

# Ecoprint Techniques as An Environmentally Friendly Fashion Product

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## Abstract

*The textile industry is one of the contributors to the highest amount of waste in the world. One of the wastes produced by the textile industry is liquid waste which comes from the remains of synthetic dyes which contain several dangerous chemicals. An alternative that can be done to reduce liquid waste from synthetic dyes is to switch to using natural dyes that come from plants. One technique that can be used to color textiles is the ecoprint technique. The ecoprint technique is a process for transferring color and shape to fabric through direct contact. The ecoprint technique uses materials from plant parts that contain color pigments such as leaves, flowers, bark, etc. Products produced from ecoprints can be a business opportunity because ecoprints have artistic value and high selling value. The research method used is literature study by taking reference sources in the form of international journals and national journals. The purpose of writing this article is to describe ecoprint as a business opportunity that can be generated by fashion.*

**Keywords:** *Textile Waste, Synthetic Dyes, Natural Dyes, Ecoprint, Business Opportunities*

## 1. INTRODUCTION

The textile industry is one of the contributors to the highest amount of waste or rubbish in the world. One of the wastes produced by the textile industry is liquid waste in the form of residual dyes/synthetic dye liquid from the fabric dyeing process which contains several dangerous chemical substances. In fact, the initial textile coloring process uses natural dyes. However, as time goes by and technology continues to develop, synthetic dyes for textiles have been discovered. The advantages of synthetic dyes are the variety of color types, guaranteed availability, easy to obtain, more practical to use, economical price, stronger coloring power and the resulting colors are bright, stable and do not fade easily. However, synthetic dyes produce hazardous waste

which can cause environmental pollution such as contaminating the surrounding soil, sediment and surface water (Yasen & Scholz, 2018).

Some dyes can be degraded into compounds that are carcinogenic and toxic (Kant, 2012). The weakness of synthetic dyes has made interest in using natural dyes begin to increase. This is in line with increasing public awareness of the dangers of synthetic waste by choosing to use natural dyes to protect the environment. Natural dyes are alternative dyes that are non-toxic, renewable and environmentally friendly. Despite the fact that synthetic dyes have replaced natural dyes, natural dyes are considered popular and are widely used in the textile industry throughout the world (Nurmasitah, Solikhah, Widowati, & Milannisa, 2022). In Indonesia, the use of natural dyes is also considered a cultural treasure inherited from our ancestors and its existence is still maintained, especially in the process of batik making and fashion design. In fact, the world of trade provides incentives for textile products that use natural dyes to enter certain markets at high selling prices. There are several methods that can be used to dye textile materials in a natural way, one of which is using the ecoprint dyeing technique. The ecoprint technique is a process for transferring color and shape to fabric through direct contact (Flint, 2008). The ecoprint technique uses materials from plant parts that contain color pigments such as leaves, flowers, bark, etc. There are several types of methods that can be used in Eco printing, namely: pounding technique (beating), steaming technique (steaming), boiling (Rekaby, 2009).

The motifs and colors of the fabric produced using the ecoprint technique have their own characteristics, because the motifs produced are always different and unpredictable even though they use the same manufacturing technique and type of plant. The type of fabric, mordanting process and fixation also influence the final result. This is what makes the ecoprint technique have high artistic value (Naini & Hasmah, 2021). In Indonesia, in recent years the ecoprint technique has been redeveloped by batik craftsmen. Initially, the technique of making batik used a patterned coloring technique covered with wax (wax) on a piece of cloth. However, currently the use of batik is no longer like in ancient times which had various rules. The use of batik cloth is freer to create in any form, it can be used every day or for traveling (Flint, 2008).

Ecoprint is a promising alternative business opportunity in the fashion sector. Basically, the fashion business is a business that can be done by anyone. Especially in this digital era which makes it easier for someone to do everything, one of which is promoting a fashion business on social media. Social media also makes it easier for fashion entrepreneurs to see trends that are popular with consumers. The fashion business is also a business that demands creativity and innovation. Ecoprint business can be a fashion business option that is creative, innovative, exclusive and different from the others. By utilizing natural resources in the surrounding environment, ecoprint products are products that are worth selling, have a high selling price and most importantly are environmentally friendly.

## **2. RESEARCH METHOD**

The research method used is literature review by taking reference sources in the form of books, articles from international journals and national journals, etc.

## **3. RESULTS AND DISCUSSION**

It is felt that ecoprint engineering businesses can develop, especially in rural areas because they have natural potential, namely lots of lush trees, fertile plants and various kinds of leaves that can be used to make ecoprint products (Lestari, 2012). The same thing was also done during the counselling on ecoprint techniques carried out by ISI Yogyakarta for women from the Family Hope Program group in Bangunjiwo village, Bantul. Bangunjiwo Village, Bantul is a cultural and tourist village. This training produces various products such as masks, fans, long cloth, headscarves, scarves and clothes. The results of these products are suitable for sale. If this program continues, it could create a promising business opportunity, especially as this village is a cultural village and tourist village so it can attract tourists. Research was also conducted by Desi and Ulfa (2018) on one of the well-known brands in Indonesia, the strategy used by designer Ria Miranda, who was originally known as a Muslim fashion designer using digital print techniques, switched to using ecoprint techniques to maintain the originality of her work. This strategy is also carried out to avoid plagiarism which is very easy to occur in this digital era (Desy & Ulfa, 2018). This ecoprint concept produces

products that are personal, limited, intimate and exclusive compared to using digital prints whose results tend to be visually consistent, time efficient and can be mass produced. In addition, designers want to bring out *image* new to the design at once *branding* as an environmentally friendly Muslim fashion designer. The materials, processes and products produced have excellence and durability in terms of quality, aesthetics and ethics. Ria Miranda chose eco fashion as a concept and ecoprint as a technique or process for creating work so that sustainability can be achieved.

Apart from that, the village also carries out a village potential development program in the form of a variety of plants which are used to improve the skills of Aisyiyah mothers and increase family income. In this training, Aisyiyah's mothers were taught how to make batik using ecoprint techniques starting from the mordant process, production process to the fixation process. The ecoprint batik products that were made immediately sold out, indicating that the ecoprint batik products made by Aisyiyah's mothers were suitable for sale. As an effort to support government programs through creative economy programs, community empowerment is also carried out in Wukirsari village, Sleman through ecoprint business training. This ecoprint business training is a business that utilizes the potential of leaf media which is expected to foster interest in entrepreneurship and improve the village economy. The media used are also unlimited, starting from the choice of fabric and natural dyes from leaves and flowers. Compared to plain/patterned fabric with *digital printing*, The results obtained from ecoprint are much more exclusive and seem beautiful and classy. The capital spent is also not too much, so it is very suitable for a fashion business in Wukirsari village, Sleman (Mardiana, 2020).

The utilization of natural potential that has not been carried out by village residents also encourages the holding of ecoprint training by the Community Partnership Program. This training was held in Panggungharjo village, Bantul. Another problem is also encountered in this village, namely the lack of skills to manage the natural potential of mothers with minimal income. The media used for ecoprints uses various kinds of plants, such as teak leaves, strawberries, guava, eucalyptus and many more. The program carried out is not only ecoprint training, but women from

Panggunharjo village are also taught how to make video tutorials on making ecoprints which will be uploaded on social media, and online marketing training for the ecoprint products produced. This is an effort to realize online learning about ecoprint making that can be accessed by the wider community and as an effective marketing strategy in this digital era. From the training program that has been implemented, many of the mothers who took part in the training are interested in turning ecoprint products into a business that can increase their income. The ecoprint products produced are satisfactory and suitable for sale (Naini & Hasmah, 2021).

Other research was also conducted by Endah and Dyah (2019) in Dukuh IV Cerme, Kulonprogo. A problem was found in Dukuh IV Cerme, namely that all community empowerment programs there had not been implemented well. So that people's income does not only depend on the agricultural sector, certain training is needed that can increase income, especially for the women of Dukuh IV Cerme. Ecoprint training was chosen which utilizes plants in Dukuh IV Cerme. This training has 2 training programs, namely training on making ecoprint products and making video tutorials on making ecoprints using natural materials in Dukuh IV Cerme. From the training on making ecoprint products, as many as 43.75% of all training participants were interested in practicing and sell the ecoprint products they make. This figure shows that quite a number of training participants are motivated to increase their family income through ecoprint businesses. Meanwhile, the training in making video tutorials for making ecoprints succeeded in realizing online learning that training participants could use by watching the video tutorials if they wanted to practice it again. The video tutorial is also uploaded on social media which can be used by the wider community.

It turns out that the ecoprint technique can not only be done using plant media, but the ecoprint technique can be done using iron waste material. This research was conducted by Pressinawangi and Dian (2014). Rusty iron waste is used as a color producer which also becomes a mordant in the process of dyeing natural colors on fabric. This iron waste can also produce a deep color. If seen from an economic perspective, ecoprint processing using iron waste is affordable and easy to obtain. Processing time is also short because the ecstasy and coloring process is fast and easy.

The results of this research are fabric sheets and fashion products with unique, clear, elegant and minimalist patterns (Presinawangi, 2014). From several studies, it can be seen that the ecoprint technique is an alternative that can be used as an environmentally friendly fashion business opportunity. Products produced using ecoprint techniques also have artistic value and high selling value. In fact, in several cities there are already groups and associations that are developing various Ecoprint methods

#### **4. CONCLUSION**

Ecoprint is a technique of coloring and giving motifs to fabric using natural materials such as flowers, leaves, stems, roots or plant parts that have colored pigments. Not only plants, it turns out that ecoprint can also utilize rusty iron waste, as in research conducted by Pressinawangi and Dian (2014). This means that ecoprint techniques can be created and innovated using any materials found in nature that have colored pigments. Judging from several studies that have been carried out, products produced using ecoprint techniques have high selling value, are environmentally friendly, unique and exclusive. Besides that, nowadays more and more people care about the environment, so environmentally friendly products are increasingly popular. This makes ecoprint products a promising business alternative in the fashion sector. Ecoprint is also an effort to make this happen ecofashion which reduces dangerous liquid waste resulting from synthetic dyes.

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