

Esquel Group (Hong Kong)

Launching a Sustainable Mask Amidst a Public Health Crisis

January 2021



Extraordinary Endeavors in Turbulent Times: Asian Innovation, Inclusion, and Impact during COVID-19

A Joint Report by the Asia Business Council and the
Hong Kong University of Science and Technology

Other case studies in the series

Ayala Corp (Philippines)

Recommitting to a Broad Stakeholder Eco-system during the Pandemic

DatVietVAC Group Holdings (Vietnam)

Leveraging Entertainment as a Force for Good in Face of COVID-19 Challenges

Fubon Group (Taiwan)

Forming a Mobile Phone-based Information System to Prevent Community Outbreaks

Lenovo (China)

Championing Educational Technologies to Enable Virtual Learning Experiences
Worldwide

Lotte Group (South Korea)

Embracing “Open Innovation” in E-Commerce for the Post Corona Era

Temasek (Singapore)

Tapping Investment Expertise and Diverse Networks to Help Fight the Virus

Yoma Group (Myanmar)

Accelerating Financial Inclusion in a Time of Social Distancing

Letter from the Directors

Dear Reader,

As the directors of this joint project by the Asia Business Council and the Hong Kong University of Science and Technology (HKUST), we are delighted to present the results of our study on the extraordinary endeavors of Asian companies in the turbulent times of COVID-19, as companies embrace innovation, promote inclusion, and drive social and economic impact across the region.

We hope that this series of eight case studies will illustrate the silver linings of the pandemic – in these trying times companies are more than ever realizing the importance of social responsibility, reimagining and reinventing traditional forms of philanthropy, and leveraging technology as a force for good in ways that will likely last well beyond the crisis.

While the articles are written with business leaders and business students in mind, the stories we tell have relevance for a wider audience as they show how Asian corporates took the lead in engaging a broad eco-system, including governments, academic institutions, religious groups, and the public health sector, in addition to start-ups, small and medium enterprises, and even competitor companies within the private sector.

True to the times of COVID-19, the smooth collaboration between our two organizations took place without any face-to-face meetings; all the research and interviews were conducted virtually and across multiple time zones. We are especially grateful to Asia Business Council Chairman Lim Boon Heng and Vice-chairman Daniel Tsai whose companies Temasek and Fubon Group were the first two companies to take part in the study. We would also like to thank the unfailing support of Mark Clifford, Executive Director of the Asia Business Council, and Roger King, Senior Advisor and Founding Director of the Tanoto Center at HKUST, without whom we could not have completed the project.

Amidst the continued risk and uncertainty surrounding the pandemic, we hope that this report will contribute to the ongoing discussions on stakeholder capitalism and the debates on the role of companies in the local and international community, in times of crisis as well as times of relative normalcy. Above all, we hope that you will enjoy reading the articles as much as we enjoyed writing them, and that the report will be a source of positivity and inspiration for audiences around the world.



Winnie Peng

*Director of the Tanoto Center for Asian Family
Business and Entrepreneurship Studies at the
Hong Kong University of Science and Technology*



Pauline Yeung

Program Director at the Asia Business Council

Esquel Group (Hong Kong)

Launching a Sustainable Mask Amidst a Public Health Crisis

By Winnie Peng, Pauline Yeung, Colleen Howe, and Chun Hei Hung

Esquel Group

Region

Hong Kong

Year of Founding

1978

Headquarters

Hong Kong

Type of Company

Vertically Integrated Textile and Apparel Manufacturing and Technologies (including Cotton Research, Ginning, Spinning, Knitting, Weaving, Garment Making, Accessories and Packaging, Merchandising and Retail)

Number of Employees (2020)

35,000

Total Revenue in 2019

HKD 10 billion (US\$ 1.3 billion)

Major Business

Textile Manufacturing (including Apparel Making; Brands & Distribution; Cotton Research, Ginning & Spinning; Knitting & Weaving; Merchandising; Accessories & Packaging; and Specialty Yarn Spinning)

Retail Brands

PYE and DETERMINANT

COVID-19 Initiatives in a Nutshell

Development of a Sustainable Mask

The following case study is based on interviews with Marjorie Yang, Chairman of Esquel Group, on September 22, 2020 and with Edgar Tung, Head of Global Operations at Esquel Group, on August 31, 2020.

Introduction

On February 3, just as the COVID-19 pandemic was unfolding, Esquel Group Chairman Marjorie Yang received a call from a close friend. “You’re in the textile business, you should do something to help Hong Kong. You should start making masks,” he said. Yang initially replied, “We don’t know how to do that. We’re a cotton house. We make men’s shirts.” Indeed, Yang’s first reaction was that unless one was going to wrap a shirt around one’s head and turn it into a mask, she didn’t see how Esquel was going to become a mask manufacturer. Masks are made from non-woven material and are a totally different business.

But Yang got off the phone and started asking her colleagues, just out of curiosity, “Do you think we know how to make a mask?” Several people said maybe. In the following days, Esquel established a team consisting of representatives from research and development (R&D), manufacturing operations, engineering, and procurement to brainstorm ideas for producing a sustainable mask. The reusable element was particularly important because as many as 129 billion disposable face masks are thrown away every month worldwide, according to a study in *Environmental Science and Technology*.¹

Yet this was no easy task. In Yang’s words, “We had to go through so much pain trying to make the first 300,000 masks, trying to find the chemicals and other materials. We used the interlining from men’s shirts — talk about innovation — because the regular material was not available.”

This took place in the midst of a public health crisis and at the fastest possible speed. Esquel launched its mask

on Valentine's Day, around 10 days after Yang received the initial phone call. The mask was later named DET30, which comes from Esquel's brand, DETERMINANT, and the number of times each mask can be washed. The mask was attractive because of three features: sustainability, affordability, and the fact that its anti-bacterial treated fabric offered reasonable protection for the wider community while sparing medical masks for healthcare professionals.

Given the global shortage of masks, Esquel's workers worked overnight and on Sundays to make sure that the high demand could be met; at its peak, Esquel produced one million reusable masks in a single day. The drop in orders for clothing meant that workers could be moved into mask production.

Initially, the masks were for donation only. Esquel donated masks to the communities where it had operations, such as Guangzhou, Guilin, and Xinjiang. The company also donated masks to institutions such as Imperial College in the United Kingdom and Yang's alma mater, the Massachusetts Institute of Technology in the

United States. And while the priority was to meet the community's needs, Esquel was also able to turn mask production into a business by selling its masks online both domestically and internationally on platforms like Amazon, Shopify and WeChat.

Along the way, Temasek Foundation also tested the masks and realized they were good for non-medical use. After a small initial donation, which was very well-received, Temasek Foundation placed orders for millions of masks for its *Stay Prepared* initiative, which offered all Singapore residents a free pair of reusable masks.

As of December 2020, Esquel had shipped 43.5 million reusable masks to more than 27 economies worldwide, potentially saving 1.3 billion single-use masks from disposal in the environment.



DET-30 Reusable Mask

A Deeply Embedded Commitment to Sustainability in the Family

The advantage of running a privately owned family business during a crisis is that the company can afford to incur short-term losses without being afraid of losing the confidence of its shareholders. In the case of Esquel, another aspect – and advantage – of family influence is the deeply embedded commitment to sustainability across generations.

Yang recalls being at MIT in the 1970s, when there was the emergence of an environmental movement around books like *Silent Spring* and *The Limits to Growth*. The people in her social circle were very environmentally conscious and very much influenced by these works. So Yang came out of that era where that was the fashionable thing to do, and that influence stayed with her as the environment became worse and worse.

“We had to go through so much pain trying to make the first 300,000 masks, trying to find the chemicals and other materials. We used the interlining from men’s shirts—talk about innovation—because the regular material was not available.”...As of December 2020, Esquel has shipped 43.5 million reusable masks to more than 27 economies worldwide.

Yang’s father also inspired her. A textile chemist by training, he studied chemistry as an undergraduate and did his Master’s degree at Lowell Textile Institute. He used to tell Yang, “The textile industry does not have to pollute. There are ways of doing things better.”

After Yang joined Esquel, she found herself at one of the satellite factories and noticed that the fish in the nearby fish-pond had died. When she asked the factory manager about this, he said, “Boss, we are in the textile industry, and this is natural.” But when she went home and asked her father, he responded from a very practical engineering perspective. He said, “That is not so. We can treat it.” So she felt that Esquel should adopt this as the way to work in the company.

Yang’s daughter, Dee Poon, is also an environmental champion. In an interview in September, Poon spoke about “50 Simple Things Kids Can Do to Save the Earth,” a book Yang gave her as a child.² Poon recalls going into Yang’s office when she was growing up and putting little notes here and there saying “Be careful how much toilet paper you use,” or “Do you need to print that.”³ It is safe to say that the concern for the environment runs deep in this family, and that they are prepared to act on it.

Esquel’s eCulture

In fact, the Environment is a core component of the eCulture at Esquel, which also includes Ethics, Exploration, Excellence and Education. Yang credits the eCulture for Esquel’s sustainable mask story.

In terms of Ethics, Esquel wanted to help. The mask initiative stemmed from a deeply ingrained ethos of caring for people and the community. Importantly, Esquel was transparent with the limitations of its mask in comparison to a mask that was designed for medical use. The involvement of public health specialists on Esquel’s consulting panel ensured that the company delivered what it promised, but did not promise more than what it could deliver.

Exploration is another component of Esquel’s eCulture, and it is worth noting that the sustainable mask, which was ready for shipment within 10 days, was the result of years of R&D and materials science knowledge. As an example, the outer

layer of the mask is water repellent and treated with an anti-microbial chemical, meaning that this could not have been done overnight.

Esquel's culture also emphasizes the need to challenge the status quo and explore all available options through trial and error before coming up with a new product. In the words of Esquel's Director of Global Operations Edgar Tung, Esquel's reusable mask exemplifies how "innovation is the key cog to moving the three interlinking processes of discovery, experimentation and optimization."⁴



Excellence is also a core value. When making the mask, Esquel relied on automation because it wanted consistent production quality and minimal human handling to avoid contamination. But the ear loops still had to be attached manually, and Esquel encountered initial problems when Temasek Foundation asked for colored ear loops in cheerful colors such as red, yellow, and green.

While Esquel had thought it could easily dye them in house, this turned out not to be easy. The ear loops were made of polyester, and after dyeing they got tangled up like spaghetti. So one weekend the workers had to do it by hand until engineers came up with the clever solution of autowinders. Yang believes that this drive to solve problems and strive for excellence is what got them over that hump.

Education is the final component of Esquel's eCulture. Yang notes that while a lot of people think that means training people, at Esquel it also means "dare to err," or a culture where people are not afraid to make mistakes. This is complemented by efforts within Esquel to make sure that all departments build on the same experiences and that no one single individual or unit makes the same mistake twice.

In Yang's words, "When you graduate from a great university, you're probably a good student. One of the things you've been told all your life is you should hand in a paper that gets you 95 points out of 100. So you're very afraid to hand in any kind of work unless you're sure that it's near perfect, but that's a bad habit. You have to remember that you need to work as a team. If everyone had held on to their work until it was perfect, we would not have made a mask or even half a mask."

Wellness Initiatives

Yang is also particularly proud of the emphasis on health and wellness in Esquel's corporate culture, which played a critical role in the launch of the DET30 mask and allowed for its rapid adoption across the firm.

Esquel had wellness initiatives long before the pandemic started. The program is aimed at maintaining a healthy work-life balance for employees and includes tai chi classes, mindfulness workshops, and seminars on different aspects of wellness, as well as the recognition and alleviation of mental health issues by building a supportive environment.



Tai Chi at Esquel's Sustainable Development Garden in Guilin China

Over the years, the company has also worked to improve the health and safety of its frontline workers by educating them on practices such as wearing shoes while in the factory or washing their hands after using the toilet. While these habits may seem basic to most, many workers in developing countries were not brought up this way. For example, some Sri Lankan workers at Esquel were accustomed to going to work barefoot.

On bathroom hygiene, Yang exclaimed, "Toilets are critical! While everyone focused on the masks, it is also about handwashing, having clean water, and having proper sanitation, particularly in a crowded environment."

Yang vividly recalls going to a lecture where they talked about how toilets are the most important indicator of how a McDonald's store is managed. In her words, "I believe toilets are the easiest way to see if a factory is well-managed, too. Not the VIP toilets, but the regular toilets. That has been an indicator that we use."

With this kind of effort, it is not surprising that Esquel's workers feel safe. The company also gives its employees options and lets them decide whether they want to work from home or go into the office. While the company gives some basic guidelines, employees are encouraged to use their own discretion. Hence, the wellness program and the sense of trust between the company and the workforce contributed in no small part to the mask story.

Challenges in the Garment Sector

The confluence of innovation, sustainability, and wellness in producing reusable masks is particularly remarkable given that Esquel has been hard hit not only by the pandemic but also by U.S.-China tensions. Since the onset of the pandemic, the company has closed down all factories in Malaysia and Mauritius, one factory in Fenghua, China, and another factory in Sri Lanka.

As Tung remarked, "Esquel has experienced several crises since its founding, ranging from the consumer backlash after the 1989 Tiananmen Square incident, to the 1997 Asian financial crisis, to the 2002-2004 SARS outbreak. However, none of these previous crises had the same scale or impact as the current

"...One of the things you've been told all your life is you should hand in a paper that gets you 95 points out of 100. So you're very afraid to hand in any kind of work unless you're sure that it's near perfect, but that's a bad habit...If everyone had held on to their work until it was perfect, we would not have made a mask or even half a mask."

pandemic." Nevertheless, Tung noted that the crisis is also an opportunity for Esquel to speed up the process of transforming its business, which the company was unable to do previously.

For Esquel, around half of its exports went to the United States and just under a third to Europe. During the pandemic, many of Esquel's customers in the United States requested extensions of the payment cycle – from 30 days to 60 days to 120 days. Some even said that they did not have the money to pay.

Esquel helped some of its customers cope with the negative demand shock by assisting with product development, for example by developing clothes with anti-bacterial

properties. In addition, it reduced lead time and increased order flexibility so that customers could exhibit more agile responses to fluctuations in demand. For others, Esquel mitigated the impact on its business through credit insurance or decided to sever its relationship with customers before they went bankrupt.

In addition, some of Esquel's customers said that they have plans to move their supply chains away from China because of U.S.-China tensions. As Tung explained, from Esquel's point of view, if a customer has, for some time, wanted to move away from China, then perhaps the pandemic is a good time to re-evaluate the relationship. In this way, COVID-19 actually gave Esquel the opportunity to evaluate which of its customer relationships would be long-term and which would be more transactional, so that it could focus its resources on the partnerships that are most important.

Future Outlook

In terms of the future outlook, Tung noted that the overall theme among Esquel's customers is, unsurprisingly, one of uncertainty: They do not know how many orders they will require in the next season, so they often place smaller orders, leaving room for the possibility of increasing volume if demand permits. In order to mitigate the risks of uncertainty, Esquel hopes to maximize its value in the supply chain, diversify its customer base, and invest in its own brands.

First, Esquel hopes to maximize value according to the "Smiling curve," which states that the marginal value added by the first and last stages of the value chain – R&D and branding – is much higher than the value added by the intermediary stages of manufacturing. Therefore, Esquel now wants to focus on identifying opportunities to monetize its extensive library of patented technologies.

"in Chinese history, every six decades we have a year of great turbulence. But that doesn't mean that it is only crises. There are also opportunities...So early on, I started to look for opportunities rather than just defending against all the adverse events."

Secondly, Esquel has been developing a reorientation toward clients in Asia, especially China. The share of Esquel's revenues in China as a proportion of total sales grew from 17 percent in 2019 to 20–30 percent in 2020 as COVID-19 hit different parts of the world. In line with this trend, and to correct for its previous over-reliance on U.S. customers, Esquel is seeking to develop more business relationships with Chinese customers, notably sports brands like Anta Sports and Li Ning. The company is also looking to produce uniforms for large Chinese corporations. This could be a very profitable business as the number of uniforms required by one corporation could easily be in the order of millions. At the same time, Esquel is also seeking to develop deeper relationships with other Asian customers such as Muji, the leading Japanese brand.

Finally, Esquel will focus on developing its own brands, including PYE, which targets higher-end consumers with shirts selling for more than \$100, and DETERMINANT which is designed for value-seekers, with shirts selling for around \$40. Esquel is also seeking to diversify its revenue streams by expanding its lineup of wellness-related products, such as masks, eye masks, travel pillows, sleeping bags, and clothing with anti-bacterial and water-repellent properties.

Esquel has benefitted from vertical integration over the years, with control over the whole production process up to the point of selling the product to retail companies. Thus, it has been less exposed to supply chain disruptions, like shortages of raw materials, than other firms. By developing its own brands, Esquel believes it can further reduce its risk to disruptions like order cancellations or changes in its customers' policies toward working with Chinese suppliers. This would also bring the company one step closer to the end consumer, so that it can better understand their tastes and preferences and directly communicate a strong belief in sustainability.

Conclusion

When asked about how the year 2020 has been for her, a contemplative Yang says that she began some of her annual dinners of the year by noting that in the Chinese zodiac, this year is the year of the metal rat. “In Chinese history, every six decades we have a year of great turbulence. But that doesn’t mean that it is only crises. There are also opportunities. So I dug up some of my speeches from the beginning of the year, and that was quite inspirational, because, as Winston Churchill says, in every crisis there are opportunities. So early on, I started to look for opportunities rather than just defending against all the adverse events.” From the development of the idea to the donation and distribution of sustainable masks, it is fair to say that Yang is a woman of her word who has spotted – and acted upon – a meaningful opportunity in the COVID-19 crisis.

Endnotes

- 1 “From field to compost: French firm develops hemp face masks.” *Reuters*. Sept. 11, 2020. <https://uk.reuters.com/article/us-health-coronavirus-france-hemp-mask/from-field-to-compost-french-firm-develops-hemp-face-masks-idUKKBN2621Z2>
- 2 “Growing up Green.” *South China Morning Post Magazine*. Sept. 20, 2020.
- 3 Ibid.
- 4 Tung, Edgar. “5 ways one apparel manufacturer found its relevance to society during COVID-19.” June 11, 2020. <https://www.weforum.org/agenda/2020/06/5-ways-apparel-manufacturer-found-its-relevance-during-covid/>