrepreneurs. In Islam, a Muslim is concerned with the seven aspects of human security; one of them is economic security. This also appeared in female entrepreneurs, as most of the interviewees were Muslims. In the absence of a man’s role in the family (e.g., ensuring economic security), a woman should be able to take over this role to maintain her family’s existence. Therefore, we understood that the self-enhancement value is mainly informed by religious identity rather than by gender and/or ethnic identity.

Second, regarding conservation values, among the interviewed craft entrepreneurs, security and tradition (culture-related issues, i.e., preserving the national cultural identity and complying with religious values) seemed to dominate this motivational value. Conservation includes the security value (such as ensuring the livelihood of future generations), which appeared mostly in female entrepreneurs, and this value was found to be informed by their femininity as well as by their Muslim and Javanese identities. Moreover, caring for tradition and the people involved in the culture is also often associated with feminine qualities. However, these values appeared not only in female entrepreneurs but also in male entrepreneurs, which illustrates how gender is a social construct and feminine values and behavior can also be embraced by men ecopreneurs, and masculine values and behavior can also be part of women entrepreneurs’ practices. It was observed that conservation values were primarily informed by ethnic-religious identity rather than by gender identity.

Third, we found that self-transcendence values, including social and ecological values, motivate most of the interviewed entrepreneurs in the craft sector to adopt ecopreneurship practices. Self-transcendence values are represented by benevolence and universalism values, which focus on caring for people and the environment. Both values are often associated with femininity. In contrast, the social values (i.e., community building and maintaining kinship relationships) were found in female and male entrepreneurs and regardless their ethnicity, we recognized that their religious identity informed this motivational value. Moreover, the ecological values (i.e., protecting the environment and reducing pollution) which appeared in female and male entrepreneurs were primarily informed by the entrepreneur’s ethnic-religious identity.

To conclude, this study highlighted that, and how, for the interviewed craft entrepreneurs, the intersections of various important identity categories shape their motivations to adopt ecopreneurship practices in business. This study suggested that feminine qualities are not necessarily associated with female entrepreneurs as argued by prior researchers (Hechavarria et al., 2017; Lyons et al., 2005), but that these qualities sometimes also appear in male entrepreneurs. The other identities, such as their ethnic-religious identity, could also play a role in influencing the values adopted by the entrepreneurs. A woman might adopt more masculine values than a man, and vice versa, which is reflected in the individual motivational values. Moreover, as most interviewees were Muslims, the religious values that seemed to inform the entrepreneurs to care about people and the environment were Islamic values, because Muslims are obliged to ensure 'human security' (Hasan, 2015). Similarly, since most interviewees were Javanese, the value of 'living in harmony with people and the environment' (Cooper, 2000; Notodirdjo, 2011) seemed to be a major driver for these entrepreneurs in the craft sector to adopt ecopreneurship practices. Indonesia comprises many ethnicities and other ethnicities might have the same values. However, because the Javanese dominate the country, the Javanese values have become internalized into the national values.

5.2.3. Chapter 4

In Chapter 4, the third study was presented. This study used data from two online focus group discussions (FGDs) with (sustainable) entrepreneurs in the batik SMEs in Indonesia. Due to the Covid-19 pandemic restrictions and the tight schedule of the participants, online FGDs were the most efficient method to obtain the data. The data were analyzed using content analysis following Nyumba et al. (2017). Three institutional barriers of ecopreneurship were found: knowledge, cultural, and regulatory barriers. According to the FGD participants, educating the customers about the value of their eco-friendly products was the most challenging problem. As we analyzed their excerpts, we recognized that this opinion might be caused by incorrect market segmentation or target market identification. Ecopreneurs should target niche markets that understand and appreciate their eco-friendly values, because the production process is different from that of regular products. Moreover, socio-cultural barriers such as old crafters' mindset, a lack of harmony between idealism and business, and risk-averse traits amongst the crafters seem to entail critical issues for the sustainable entrepreneurs in the batik industry. Building trust and understanding among batik crafters could be a real challenge as *they* have to align their personal goals with those of the organization to become more eco-friendly and to gain socio-economic benefits in the long term. According to the FGD participants, this is especially true if the crafters have been doing (batik-making), living, and working

in the industry for almost their whole life using traditional unsustainable methods. This challenge may also question the entrepreneur's commitment and consistency in adopting a more sustainable practices in the production process. Furthermore, regulatory barriers found in this study include a lack of government support in promoting local raw materials, ecological public procurement, and protecting intellectual property rights (IPR) as well as the rigidity of layers of bureaucracy. Based on the participants' excerpts, we understood that the system is not yet fully supporting the SMEs' goals towards sustainability. This phenomenon seemed to be caused by the traditional approaches (i.e., lacking innovation) and an organizational culture adopted in governmental institutions that is incompatible with the current global orientation towards sustainable development.

In terms of institutional facilitators, this study identified ecological, technological, socio-cultural, and political/governmental support as the main institutional factors that influence entrepreneurs to become more sustainable. The ecological factors consisted of the availability and accessibility of local resources. The participants testified that they are grateful to be granted with diverse natural resources in Indonesia. It helps them to become more innovative in producing their eco-friendly products. Technological factors such as using machinery to improve production efficiency and digital archiving have enabled entrepreneurs to save time, energy, and money. Digital archiving became a crucial innovation because Indonesia is one of the most prone countries to natural disasters, i.e., earthquakes, floods, volcanic eruptions, etc. Furthermore, socio-culturally, community support, interests among youngsters, and the loyalty of the crafters were the main factors that drive batik entrepreneurs to become more sustainable. Social support is important for entrepreneurs, because naturally, Indonesia is a collectivist society. Therefore, they often seem to seek social recognition and legitimation. If the social and cultural norms support the entrepreneur's sustainable behavior, they will most likely consistently adopt (ecologically) sustainable practices. Last, some participants felt that moral support from political parties could boost their confidence in adopting sustainable practices. We recognize that positive moral support could encourage a positive attitude towards sustainability and influence society's perspective on sustainability.

To conclude, to reduce the barriers faced by sustainable batik entrepreneurs and encourage more facilitators to support their sustainable behavior, this study proposed recommendations for policymakers in the batik industry (e.g., BBKB). Besides, we acknowledge that the category of batik crafters is not homogenous. They come from different educational backgrounds and belong to different generations. Consequently, every subcategory needs to be facilitated and directed differently.

Therefore, the recommendations took into account the entrepreneurs' orientation towards sustainability, i.e., 'committed' vs 'followers' entrepreneurs. 'Committed' sustainable entrepreneurs are entrepreneurs with stronger sustainability mindsets, while 'follower' entrepreneurs are entrepreneurs who only follow the sustainability trend. The policy recommendations emphasized on three domains of improvement: socio-cultural, regulatory, and technological.

As far as I am concerned, BBKB has not fully encouraged batik entrepreneurs to implement the Green Batik Industry Standards set by the Indonesian Ministry of Industry in 2019. The standards guide batik entrepreneurs to run their business in a more responsible manner (efficient and effective) and take a serious concern over their environmental impact. Besides, the standard is relatively unknown among most batik entrepreneurs; they may not be aware that the standard even exists.

This means that the findings in Chapter 3 can provide a basic knowledge for BBKB to start inviting batik entrepreneurs to become more eco-friendly and comply the Green Batik Industry Standards by considering their socio-cultural identities. An interpersonal and customized approach to the entrepreneurs based on what they value seems worth the consideration. From the findings, it is understood that basically, the batik entrepreneurs possess the motivations to be closer with nature and caring for human-being as they adopted benevolence and universalism values.

However, findings in Chapter 4 further emphasis that socio-cultural aspects (in this case, from the customer and community stand point) and regulations are the institutional barriers that hinders the batik entrepreneurs to become more sustainable. From these findings, we can conclude that for the Indonesian batik entrepreneurs, doing business is not merely doing what the entrepreneur desires, especially when they run a business in a culture-based industry, like the batik industry. Being able to provide what the customers' demanded is somehow more important than educating the customers, in order to survive and maintain the existence of the industry. Changing the customers' habit may take more than five years to convince while the industry has suffered from torpidity caused by the pandemic. This is a big dilemma for the entrepreneurs. In addition, lack of regulations to support the implementation of the Green Batik Industry Standards have also become a serious issue for the batik entrepreneurs. It shows that the government is not ready yet to make a big change in the industry towards sustainability. Thus, an integrated research agenda is much needed to accelerate the movement towards sustainable development.

5.3. Theoretical and practical contributions

This section presents the contributions of this dissertation to the scientific literature, as well as recommendations for practitioners and policymakers in the batik industry. The contributions and recommendations are formulated based on the three studies discussed above.

5.3.1. Theoretical contributions

The first (conceptual) study contributed to the literature, first, by integrating the knowledge concerning gendered drivers of ecopreneurship practices in the three domains of literature. Second, we used a transdisciplinary approach to explore relevant concepts, issues or problems that integrate the perspectives of multiple disciplines to create new conceptual knowledge. In this case, the approach was used to summarize the knowledge in the ecological and female entrepreneurship literature, and propose a gender-based conceptual model which entails drivers of ecopreneurship practices from the perspective of women and men. Furthermore, it helped create a new research agenda. Most importantly, the study assisted future researchers understand how ecopreneurship studies can be integrated with gender studies. By including gender socialization as the moderating variable for motivations of ecopreneurship practices, it will add to a better prediction and stimulation of eco-friendly behavior and to acknowledge the source of the entrepreneur's motivations. Entrepreneurial practices should be equal for both genders. This means that women and men should have equal opportunities to express their voice and grow in the business with their values and background identities.

The second study advanced the discussion about motivational values in the ecological entrepreneurship literature and gender in entrepreneurship studies by providing some empirical evidence that and how multiple identities co-work in influencing the entrepreneur's responses to ecological challenges in business. For instance, we demonstrated that an Indonesian woman might possess not only a gender identity but also an ethnic and religious identity which construct her entrepreneurial values and informs her entrepreneurship decisions. Moreover, we showed that the Indonesian context concerns a collectivist society, and comprises a highly patriarchal system which still dominates entrepreneurship practices, although this also depends on the industry. This study further emphasized that in the context of the craft sector in Indonesia, conservation values (especially the values related to tradition/culture) have become a crucial motivational value for the entrepreneurs to adopt ecopreneurship practices. This means that cultural values play a significant role in the industry and for the Indonesians. Consequently, the conservation value found in this study enriched the literature about motivations of pro-environmental

behavior, especially in a collectivist society like Indonesia and in the craft sector, where cultural identity is an important aspect in the business. Last, the study contributed to the family business literature by providing an insight into how the family (the smallest unit of society) and cultural values could shape an entrepreneur's motivations to become more eco-friendly in business. The role of the family has become an important element in the craft sector as the nature of the business is usually an inherited family business.

Our third study enriched the sustainable entrepreneurship literature in two ways: first, by adding more knowledge about institutional barriers and facilitators of sustainability based on the experiences of batik entrepreneurs in Indonesia. This study complemented the findings from the previous study about individual values that motivate the adoption of ecopreneurship practices in the batik industry by exploring the institutional factors that support and discourage SMEs from becoming more sustainable. Second, the study contributed to the sustainable entrepreneurship literature by recognizing different categories of batik entrepreneurs in relation to sustainable behavior in business. The study extended the categorization of sustainable entrepreneurs according to their orientations about sustainability, namely 'committed' and 'follower' entrepreneurs. This categorization might help researchers to formulate appropriate policy recommendations for the policymakers in the industry. The categorization also suggests that different programs should be arranged to provide better assistance for SMEs to achieve sustainability in their business. In addition, this study also contributed to the women entrepreneurship literature by providing insights on how women entrepreneurs in a middle-income country like Indonesia perceive institutional barriers and facilitators in becoming more sustainable in their business. As women dominate the batik industry, the recommendations are further specified to provide an inclusive sustainability policy in the batik industry to empower these women entrepreneurs to acquire a better socio-economic status and become a role model for women's emancipation in a collectivist society.

5.3.2. Practical contributions

For policymakers, as the conceptual study proposed that gender socialization might influence the motivations to adopt ecopreneurship practices, we suggest that policymakers create tailor-made programs and regulations for women and men ecopreneurs. These tailor-made programs and regulations could help different social categories of entrepreneurs in the process of becoming more (ecologically) sustainable in their business. It could also help them grow sustainably based on their capabilities and willingness.

In the second study, similarly, we suggested that the policymakers in the craft sector create more inclusive policies for sustainability. This is because we recognize that every individual is different and their intersecting identities could inform different values that influence their motivations to adopt certain behavior. The policy should encourage more diversity in entrepreneurship and provide tailored assistance for entrepreneurs with different cultural backgrounds. In addition, as cultural identity becomes an important element in the craft sector, the policymakers in this sector are recommended to encourage the entrepreneurs to embed local cultural identity in their products/services and promote local production and consumption. This recommendation allows the policymakers to empower local people, reduce carbon footprint, improve the local economy, and preserve local culture.

In the third study, we recommend (women-specific) policies and tailor-made regulations to support sustainability in the craft sector and reduce institutional barriers, specifically in the batik industry in Indonesia. This basic insight can be further developed and concretized by the policymakers in accordance with the conditions of the batik industry in other countries such as Malaysia. We also suggested to policymakers in the Indonesian batik industry that the crafters' identities, such as age and education might influence their tendencies to shift towards a more sustainable behavior in business. Thus, it is important to recognize their different backgrounds and orientations rather than discourage their positive intentions by creating more barriers.

To conclude, this dissertation has contributed to four domains of literature: ecopreneurship, sustainable entrepreneurship, women entrepreneurship, and intersectionality studies. By integrating discussions in multiple domains of the literature we have generated a comprehensive and better understanding of ecopreneurship in the batik industry in Indonesia and created an agenda for future research. This dissertation also provides recommendations for the entrepreneurs and policymakers in the batik industry, such as the Center of Craft and Batik (BBKB). The recommendations suggest that the role of intersections of the entrepreneur's identity (e.g., gender, ethnicity, age, religion, and education) should be taken into account and inclusiveness in sustainability policy could improve the participation and representation of women entrepreneurs in sustainable development.

5.4. Limitations and agenda for future research

There is no such thing as flawless research. Every research learns from the previous research. And future studies learn from the limitations from earlier ones. Therefore, recommendations to improve future research will be provide next.

5.4.1. Limitations of this dissertation

In the first study, the drivers of ecopreneurship practices and considered gender socialization were explored as the moderating variable. However, the entrepreneur's identity can be multiple and intersect with one another. This means that gender socialization might not be the only identity that influences the drivers of ecopreneurship and that other identities need to be taken into account as well. Moreover, the first study proposed a conceptual model that needs to be tested in future research to prove that the conceptual model is appropriate for measuring drivers of ecopreneurship practices. Besides, entrepreneurs might have different orientations in adopting ecopreneurship practices. This should also be considered in future research.

In the second study, the sample size was limited and the study only focused on one sector, the craft sector in Indonesia. This may have limited the generalizability of the findings, within this sector and across sectors when it comes to sustainability and ecopreneurship, as well as other emerging countries with similar contexts.

Last, in the third study, again, the sample was limited, both in size and differences in background. The FGDs did not specifically group the participants based on their geographic locations, age group, or educational background within one FGD due to the SMEs' tight schedules. However, it is important to have sufficient variance in the FGDs to explore the participants' experiences in perceiving the institutional barriers and facilitators of sustainable entrepreneurship.

5.4.2. Agenda for future research

Based on the first study, we recommend that future research should explore whether other identity dimensions of entrepreneurs, such as religion, ethnicity, age, and education, influence the different roles of drivers of ecopreneurship practices. Future research should take into account the different types of ecopreneurs based on their orientation towards ecological sustainability. Collecting data in various sectors and comparing the findings among emerging countries may also improve theoretical insights in the ecopreneurship literature.

Secondly, we acknowledge that Schwartz's value theory seems to be strongly associated with a Western, individualistic culture, whereas Southeast Asian countries are characterized by a collectivist culture. Therefore, it is necessary for future research to consider the foundations of community-based values in order to acknowledge the Asian collectivist culture. Moreover, due to the diverse identities of ecopreneurs, it is suggested that future studies include the intersections of social identities such as

age, education, race, socioeconomic class, and perhaps immigration status, in order to provide a more nuanced perspective in studying the ecopreneurship phenomenon and complement knowledge on motivational values. Since the batik industry is a female-dominated sector, it would be interesting to investigate motivational values in a male-dominated sector as well, which are more masculine-oriented than in the craft sector.

Finally, we would like to recommend future scholars to conduct action research to strengthen entrepreneurs' motivation and accelerate change towards a more sustainable batik industry, because the cultural and structural system has considerably challenged gender equality in the industry. Action research may include adaptive planning, implementation, and evaluations which are assessed regularly to ensure whether the current action e.g., raising sustainability awareness, is improving the entrepreneurs' motivations to adopt sustainable entrepreneurship practices in the batik industry.

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Appendix



Interview protocol

Chapter 3

Examples of interview questions

Disclaimer: the questions are translated from Indonesian to English and used simplified language to avoid misunderstanding (e.g., the term 'ecopreneurship practices' becomes 'eco-friendly behavior in business')

Motivations

1. Can you please tell me how you decided to become an ecopreneur?
2. How do your personal values influence your motivation to adopt eco-friendly behavior in business?
3. How do ecological values influence your motivation to adopt eco-friendly behavior in business?
4. How do social values influence your motivation to adopt eco-friendly behavior in business?
5. How do economic values influence your motivation to adopt eco-friendly behavior in business?
6. How do cultural values influence your motivation to adopt eco-friendly behavior in business?

Gender

1. Who do you want to be recognized as, a female or a male?
2. What kind of feminine and/or masculine values do you adopt and where did you learn them?
3. How do you think femininity and masculinity influence your eco-friendly behavior in business?

Religion

1. What is your religious belief?
2. What kind of religious values do you adopt and where did you learn them?
3. How do you think the religious values that you adopt influence your eco-friendly behavior in business?

Ethnicity

1. What is your ethnicity?
2. What kind of ethnic values do you adopt and where did you learn them?
3. How do you think the ethnic values that you adopt influence your eco-friendly behavior in business?

Intersections of identity and motivations

1. Can you please tell me how the intersection of your identities, for example, as a Muslim Javanese female entrepreneur, could influence your motivations to adopt eco-friendly behavior in business?
2. Please elaborate whether the intersection is influencing you positively or negatively towards sustainability.



Focus group discussions protocol

Chapter 4

Introduction

Good morning, Sir/Madam. My name is Arien Arianti Gunawan, a PhD student from Radboud University, Nijmegen, NL and Hasselt University, Diepenbeek, BE. I am the researcher for this study. I appreciate your willingness to participate in this FGD. The objectives of this FGD are to understand what people think and feel about sustainability, barriers to sustainability, and facilitators of sustainability. Before we start, please fill in the attendance list on the link provided in the chat box (demographic information).

Now, I would like to read out the house rules for today's discussion:

- We hope that you could participate in this discussion actively.
- You are also welcome to add more information, or express your agreement/disagreement with the opinions of other participants.
- Please use the raise hand feature if you have something to say.
- By participating in this FGD, you agreed to have this meeting recorded and the data will be used in this research.

Before we start with the questions, please introduce yourself and your business.

Demographic information

- Name:
- Age:
- Enterprise Information: Location, age, employees, products, sustainable initiatives

FGD Questions (Krueger & Casey, 2015)

1. Tell me about your experiences with shifting the SME to become more sustainable?
2. When I mention sustainability, what comes to your mind?
3. Barriers:
 - What barriers that you faced when you decided to become more sustainable?
 - Why do you think these barriers exist?
 - How bad are these barriers affecting your business in becoming more sustainable?
 - Could you please elaborate on the following barriers related to: knowledge, financial, market, cultural norms, and regulations and policies? (each of

these barriers will be shown on the screen so that the participants can be reminded about the current topic being discussed)

- Any other barriers that might hinder you from becoming more sustainable?
- Among all those barriers that you have mentioned, please give me examples of the barriers that affected your business the most and why.
- How do you think these barriers affected your intentions to become more sustainable?

4. Facilitators:

- What factors are influencing your decision to become more sustainable?
- Why do you think these factors matters?
- How supportive do you think these factors are in turning your business to be more sustainable?
- Could you please elaborate on the following facilitators related to: individual drivers (entrepreneurs values, desirability and feasibility), socio-cultural, ecological, political, and technological? (Each of these facilitators will be shown on the screen so that the participants can be reminded about the current topic being discussed)
- Any other facilitators that you could add based on your situation to help you becoming more sustainable in business?
- Among all those facilitators that you have mentioned, please give me examples of the facilitators that affected your business the most and why.
- How do you think these facilitators affected your intentions to become more sustainable?

5. What would it take for you to become more sustainable or to continue being sustainable?

6. To finish off, what kind of actions from the government, local and national, would help you in doing so?

Thank you for your wonderful ideas and for sharing your opinions about sustainability, barriers, and facilitators for sustainability. This session is done and I hope to see you again next time. I wish you success for your business and please don't hesitate to ask if you have questions regarding this study. You can always contact me via email at arien.gunawan@ru.nl.

