



MARS



Esquel

An Economics of Mutuality case study



Responsible Business Forum: The Economics of Mutuality

18 - 19 May 2018

Esquel



Contributor
Kate Roll



Contributor
Aida Hadzic



Contributor
Lionel Khalil

About the Responsible Business Forum Case Studies

This series of case studies explores how mutual approaches to business can help companies and their partners tackle some of the most pressing global challenges. The businesses featured in this series share a commitment to objectives beyond purely financial performance, as well as a serious intent to implement mutual practices through new forms of ownership, governance, leadership, measurement and management.

In particular, these cases address the measurement of multiple forms of capital, ecosystem shaping approaches, leadership development, business education, and policy formulation through laws and regulation that promote mutual conduct. The authors appreciate the collaboration of participating companies in creating these cases.

These cases were first developed for the annual Responsible Business Forum, the convening event of the Mutuality in Business Project, a joint research programme between Saïd Business School, University of Oxford, and the Catalyst think tank at Mars, Incorporated. The Responsible Business Forum brings together global companies, MBA candidates, scholars and activists to share their experience in confronting key challenges in their ecosystems to generate financial, social and environmental value.

Authors' Note

The conclusions and recommendations of any Saïd Business School, University of Oxford, publication are solely those of its author(s), and do not reflect the views of the Institution, its management, or its other scholars. These cases are based on information provided to the researchers by participating companies.

Mutuality in Business

Tel: +44(0)1865 422875

Email: responsiblebusiness@sbs.ox.ac.uk

Web: [Economics of Mutuality](#)

Web: [Oxford Saïd Mutuality in Business](#)



Executive Summary

Esquel

Established in 1978, Esquel is a global textile and apparel company head-quartered in Hong Kong. It is vertically integrated, spanning from cotton farms, ginning, spinning of yarns, weaving and knitting of fabrics, to garment manufacturing, accessories and packaging. The company also has its own retail brand. Esquel promotes a 5E values, consisting of ethics, environment, excellence, exploration and education.

The company has manufacturing facilities located in China, Malaysia, Mauritius, Sri Lanka and Vietnam, and merchandising offices servicing markets worldwide. Esquel manufactures over 100 million pieces of garments annually for leading brands, including Ralph Lauren, Tommy Hilfiger, Charles Tyrwhitt, Hugo Boss and Nike. The annual sales revenue is \$1.3 billion.

Maturity Business Strategy

Esquel has been at the forefront of promoting and building a business ecosystem for sustainable cotton clothing. This includes addressing significant pain points in the textile manufacturing process and cotton supply chain.

Esquel has heavily invested in R&D. This work has targeted reducing chemical and natural resource usage, cutting waste, enhancing quality and improving income of workers. A key example is the company's investment in wastewater treatment. At the largest manufacturing site in Gaoming of Guangdong Province, China, Esquel treats over 5,000 tons of wastewater daily. Within the cotton supply chain, Esquel entered into partnerships with farmers, training them in new agricultural techniques, facilitating financing through a partnership with Standard Chartered Bank, and providing price guarantees. This resulted in the doubling of yields in organic cotton farms.

Specific EoM Contributions

Investments in reducing the environmental impact of cotton production and textile manufacturing ultimately help protect both farmers and the company. This initiative and long-term commitment to its farmers has secured Esquel's supply and made it more resilient.

Performance

These initiatives have resulted in significant improvements to performance. The company reports on key natural capital indicators. Between 2005-2017, Esquel reduced unit energy consumption (measured by unit of output) by 49%, and reduced unit water consumption by 67%.

The company also measure its wages against local minimum wages. The company typically pays 2-3 times the local minimum wage to factory workers.

Prognosis

The Esquel case provides a strong example of how investment in human and natural capital within a vertically integrated system can strengthen a company.

Major initiatives have been taken to evaluate the natural capital inputs to the company in order to understand how they can be further reduced and how this will affect costs.

Esquel and greening the textile industry

About the company

Esquel has been at the forefront of promoting sustainable cotton clothes. By using less water and fewer pesticides in its manufacturing processes, Esquel has actively addressed significant pain points within the sector. The challenges of transforming the industry are both technical and social, informing the development of new processes and farming techniques. Esquel also places a strong emphasis on social and environmental protection as part of its corporate values of 5E – ethics, environment, excellence, exploration and education.

Established in 1978, Esquel is a global textile and apparel manufacturer headquartered in Hong Kong, which uses a vertically integrated supply chain to produce cotton garments. Esquel is a family business owned by the Yang family. The current president and CEO of Esquel is Marjorie Yang (杨敏德), who took over the company from her father Yang Yuanlong, the founder of Esquel, in 1995. She also sits in the National Committee for the Chinese People's Political Consultative Conference. Under Marjorie Yang's leadership, the company has doubled its revenues.

Esquel employs over 57,000 people globally, in state-of-the-art production facilities in China, Malaysia, Mauritius, Sri Lanka and Vietnam. Esquel's annual sales revenue is \$1.5 billion. In China, Yang Yuanlong established the largest production base in Gaoming, Guangdong province in 1988. In 1996, Marjorie Yang expanded the business to Xinjiang Prefecture to produce and process the best quality cotton. In 2013, after acquiring Guilin Yin Hai Textile Corp. in 2011, Esquel started a new project that combines manufacturing, environment protection and tourism in Guilin of Guangxi Province, a famous tourist site in China. The company manufactures over 110 million cotton shirts annually for leading brands, including Ralph Lauren, Tommy Hilfiger, Nike, Charles Tyrwhitt, and Hugo Boss.

Confronting pollution in Asia

The Asian region has astounded the world with both its economic development and its horrific environmental degradation: the toxic rivers, polluted air and extreme weather have resulted from decades of breakneck growth. Health issues, ranging from villages afflicted with cancer to deaths from air pollution, are becoming politically difficult to justify to populations that are becoming richer and more assertive about their health. Now, Asia faces the challenge of remedying the massive environmental degradation that has resulted from its economic success.¹

In the recent past, Asian countries often followed a “get dirty, get rich, get clean” approach.² Now the idea that a country can only afford to clean up once it is rich looks out of date. To begin addressing the problem of environmental degradation, three conditions are needed: public engagement, regulation and private sector engagement.³

Public engagement has already begun. The mass use of social media is becoming a force for change. Chinese journalist Chai Jing’s documentary about air pollution in China, “Under the Dome,” generated over 200 million views. The public interest was so great that the authorities allowed it to be featured on Chinese websites, a testament to the depth of public concern.⁴

Second, regulatory changes in Asian countries are further reducing environmental harm. Examples include policies such as resource pricing, emissions standards and road-congestion pricing. Historically, water and electricity have been underpriced for favored industries. Mispricing of resources has led to inefficiency and environmental harm. However, this picture is changing rapidly. China has made efforts to create green champions in renewable industries. China invested \$125 billion in clean energy in 2012 and 2013 (more than the \$101 billion that the United States invested).⁵ Accordingly, China is now the world’s largest manufacturer of wind and solar equipment, and one of the largest consumers of clean energy.⁶

Finally, leading Asian businesses are going beyond regulatory requirements, showing that sustainable business practices can be profitable. Esquel is increasingly taking responsibility for ensuring sustainable growth. For example, starting in 2017, Esquel ended its collaborations with 381 suppliers that did not agree to reform, and helped 100 other suppliers reform their practices.⁷



1 Janet Pau et al., “Building Resilience Businesses and Supply Chains in Asia,” Asia Business Council, February 2018, <http://www.asiabusinesscouncil.org/docs/Supply.pdf>

2 Mark L. Clifford, “The Greening of Asia: Businesses’ Role in the World’s Biggest-Ever Environmental Clean-Up,” All China Review, 10 May 2015, <http://www.allchinareview.com/the-greening-of-asia-businesses-role-in-the-worlds-biggest-ever-environmental-clean-up/>

3 “In Need of a Green Revolution: How Business Can Help Solve Asia’s Environmental Problems,” The Economist, 15 April 2015, <https://www.economist.com/news/books-and-arts/21649445-how-business-can-help-solve-asias-environmental-problems-need-green-revolution>

4 Celia Hatton, “Under the Dome: The smog film taking China by storm,” BBC News, 2 March 2015, <https://www.bbc.co.uk/news/blogs-china-blog-31689232>

5 Mark L. Clifford, *The Greening of Asia: The Business Case for Solving Asia’s Environmental Emergency*, (New York: Columbia University Press, 2015).

6 Victor Mallet, Review of Mark L. Clifford, *The Greening of Asia: The Business Case for Solving Asia’s Environmental Emergency* in the Financial Times, 3 May 2015, <https://www.ft.com/content/caba88da-ee88-11e4-88e3-00144feab7de>

7 Sohu.com, http://www.sohu.com/a/167865592_418233

Mutual business strategies

Esquel's strategy is to vertically integrate the textile value chain, which reflects the complexity of the value chain and the high costs of textile manufacturing. The main steps along the value chain are as follows:

- **Production of the cotton:** the farmer grows cotton and harvests seed cotton. Cotton is grown on approximately 33 million hectares (2.5% of global arable land) in more than 80 countries. More than 250 million farmers are dependent on its production. Cotton is mostly (70%) harvested manually, and then the seed cotton is fluffed and cotton lint is separated from the seeds using a cotton gin.
- **Spinning:** Cotton lint is packaged into bales and sold to spinners who produce yarn. Most spinning mills are based in China and India.
- **Textile Manufacturing:** textile manufacturers transform yarn into fabric by knitting or weaving the yarn and applying dyes and finishes. End-consumer products are designed and produced from the fabrics.
- **Retail:** the final product is sold under a variety of brand names.

Total value added throughout the cotton value chain is several times the value of cotton at the production stage. For example, the retail price of a pair of jeans in the United States is about ten times the value of the cotton lint used in the production. The retail price for t-shirts is approximately 30 times the value of the cotton lint used in the production.

After sourcing the cotton from independent farmers, Esquel is involved in the process, from ginning the cotton to selling its own retail brands. The vertically-integrated supply chain offers a distinctive advantage and distinguishes Esquel as a global industry leader. Control of core processes from cottonseed research to product retailing facilitates end-to-end thinking. Being vertically integrated also enables the holistic understanding of pain points and their impact. Esquel is therefore well positioned to identify, prioritise and manage cross-supply-chain consequences. This allows the efficient allocation of resources and provides the framework for process flows and productive work practices.⁸

Going green along the textile value chain requires a series of interlocking interventions. First, cotton production has a large eco-footprint since cotton farming depletes soil nutrients, and conventionally requires water, insecticides and pesticides. Second, the textile fabrication is the second most polluting industry in the world, presenting a far larger environmental concern than that of cotton farming. To achieve more

sustainable textile manufacturing requires reducing chemicals and resource use (including energy and water), improving efficiency and accuracy of production, and reducing waste.

Greening the Esquel Value Chain

Esquel has taken actions at various levels of the value chain for the past ten years. Key initiatives have focused on the production of sustainable cotton, waste reduction through automation and wastewater reduction.

Sustainable Farming

Esquel supports sustainable farmers and imposes stringent constraints on its suppliers. Esquel buys from local farmers and cooperatives, mainly in Xinjiang. Esquel supports better farming and crop practices, such as drip irrigation, which have been widely adopted in Xinjiang. This practice helps safeguard scarce groundwater supplies and improve household incomes.⁹ Esquel also trains farmers in new agricultural techniques, including how to grow more productively and produce cotton that is of higher quality and value.

Esquel facilitates financing through a partnership with Standard Chartered Bank and provides price guarantees for farmers. This resulted in the doubling of yields in organic cotton farms. In addition, since 2007, Esquel has been using the "entrusted loans" mode to provide micro-loans to local cotton farmers with the total of 18.9 million Yuan, benefiting 1,769 cotton households. These initiatives and the long-term commitment to its farmers has secured Esquel's supply, allowing it to meet the increasing demand for sustainable cotton.

Automation

To better manage waste, Esquel has increased automation and subsequently improved its quality of production. More broadly, automation helps transition the workforce from manual labour in a traditional industry to become skilled technicians. Rather than relocating to countries with low wages, Esquel has invested in technology such as sensors, data systems and automation, making it possible to maintain and then increase wage levels. Wages for workers in mainland China can no longer be considered cheap, given that the minimum pay now stands at 1,000 yuan per month, 50 per cent (50%) higher than that of Indonesia and Vietnam and about four times more than that of Bangladesh.¹⁰

As Marjorie Yang, CEO of Esquel, says "the issue is not labour cost, but unit labour cost."¹¹ In keeping with this, Esquel's mainland workers are now paid about 3-4 times above the minimum wage in China, but these workers are

8. "Esquel Group – sustainable clothing," 30 March 2017, BUS446, <https://bus446spring17.wordpress.com/2017/03/30/esquel-group-sustainable-clothing/>

9. "Finance," Sina.com, 31 October 2007, <http://finance.sina.com.cn/hy/20071031/03014119883.shtml>

10. Enoch Yiu, "100m shirts and counting: Textile maker Esquel embraces technology cut costs and protect the environment," South China Morning Post, 20 July 2018, <http://www.scmp.com/business/companies/article/2055169/100m-shirts-and-counting-textile-maker-esquel-embraces-technology>

11. "Marjorie Yang of Esquel Group: Riffing on the circular economy," Fortune, 2 October 2015, https://youtu.be/rPRmmL2_qso

Confronting pollution in Asia

highly productive and they can earn more by achieving certain production volumes. Esquel has also invested in robots and other automated machines to help improve productivity. Skilled technicians who can think analytically are needed to operate the machines, robots and other automation machines that enable employees to work faster.

Reducing Water Use

Esquel has invested in R&D to reduce its usage of chemicals' other inputs, particularly water. A strong team of over 30 R&D scientists, specialising in varying aspects of chemistry and biochemistry, aim to examine the use organic dyes, increase the accuracy of the dyeing process, and improve the efficiency of water treatment and water recycling processes.

Reducing water consumption within manufacturing processes is also a challenging goal. Esquel achieved a 26% water consumption reduction per unit of production from 2010–2014 on a global basis. At its textile-manufacturing center in Guangdong Province, Esquel has set a stringent target of 15% energy savings for 2014–2016 with the introduction of the Energy Management System (EMS).

Since 2007,¹² Esquel and South China Polytechnic University have been collaborating on researching recycling the wastewater caused by textile production. In 2012, the collaboration completed a wastewater and recycling project at the efficiency of 5000 tons per day. Recycled water has been used in the production at the dye-printing workshop. In addition to this project, Esquel has also worked with universities on developing purification techniques. Esquel holds over 20 national patents on waste water recycling, water saving and recycling.

Esquel has also invested in wastewater treatment and set up its own water treatment facility in Gaoming (Guangdong, China) capable of processing up to 38,000 tons per day. Designed as a total-solutions treatment center, the facility has yielded water returned to source that ranks well above required standards. In 2011, with supplier collaboration, Esquel developed and installed a reverse-osmosis recycling system capable of processing 5,000 tons of wastewater per day into potable quality water that Esquel subsequently reuses in production. During 2014, this recycled water replaced 10% of the total water consumed at the main complex in Guangdong Province. Internationally, equipment upgrades and a planned new water treatment plant are in progress at the company's Sri Lankan factory.

Other water-focused initiatives include:

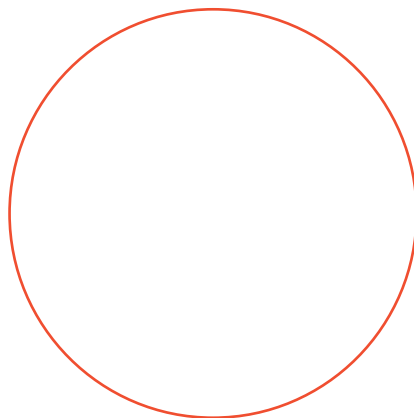
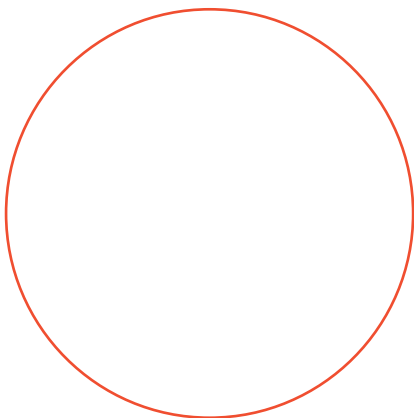
- **Low water level dyeing technology:** Compared with the traditional dyeing technology, this new technology can save 23% of water consumption, 7% of electricity and 10% of the use of chemical raw materials, reducing the amount of chemicals 1400 tons per day and reducing power by 3,780 kilowatts.
- **Recycling of cooling water and condensate:** Through technical renovation and equipment renewal, the company has recycled water and condensate, saving about 1900 tons of water per day and saving about 55 tons of steam. A heat exchange network in the workshops of dyeing yarn, finishing, and dyeing cotton recycles the waste heat of high-temperature water, saving about 137 tons per day.
- **Application of cold pad reactor pretreatment and dyeing technology:** Esquel integrated cold pad reactor pretreatment and dyeing technology in the relevant product technology, which can save over 80% of water usage and reduce electricity and steam consumption by over 70%.
- **Sewage treatment:** Esquel has invested \$7 million to establish a sewage treatment centre with the daily treatment capacity of 32,000 tons to ensure that dyeing and finishing sewage discharge meet 100% of national and local standards.
- **Waste alkali recovery:** The waste lye produced by the shuttle weaving plant is used for flue gas desulfurisation in power plants, which can reduce sulfur dioxide emissions by 600 tons each year.
- **Hot water recycling:** The high-temperature wastewater in the knitting factory is recycled for garment wash, saving 320 tons of coal each year. Esquel works with technical partners to improve energy efficiency technologies. For example, in the field of sewage treatment and reuse technology, the company cooperates with Toray, a Japanese company, and uses membrane bioreactor and reverse osmosis technology to effectively treat and recycle the waste water produced in the garment wash, dyeing and finishing workshop.

12. "News," Sina.com, 21 September 2015, <http://news.sina.com.cn/c/2015-09-21/doc-ifyhtxr3898462.shtml>

Performance and prognosis

The company has continued to grow and invest in green solutions for textile production. In terms of natural capital, the company reports on key indicators. From 2005-2017, Esquel reduced UNIT energy consumption (measured by unit of output) by 49%, and reduced unit water consumption by 67%. Esquel has also invested in setting up its own water treatment facility in its largest manufacturing site in Gaoming of Guangdong Province, China, that treats over 5,000 tons of wastewater daily. At the same time, Esquel has also focused on human capital. As noted previously, Esquel's wages to factory workers across their processing geographies are typically 2–3 times the local minimum wage.

Esquel's vertically integrated model provides a strong example of how investment in the natural and human capital within a supply chain can result in both strengthened stakeholder relations and company performance.





Saïd Business School at the University of Oxford blends the best of new and old. We are a vibrant and innovative business school, but yet deeply embedded in an 800-year-old world-class university. We create programmes and ideas that have global impact. We educate people for successful business careers, and as a community seek to tackle world-scale problems. We deliver cutting-edge programmes and ground-breaking research that transform individuals, organisations, business practice, and society. We seek to be a world-class business school community, embedded in a world-class university, tackling world-scale problems.

Mars Catalyst and the Economics of Mutuality programme

Mars' approach to business has long since been guided by five principles – quality, responsibility, efficiency, freedom and mutuality. Together they inform and guide the actions of all Mars associates every day as they do their jobs and interface with the outside world.

The origins of the Mutuality principle go back to 1947 when Forest Mars Snr, who led and grew the business through the 1920's to the 1960's, wrote a letter to all 500 associates of the company that said "the sole purpose of the company is to create a mutuality of benefits with all stakeholders that the company touches; from suppliers to customers as well as governments and competitors and naturally associates and shareholders." This far-sighted thinking, that the company could only be successful if everyone around the company was being successful, has been a cornerstone of Mars' business philosophy ever since.

Mars has therefore always been interested in how it can best live up to this principle; and to find new ways of driving mutuality with all stakeholders it touches. This led to Mars'

leadership tasking its economic research unit, Catalyst, to start new work into unexplored territory for business; to identify critical drivers of mutuality and, using business pilots, to develop and test new metrics and management practices that can help boost mutuality in business situations. This work has been called the Economics of Mutuality.

This work has established promising links between increasing social, human and natural capital (that can be measured with simple & stable metrics) and a corresponding increase in financial capital – demonstrating how a company can do both good and well at scale. A number of pilots have now been completed in the areas of micro-distribution, the employees of Mars and in agricultural development that suggest that these relationships are true in different places and situations.

The Oxford Mars partnership

On the back of these promising findings, a multiyear partnership with Oxford University's Saïd Business School was established in 2014 to focus on the development of a business management theory for the Economics of Mutuality with corresponding teaching curriculum, new management practices, and case study research. The research programme has combined the pursuit of normative questions – what is

mutuality and how should it be enacted? – with grounded, ethnographic research on current thinking and practices. This has led to the development of field experiments and case studies examining how large corporate actors conceive of and pursue responsible business practices, and how these relate to their financial and social performance.

Mutuality in Business

Tel: +44(0)1865 422875

Email: responsiblebusiness@sbs.ox.ac.uk

Web: [Economics of Mutuality](#)

Web: [Oxford Saïd Mutuality in Business](#)