

CIRCULAR ECONOMY BUSINESS CASE STUDIES IN SOUTHEAST ASIA



moreloop

- Bangkok, Thailand
- Textile and garments
- [moreloop.ws](https://www.moreloop.ws)
- Analysis period: 2018-2023

Repurposing Unwanted Fabric into Textile Products

Business Spotlight

The fashion industry, particularly clothing, is currently unsustainable given its substantial carbon footprint and the amount of solid waste it generates. Moreloop repurposes unwanted fabric leftovers from producers, thus diverting unused, good quality fabrics from landfill or incineration before they have ever served any useful purpose. Fabric waste from one company is turned into useful input for another company to produce marketable products. Moreloop thus repurposes itself, producing and selling its own products, and the company facilitates other garment and textile product manufacturers to do the same through its online trading platform. Moreloop develops, produces, and sells upcycled fabric products made from surplus fabrics.

Achieving economies of scale with a large diversity of small-volume fabric stocks remains a challenge that could potentially be facilitated by onboarding international buyers and suppliers, provided trade rules are cleared for these 'by-products', which harmonisation under an ASEAN single market could facilitate.

Keywords

Surplus fabrics, Matching platforms

Innovation

Product/service design, End of life management, Resource circularity



Context and baseline

The fashion industry, particularly clothing, is currently unsustainable leaving a substantial carbon footprint, generating solid wastes, and using water and chemicals in the supply chain. The 2024 Circularity Report¹ found that only 7.2% of the over 100 billion tons of resources the world used in 2020 were recycled materials. The clothing industry ranks even further behind, with input of recycled materials representing only 3% in 2015; 73% of clothing waste ends up in landfill or being incinerated.² Globally this means that, every second, the equivalent of a rubbish truckload of clothes is being burnt or buried in landfill.

Concerned about the quantities of surplus and deadstock fabric in her parents' garment factory, Ms. Thamonwan Virodchaiyan, Vice-president of the Thai Garment Manufacturers Association, initially created a brand for upcycled clothing made from repurposed and reused surplus fabric, but this initiative did not immediately succeed. In 2018, she then partnered with Mr. Amorpol Huvanandana, whose background was in the financial sector and digital marketplace, to create moreloop. This company provides a market for selling and later buying surplus fabric for upcycling: leftover new fabric is turned into new garments and textile items to accommodate the demand of corporate customers for finished products made from leftover new fabric, by moreloop itself as well as others.

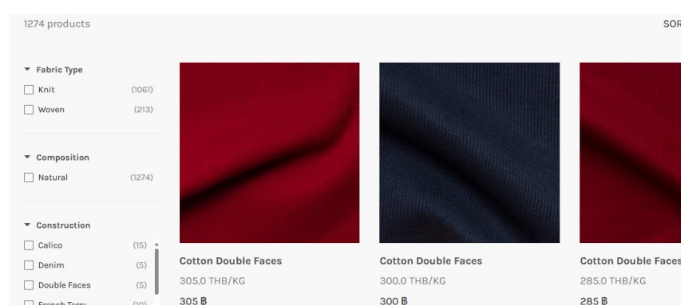
Moreloop created an online platform as a marketplace for business customers and designers, especially small and medium enterprises (SMEs), for the purpose of buying relatively smaller quantities of new fabric that had become surplus or deadstock at other textile factories. Everyone wins, including the environment, as the buyer receives quality fabric for a lower price, sellers still recover some money from the excess fabric, and good quality fabric is diverted from landfill or incineration to be used for making new textile products. More than just a trading platform, moreloop also creates and sells its own products from a portion of the recovered fabric, including company uniforms, face masks, workwear and sportswear.

Innovation

Moreloop's innovation involves (re)purposing unwanted fabric leftovers and thereby diverting new and unused quality fabrics from landfill or incineration before they have ever served any useful purpose. Fabric waste from one company is upcycled into marketable products made by another company. Moreloop (re)purposes unwanted fabric itself by producing and selling its own products, and it facilitates other garment and textile product manufacturers to do the same through the online trading platform.

Moreloop itself develops, produces, and sells upcycled products made from surplus fabric. These are new and unique products that mix and match fabric to customer demand, based on specific client needs. These products give previously unused fabric a new life while reducing environmental impact. Moreloop repurposes unused fabric into upcycled products for other firms and government agencies on a business-to-business (B2B) and business-to-government (B2G) basis. These B2B and B2G products include uniform shirts, cloth bags, foldable bags and accessories. Moreloop also retails its own brand of upcycled products using its business-to-customer (B2C) platform. These direct retail products include mask straps, clothing, sportswear and accessories, all made from surplus fabric.

Furthermore, moreloop supports the upcycling of surplus fabric by matching garment factories with surplus or deadstock fabric to designers and factories wanting to use these unused fabrics. The company provides a digital platform with a user-friendly matching interface for this purpose. Moreloop's online trading platform presents data on the deadstock fabric available at its partnered factories.³ The online platform provides comprehensive data for 1700–3000 stocks of surplus fabrics categorised by kind of fabric: natural, synthetic, mixed, knitted and woven fabrics. Along with price per unit, the online platform provides the available amount of fabric in stock plus a variety of fabric characteristics for selection, including fabric construction, physical separation, tone and colour.



1 <https://www.circularity-gap.world/2024>

2 <https://www.ellenmacarthurfoundation.org/a-new-textiles-economy>

3 Detailed information is available at <https://moreloop.ws/collections>

At the beginning of 2024, 70 Thai textile companies sold leftover and/or excess fabric via the moreloop e-platform to some 150 customers.

Circular Economy impact

Moreloop illustrates the circular use and reuse of materials and products, or resource circularity, which is a main pillar of the circular economy. The company repurposes deadstock and excess fabric into new products, through its own activities and products and through the facilitation of trade in deadstock and excess fabric allowing others to repurpose. This diverts not-yet-used fabrics from landfill or incineration, and replacing the production and use of new fabric, thereby saving energy and water, and preventing waste and greenhouse gases (GHGs) and other emissions that would otherwise result from creating new fabric.

From January 2019 to April 2024, moreloop had upcycled 74,630 kilograms of surplus fabrics, which is estimated to have avoided the release of 1,119 metric tonnes of CO_{2e} (carbon dioxide equivalent).

In 2021 moreloop received an international Low Carbon Award in waste management in the Asia category under the SEED Entrepreneurship for sustainable development initiative, supported by the United Nations Development Programme.

Business and market impact

With its online and digitalised system, moreloop achieved payback on its investment in 2020, 2 years after the company was founded. Revenue breakdown is approximately 80% from upcycled products for B2B/B2G customers, 15% from trading surplus fabric, and 5% through retailing moreloop's own brand products. Surplus fabric is in general listed on the platform for about 3 months before being sold, as this depends on seasonal fashion demand. Initially all operations were confined to surplus fabric trading. However, in 2019 moreloop diversified its business by designing and providing fabric for unique products, with production outsourced to partner firms. This initiative was driven by suggestions from relevant firms. Moreloop forecasts that its business will become more financially stable by 2027.

Stakeholders

Moreloop's model of outsourcing the production of its own B2B/B2G and branded products has established a customised upcycling capacity at four affiliated factories, each of which is already a garment maker. The outsourcing firms plus online trading clients are 70% women-led. The company

enables smaller niche-type fashion enterprises to start their business with 30%–50% less initial capacity than companies using new fabrics.⁴

In 2020, the National Innovation Agency (NIA), a public organization, provided a capital grant for database development at moreloop. Under a social enterprise financial support programme, moreloop received a soft loan of THB 1.5 million (approximately EUR 38,000) from the Government Savings Bank. In 2023, the Ministry of Higher Education, Science, Research, and Innovation granted funds of THB 1 million (approximately EUR 25,000) for marketing.

Implementation

The development of moreloop's online trading platform was informed by an in-depth understanding of and insight into customers' needs and circumstances, obtained through surveys, consultations and participation in the Thai Garment Manufacturers Association. In this way trust and customer relations were built, based on an understanding of clients' varying preferences and requirements.

Moreloop faces the challenge of achieving economies of scale because it trades a large variety of fabrics (typically 1700–3000 listed at any point in time) in relatively small quantities. Moreover, as a start-up, moreloop had to develop and consolidate its market niche, for which it actively uses social media (Instagram and others) along with public relations.

The search for suitable surplus or deadstock fabric for upcycled production is also complicated by narrow fabric specifications used by potential users, which prevent finding a match with an available fabric that is just marginally different and would be reasonably suitable for upcycling. Moreover, as a precautionary measure to establish and protect its reputation, moreloop only trades and delivers fabric and products that meet buyer specifications in full, which typically requires the provision of sample fabrics or products. This rigid quality control has resulted in being more selective in partnering with outsourcing factories and adding more suppliers (of surplus fabric) to diversify supply. Moreloop focuses on its creditability, operating with upcycling as its core business strategy, rather than as a philanthropy.

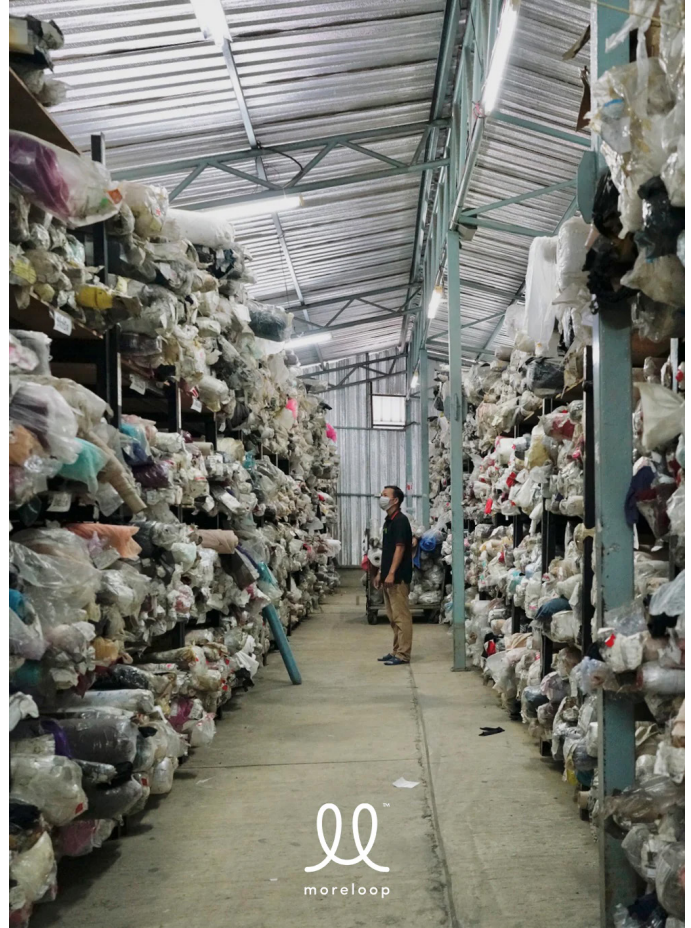
The Company believes that the domestic market of surplus fabric can expand by 5–10 times in the coming years, particularly as producers, buyers and consumers become more environmentally aware of and informed on upcycling. Moreover, the platform could potentially be internationalised, to serve the large garment sector elsewhere in Southeast Asia.

⁴ <https://www.mekongeye.com/2022/08/22/thai-startup-puts-garment-factory-offcuts-to-good-use/>

Takeaways

To upscale the upcycling business, the company emphasises that digital platform upcycling start-ups benefit when government mechanisms provide support, in particular for setting up sector- and material-specific trading platforms.

Achieving economies of scale with a great diversity of small stocks nonetheless remains a challenge, which could potentially be facilitated by onboarding international buyers and suppliers, provided that trade regulations are cleared for these 'by-products', and which harmonisation under an ASEAN single market could facilitate in the future.



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