



BATIK FRACTAL

Introduction



Batik Fractal

Location: Indonesia

Industry: Fashion

Founded in 2007

Image Credit to Batik Fractal

Batik Fractal is a fashion and accessories brand under a social enterprise, Pikel Indonesia. It was founded by Nancy Margried (CEO), Muhamed Lukman (Chief Design Officer) and Yun Hariadi in 2007, who realised that batik patterns have fractal characteristics that could be recreated with formulas. By using computer software to constantly generate new designs for artisans, Batik Fractal aims to reduce competition between local artisans. Batik Fractal has 3 lines of products – couture (fashion clothing), community and ready-to-wear (accessories).

Social Problem

Despite the popularity of batik, a significant portion of the profit goes to the middleman and the store-owners. This means that many artisans continue to live in poverty, though their products are highly valued. The average income for a batik worker is as low as SGD\$1-SGD\$3 per day, below the current World Bank poverty line of USD1.90. However, on the market, batik can be sold as high as \$20-\$500 per pcs, depending on the quality. In addition, many artisans have no access to technology during the batik-making process. The majority of batik artisans are using the traditional technique to produce batik, which caused the same batik patterns to circulate

over years, and between artisans. This leads to similar batik products in the market and triggers unhealthy price war which makes artisans victims.

Social Intervention and Impact Created

Batik Fractal cooperates with training institutions at its batik centres, and creates mentoring programme in various communities for people who want to learn to make Batik and to learn designing patterns using jBatik software. These communities are supported by the establishment of the Batik Fractal Cooperative.

Batik Fractal aims to:

- Achieve over 1000 users of jBatik software with concentration mainly in small and medium traditional batik and craft artisans.
- Open Batik Fractal retail counters or stores in 4 cities/locations in Indonesia: Jakarta, Surabaya, Bali and Medan which will increase the number of traditional artisans as suppliers.
- Establish branch of Batik Fractal Cooperative in 2-3 more slum areas in Bandung which will add minimum 60 members under Batik Fractal Cooperative, contributing to solve some of Bandung city problems, which are poverty, lack of skill and unemployment.

As recognition for its social impact, Pikel Indonesia has received numerous awards, including Seal of Excellence from UNESCO (2008), ICT Asia Pacific Award (2008), International Young Creative Entrepreneur Award from the British Council (2010), and Intel Brand Ambassador (2011).

Business Model

Pikel Indonesia helps artisans to increase their incomes by two ways. First, it provides a design technology, the jBatik Software, at affordable prices or free to the artisans. jBatik Software is a tool to enable the artisans to create unlimited pattern designs in short time. In this way, artisans can create their own designs, produce new and different designs from their fellow artisans, thus benefit their business and avoid going into a price war.

Pikel Indonesia also markets the products from their partnering artisans under the collective brand of Batik Fractal. The in-house designers of Batik Fractal provide some of the pattern



Batik Fractal feature in GoGirl Magazine Indonesia

Image credit to GoGirl! Magazine

designs, and Batik Fractal outsources the production to 10 batik workshops and individuals in Jogjakarta, Solo, Pekalongan and Cirebon, and pay the artisans according to minimum wage standard which is SGD4-SGD5 per day. Because providing better and more stable income for the artisans increases the costs and sale price of the products, Pikel Indonesia strives to communicate the high value of such products through good designs, market positioning, and marketing effort to potential customers.

Local companies and governments buy jBatik to help batik producers create their own design, and Pikel provides training on how to use the software. Batik Fractal targets middle to upper class young professionals for its batik products.

Current Marketing Efforts

Online presence and social media

- **E-store:** has a dedicated website for the jBatik software, in Bahasa, and the purchase of the software can be done online through download or CD delivery. Has another website for its fashion products, and payment can be done online, and products can be delivered overseas. Sales websites are in English. Product Catalogue and information are published online in Bahasa.
- **Facebook** (Batik Fractal): 8519 likes, around 10 new posts per week
- **Instagram** (batikfractal): 1478 followers
- **Twitter** (@batikfractal): 780 followers, 317 likes, multiple tweets per day, mainly in Bahasa
- **Youtube** (Batik Fractal): 40+ uploaded videos, largely in English or with English subtitles. Nancy Margried, the founder, has also been a speaker at a TED talk.

Research Publication

Margried has published a paper titled “Batik Fractal Community: Creative Engagement through Technology” (2015) online (see link below). Lukman and Hariadi has also co-authored another paper titled “Batik Fractal: Traditional Art to Modern Complexity” (2007).

Participation in International Conference

Batik Fractal has participated in the 5th Arte-Polis International Conference and Workshop in 2014, a biennial event organised by the Institute of Technology Bandung (ITB). Batik Fractal has also participated in the 10th Generative Art International Conference held in Milan in 2007. During this conference, Batik Fractal showcased its modelling software application to create batik designs, which was developed after a year-long research on batik.

Challenges Faced and Project Scope

With the increase of material cost and decrease of spending power from the customers due to the recent slowdown in global economic growth, the batik business is in tough condition since 2015. Batik Fractal needs help to find:

- New market channels in neighbouring countries, and
- New market information (trend, price, product knowledge) to create products that are sought after

Batik Fractal seeks to clarify market information and direct production cost accurately to increase the cost efficiency, in order to increase and communicate the high value of their artisans' products.

Useful Links and Resources

Online Store: <http://batikfractal.com/>

Company Website: <http://pikselindonesia.com/>

Video: https://www.youtube.com/watch?v=ZFNzO3QvT_E

Video (In Bahasa): <https://www.youtube.com/watch?v=soGkgMBUbgk>

Additional references

Article by DBS Foundation

<http://www.asiaforgood.com/Batik-Fractal>

Article by Information Society Innovation Fund

<http://isif.asia/projects/projects/view/857>

Article by Impact Connect, a social investment portal

http://www.impactconnect.asia/social-enterprise/piksel-indonesia/267/##full_profile

Article on Batik Fractal (pp 19-20)

http://isl.smu.edu.sg/sites/default/files/isl_smu_edu_sg/SMU-Catalyst%20Asia-Issue2-FA.pdf

The Fifth Arte-Polis International Conference and Workshop

<https://www.itb.ac.id/agenda/1371.xhtml>

Generative Art International Conference

<http://www.generativeart.com/>

Publications

Margried, N. (2015). "Batik Fractal Community: Creative Engagement through Technology".

Procedia-Social and Behavioral Sciences, 184, 214-222. <http://www.sciencedirect.com/science/article/pii/S1877042815033315>

Lukman, Hariadi, Haldani (2007). "From Traditional Art to Modern Complexity". Proceeding 10th Generative Art International Conference, Milan, Italy (2007)

<http://www.generativeart.com/on/cic/papersGA2007/32.pdf>