What *does* “sustainable” mean?

A “Simple” Case Study….

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MetalWorks Ltd is a medium enterprise manufacturing widgets for the transport sector. The widget in this study weighs ~15 Kg and is supplied to Big Co, a major player in this sector.

Part of this widget’s process requires an intermediate metal treatment operation, performed by PJ & Son Platers, a small, family owned and run, business.

Big Co expects daily JIT deliveries, so the value chain is based on daily movement of materials between the various processing points.
PJ & Son Platers

- PJ & Son have been in business over 20 years, at the same location in an industrial estate in outer suburban Melbourne.
- PJ snr, the business owner, “learned the trade” working in the plating shop of a large manufacturing company, working his way up to be the foreman.
- When the company decided to outsource it’s plating operations, due to difficulties in waste disposal, he established the business by mortgaging the family home.
- PJ jnr joined his father 5 years ago after a failed attempt at a music career. Both father & son work ‘hands-on’, including operating plating baths.
- Disposal of liquid waste has always been a challenge for the industry. PJ had initially used a “filtering and dilution process”, before discharging into the drains. This was considered “OK” 20 years ago, but had never been formally sanctioned.
- A routine check of the nearby creek by the EPA 3 years ago revealed that heavy metal levels were critical. The source was traced back to PJ, who were fined.
- PJ from then on used a small contractor to remove the liquid waste in drums. They “verbally” requested, but never received the disposal certificate.
The Competitive Environment

• MetalWorks were recently listed on the ASX. They have a well established customer base, and a very good reputation, especially with Big Co.
• To counteract the perception of some investors that they were too locally focused, they established a JV with a Chinese company 3 years ago. In the last 12 months, they realised significant cost reductions by sourcing sub-components from the JV.
• MetalWorks’ long term outlook is to source complete products from the JV, leveraging the current currency position, and quality improvements at their JV.
• Big Co previously sourced exclusively locally, with a high expectation of local content. Recent reductions in tariffs, and gains in currency, has shifted their policy significantly. Big Co views using local “agents” as a means to insulate them from dealing directly with low cost countries.
• Big Co’s buyers are now heavily incentivised to deliver short term opportunities for sourcing from low cost countries: China is a preferred location.
How it all went wrong...

• PJ received a major infringement notice from the EPA. Their contractor, Moonlight Liquid Waste (MLW), was found to be disposing the waste in a nearby dam.
• MLW denied knowledge of the type of waste and, to minimise their own liability, agreed to fully disclose information about all of their clients.
• There was no formal contract in place between PJ and MLW, therefore PJ was deemed fully liable. In addition to a significant fine, PJ had to develop a disposal plan that had to be certified by the EPA.
• PJ realised that in addition to the significant costs of using a certified contractor, it would need to first treat the waste in-house. The capital cost to achieve this was in “six-figures”. PJ could not raise this capital unless they had significant guarantees.
• PJ approached MetalWorks who flatly refused to incur any costs or risks. PJ withdrew from the contract, and due to the loss of this significant turnover, went into administration a few months later.
• With the strong support of their customer, Big Co, MetalWorks transferred the whole production to their JV. The metal treatment was subcontracted, the exact location of this operation is still unknown.
The New Value Stream…

Machining
MetalWorks (China) Ltd

1/week

Plating

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1/week

Finishing
MetalWorks (China) Ltd

1/month

Warehouse

MetalWorks Distribution

1/month

1/day

Big Co
Some Questions...

• Did the planet benefit environmentally from this outcome?
  • How do we know how if the “problem” was simply transfered, or, if it is even worse in the new location?
  • How do the additional logistics steps impact the planet?

• Was PJ a sustainable business?

• How did investors’ (short term) expectations influence MetalWorks’ longer term strategy?

• Is Big Co’s purchasing strategy sustainable?

• And there are many others...