

Farming businesses with a passion for excellence

A report for



By Sarah Sivyer

2018 Nuffield Scholar

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Executive Summary

This report sets out to identify some of the unique ways 'excellent' businesses are pursuing a culture of continuous improvement.

Excellent businesses are obsessed with their customers. These businesses do not assume what their customer's desire, they ask, or better still they spend time with their customers as they are consuming their product.

Creating value involves getting close to customers as only customers can define value. These truly excellent businesses have started to change what customers value and are looking to put this out of reach of their competition. This has become even more important during 2020 where businesses that have been agile enough to create increased value for customers have thrived.

Building on research completed by Treacy and Wiersema, this report highlights that excellent businesses are leaders in one of three disciplines when it comes to creating customer value; operational excellence, customer intimacy or product quality. Most have exceptional product quality and have chosen to pursue operational excellence or customer intimacy as a further differentiator.

In pursuing customer value all the businesses examined have inadvertently started to apply the principles of lean. Each has the beginnings of a culture of continuous improvement with maturity varying from business to business. The opportunity to reap the benefits of continuous improvement is enormous.

This report only scratches the surface of the potential value of the application of lean to Australian farms. As this report highlights, farmers are naturally inclined to look for improvement opportunities, however, there is significant opportunity to go much further. This will come with deeper research into understanding what the customers value and by driving a culture of continuous improvement that not only looks to creating value but eliminating waste.

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Foreword

I run a pasture raised egg subscription business called 'Just Been Laid'. I farm around 2,000 layer birds and approximately 60% of what is produced is sold via an online subscription model, the remaining 40% go into the local wholesale café and restaurant market. As a farmer, the online subscription ensures predictable cash flow and predictable demand. For the customer, their value is created in receiving eggs no more than 48 hours old in a very convenient location.

Customers simply sign up online and select how many eggs they would like each week and then choose the hub (a local café) they would like to collect from. The initial hope of the business model was that the community, when collecting their weekly eggs, would also support the local café they were collecting from. If subscribers are away for holidays or they forget to collect their eggs, the eggs are donated on their behalf immediately to OzHarvest. To date, in combination with our weekly donations, we have donated close to 30,000 eggs or the equivalent of 15,000 meals as part of this business model.

I have introduced my business first as it feels to me to be the first time I have been able to start to apply many of the learnings I have gained over a 15 year corporate career combined with, growing up and wanting to return to, the family cattle farm as the fifth generation.

My interest in continuous improvement began almost 15 years ago when, as a chemical engineer, I trained to become an accredited Lean Six Sigma Black Belt. I was working for BHP Billiton at the time and this created opportunities to work on projects that delved deep into organisational culture and strategy while at the same time validating my love for data and statistics (nerd alert).

An appetite for learning meant that my next stop was Oxford University where I completed my Masters in Business Administration. This solidified my desire to eventually start my own business one day down the track while also recognising the immense power in diversity of thought. Something that has been strongly reinforced in my last two years with Nuffield.

I remained overseas after Oxford and took up an opportunity with Syngenta in Switzerland where I worked in the area of Food Security. This involved developing Syngenta's commercial

strategy for working with smallholder farmers, who at the time, numbered close to one billion across the world.

My time with Syngenta allowed me to transition into corporate agriculture and on my return to Australia I took up a role with the International Finance Corporation, a part of the World Bank. Once back in Australia I was very keen to take up a role in Australian agribusiness and I took up an extraordinary opportunity to join Rabobank's Food and Agri Research team.

Completing research on topics relevant to farmers by traveling Australia and listening to them was a dream role. This also gave me my first exposure to previous Nuffield Scholars and some of the innovative farming and business practices they were undertaking.

The choice of this topic around how excellent businesses are creating customer value and applying lean principles of continuous improvement to their business will be relevant to any business, in any industry. While most of the examples are within horticulture and livestock farming, the concepts are general enough to be translated to all walks of agricultural business. My passion for this topic is as a result of a career filled with implementing continuous improvement programs and with a desire to dig deeply into how farming businesses can use lean values and the creation of customer value as a point of differentiation to continue winning.

In completing my research, I visited entrepreneurial farmers across Japan, Israel, the UK, the USA, the Philippines, Italy, the Netherlands, New Zealand and Australia. The over-riding takeaway for me has been that farmers face challenges everywhere, however, the businesses that stand out (and those that I really wanted to research) are those with founders with an absolute passion for excellence. They are never done in improving what they do, they are obsessed with understanding their customer and accidentally or not, in their pursuit for improvement and excellence, they are applying elements of the Japanese "lean culture" in all that they do.

Once again, this research would not have been possible without the support and investment of NSW Department of Primary Industries. A massive thank you to them for having the vision to acknowledge that there are many ways to pursue excellence and to encourage knowledge sharing in agriculture with a Nuffield Scholarship being one of those ways.



Figure 1: Sarah Sivy at Chessenden Farm Source: Author

Acknowledgments

I would like to acknowledge the very generous support of my investor, NSW Department of Primary Industries (DPI). Over the last two years I have had the opportunity to watch DPI's Young Farmer Business Program go from strength to strength. I have no doubt this program will be reflected upon by farmers in years to come as the catalyst that helped them turn their business from a farm to a thriving, innovative, financially sustainable enterprise. A very big acknowledgment to the very special Sonia Muir, Pip Job and Alex Hicks from NSW DPI.

I would like to thank my peer group of 2018 Nuffield Scholars and in particular the group of nine that I travelled with for six weeks as I undertook my Global Focus Program. I found those six weeks to be the most thought provoking of my career to date which was largely due to the discussions and debates held throughout our travels and the great times that were had solving the problems of the world. Many of the improvements I have started to consider in my own business have been a result of those conversations and I suspect I will use this group as a sounding board for many years to come, if not a lifetime.

In particular I'd like to say a big "thank you" to Sonya Comiskey who, like me, had a bit of a bumpy ride through 2018/2019 outside of Nuffield and it is with your support and friendship that I feel I was able to maintain that level of inspiration that is so aligned with the Nuffield experience.

And finally, I'd like to thank my family. To my mother, thank you for the encouragement to pursue such endeavours as Nuffield, to my brother, thank you for stepping in to help look after my business while I was off learning and to my father, who passed away mid-way through my Nuffield experience I'd like to thank his quiet encouragement and support when I decided to return to the farm and his partnership in helping me get my business to where it is today.

Objectives

- Understand how excellent businesses continually look to create customer value.
- Understand if lean (continuous improvement) principles are being applied across these farming businesses.
- Identify what opportunities lie for other businesses to pursue excellence.

Chapter 1: Pursuing excellence

Excellent companies are obsessed with their customers. They also “stick to their knitting” (Peters and Waterman, 1983).

Companies that have taken leadership positions in their industries typically have done so by narrowing their business focus, not broadening it. They have focused on delivering superior customer value (Treacy and Wiersema, 1993). Peters and Waterman (1993) would go further and add that these companies focused on what they were good at and strived to be the best at it.

1.1 What is customer value?

“Value can only be defined by the ultimate customer” (Womack and Jones, 1996). Customer value can be put simply as delivering what the customers want, when they want it, in the amount they want at an agreeable price ... with increased precision leading to increased value. In the customer’s eyes this may translate to include any number of criteria, for example convenience, customer service, reliability, quality, price, etc. It would also be logical to assume that the more of these criteria the company includes in their offering the more value created for their customer and the better the offering. This is not, however, what the research concludes (Treacy and Wiersema, 1993).

Truly excellent companies “have focused on delivering superior customer value in line with one of three value disciplines—operational excellence, customer intimacy, or product leadership. These companies have become champions in one of these disciplines while meeting industry standards in the other two” (Treacy and Wiersema, 1993).

1.1.1 Operational excellence, customer intimacy and product leadership

Toyota’s pursuit of operational excellence through continuous improvement became a strategic differentiator (Liker and Franz, 2011). Operational excellence is broadly defined as providing customers with reliable products or services at competitive prices and delivered with minimal difficulty or inconvenience (Treacy and Wiersema, 1993).

Customer intimacy, the second value discipline as defined by Treacy and Wiersema (1993), means “segmenting and targeting markets precisely and then tailoring offerings to match

exactly the demands of those niches. Companies that excel in customer intimacy combine detailed customer knowledge with operational flexibility so they can respond quickly to almost any need, from customizing a product to fulfilling special requests. As a consequence, these companies engender tremendous customer loyalty”.

Product leadership translates to delivering a product with the highest possible quality that enhances the customer’s experience such that it makes a rivals’ product obsolete (Treacy and Wiersema, 1993).

1.2 A lean culture

Lean is a way of life. Simply put, lean looks to create customer value and eliminate waste. Taiichi Ohno, the founder of the Toyota Production System, described Toyota’s lean method as “looking at the timeline from the moment the customer gives us an order to the point where we collect the cash. And we are reducing the timeline by removing non-value added wastes” (Hartman, 2015).

Womack and Jones (1996) go on to define the lean approach as a set of steps:

1. Precisely specify what customers value.
2. Identify the value stream for each product.
3. Make the value-creating steps flow without interruptions.
4. Let the customer pull value from the business.
5. Pursue perfection.

In farming terms this means:

1. Precisely identifying customer value - understanding the customer’s desires.
2. Identifying the value stream - mapping the farm product and the steps it goes through, from start to finish. This is rarely undertaken by any business and inevitably highlights staggering amounts of waste (Womack and Jones, 1996)
3. Creating flow without interruptions - gets the producer to look at their map and find anything and everything that does not add value (this process will be described in much more detail in chapter 3) and figure out ways to get rid of that waste.

4. Pulling value rather than pushing - refers to producing exactly what customers want and letting them pull the business' production, this ensures the farmer does not over produce.
5. Pursuing perfection – developing a culture of continuous improvement where the farming business always seeks to create customer value and eliminate waste. It just becomes part of who they are.

1.3 Why is this important?

This research is important as it is an opportunity to identify farming businesses that are on this journey, applying elements of lean (knowingly or unknowingly in some cases) and seeing the benefits. This research hopes to share some of the simple ways these excellent businesses are going about creating customer value and applying a lean culture.

Some of the most differentiating factors about these excellent businesses and the traits that are common to all revolve around the attitudes of their founders:

- They have a desire to be the best at what they do.
- They are obsessed with their customers.
- They have an attitude to just get out there and try something. As Peters and Waterman (1993) would say, the trick, and it is a tough one, is to understand what kind of failure is ok and what kind leads to disaster.

These traits describe many farmers across Australia. This research hopes to summarise opportunities for those farmers to improve even further.

Chapter 2: Creating customer value through establishing strong customer intimacy

2.1 Why is 'closeness' to the customer important?

Closeness to the customer is a critical success factor when seeking excellence. "Excellent companies really are close to their customers. That's it. Other companies talk about it; the excellent companies do it" (Peters and Waterman, 2006).

Marcel Dings (2019), founder of Brookberry in the Netherlands, believes "getting as close to the customer as possible is an absolute must. The distance between the customer and the grower is too big elsewhere. Having customers very close is the quickest, most valuable way to ensure the business is able to meet the customer's requirements but more importantly, work with them to create the most value possible."

"Close" in this instance refers to how intimate the relationship is with the customer as opposed to geographical distance. Intimacy implies that the business has come to know their customer's habits and wants, and is able, to some degree, to anticipate their needs.

Marcel Dings goes on to observe that "the most important reason that customers buy from us is flexibility. A customer will ring us at 8am in the morning with a large wholesale order and we can have that order packed, in the packaging that the final customer will receive, by 11am the same day" (Dings, Pers. Comm., 2018). Dings ensures that customers have a direct line to him so that such requests can be met. Flexibility is Brookberry's point of differentiation.

Mark Hayward from Dingley Dell agrees, "creating strong, genuine relationships is what we do" (Hayward, Pers. Comm., 2018). In the day to day operations, both Dingley Dell and Brookberry have an intermediary between them and the customer when it comes to the transactional side of the supply relationship (Dingley Dell a distribution partner and Brookberry a trader). However, both founders ensure they have direct relationships with the "end customer" who needs to extract value from the product.

Researching customers with the same level of energy and focus as researching how to improve production practices is a core focus of Paul Kelly at Kelly Bronze. Kelly (2019) craves customer

data. Kelly looks to combine all customer demographic data with other known economic trends to anticipate potential customer needs. Kelly also writes to all customers who have returned for five consecutive years to purchase one of his turkeys to thank them for their support and to ask what else Kelly Bronze could be doing to support them. Kelly Bronze's chacourterie business is a direct result of this.

2.2 Choosing your customers

Brookberry founder, Marcel Dings, goes further when talking about customer intimacy. Mr Dings firmly believes that businesses should choose their customers. Marcel Dings suggests that businesses should be looking to customers who offer the most overall value to the business rather than just those that generate the most revenue. For example, in the business of strawberries, Brookberry knows that not all of its strawberries will be available for sale at a premium price due to variation in product quality such as size, colour and weight. However, they also know that other European customers value flexibility and reliability as long as quality is at an agreed level. The latter customer is of significant value to the likes of Brookberry as value comes from being able to sell the entire crop when it is known that only 20% of the product will be able to reach a premium. In this instance flexibility is of value to the customer and Brookberry strawberries are able to anticipate those needs.

Exceptional product quality is essential for these excellent businesses when creating customer value. However it is not always clear as to which elements of the product have been derived through listening to and understanding the customer's desires and which are assumptions made by growers as to what their customers perceive to create value. Steve Jobs, the founder of Apple, is famous for saying "a lot of times, people don't know what they want until you show it to them" (Mui, 2011). Finding a balance between the two is a challenge faced by all the businesses interviewed.

In his article, *Choosing the Right Customer*, (Simons, 2014), proposes some simple steps to begin to anticipate the needs of a customer and further still to uncover what they do not know they need. These include asking customers what the competition is doing better. To uncover needs that customers do not know they have, Simons recommends ethnographic studies where businesses spend time in the homes of customers to fully grasp how customers utilise their products and, further still, identify potential opportunities.

2.3 Emotional motivators

These excellent businesses are aware that their customer's purchasing patterns can be emotionally driven. In Magids, Zorfas and Leemon (2015), the authors suggest that business "should pursue emotional connections as a science – and a strategy". Customers are considered to be emotionally connected to a brand when "it aligns with their motivations and helps them fulfil deep, often unconscious, desires. Important emotional motivators include desires to "stand out from the crowd," "have confidence in the future," and "enjoy a sense of well-being," to name just a few" (Magids, Zorfas & Leemon, 2015).

Founder of Kelly Bronze, Paul Kelly, is well aware of the emotional connection customers feel to their food experience when they join the Kelly Bronze community. "It is about more than the turkey, it's about the entire food experience – which is why we include instructions on how to cook the bird. We also include a meat thermometer so they don't overcook it and we make sure that they are aware of our story and are able to tell that story to their friends and family as they are sharing the turkey on Christmas day" (Kelly, Pers. Comm., 2018).



Figure 2: Paul Kelly from Kelly Bronze and chef Jamie Oliver Source: Farmers Weekly (2018)

A Kelly Bronze turkey is positioned as a once a year purchase, for those who want the best for their family and friends on Christmas Day. To reinforce this position as only the best for family, the Kelly Bronze turkey boasts an array of supporters in the form of influencers from Nigella Lawson, Gordon Ramsay, and Jamie Oliver. Aligning the brand with the likes of the above chefs helps to persuade customers who are looking to stand out from the crowd and be seen to be part of a special experience.

Customers are also driven by a desire to support “increased welfare” foods. Kelly (2018) describes their turkeys as being “born to be wild” with all imagery directed at the birds roaming in forests of cherry orchards with seemingly little else to worry about other than eating and dust bathing. Everything about the branding associated with Kelly Bronze turkeys is directed at making the customer feel like they are doing the right thing by using a “natural” product, that is processed “traditionally and by hand” to create the highest quality flavour possible.

**QUITE PROUDLY A PRODUCT OF THE
SLOWEST FARMING METHOD IN THE
WORLD**

**WE'RE ALL ABOUT THE NATURAL SEASON
AND THE TRADITIONAL SLOW GROWING
BREEDS**

PLUCKED TRADITIONALLY BY HAND

**THE MORE MATURE THE BIRD, THE BETTER
THE FLAVOUR**

Figure 3: Quotes describing Kelly Bronze production method Source: Kelly Bronze website (2019)

2.3.1 Emotional connection data provides insight into where businesses should invest

“On a lifetime value basis, emotionally connected customers are more than twice as valuable as highly satisfied customers. These emotionally connected customers buy more of your products and services, visit you more often, exhibit less price sensitivity, pay more attention to your communications, follow your advice, and recommend you more.” (Zorfas and Leemon, 2016).

Identifying which customers to invest in is a very powerful data set. All businesses have unsatisfied customers and it is often very tempting to focus on trying to turn them around. The above results would suggest there is significantly more value for businesses to focus on converting highly satisfied customers to fully connected. Research shows that this would have

three times the value than trying to turn unsatisfied customers into satisfied customers (Magids, Zorfas and Leemon, 2015).

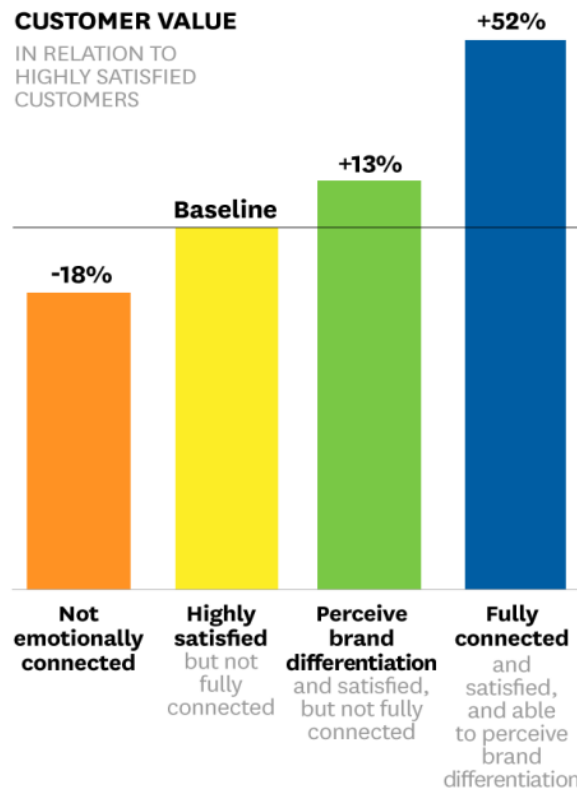


Figure 4: Customer value in relation to highly satisfied customers Source: Magids, Zorfas & Leemon (2015)

Mark Hayward, founder of Dingley Dell, is also very aware how powerful it is to be able to appeal to customers emotional triggers. Dingley Dell supply to food services (restaurants, catering, etc). In food service, often the decision maker as to what goes on to a menu is the head chef. With this in mind, over the last five years Dingley Dell has had more than 500 chefs a year attend their farm to participate in a farm experience. The chefs cuddle a piglet, learn about the truly free range production process and in particular hear about how Dingley Dell is leading the way from a scientific perspective on pursuing excellence in the way pork tastes (Hayward, Pers. Comm, 2018).

Not all chefs turn into customers, however if they do, Dingley Dell and their distribution partner, Direct Meats, work very hard to move the customer along the curve shown in Figure 4. That is, from a highly satisfied customer using a premium product to a fully connected customer that becomes an advocate for the brand and will often go on to not only recommend

the Dingley Dell product but also increase their spend across other lines in the business such as the new charcuterie line (Hayward, 2018).



Figure 5: Chef farm tours at Dingley Dell farm in Sussex, UK Source: Dingley Dell Instagram stream

Theory suggests there are strategies to move customers along this curve, however, when discussing this theory on visits to these businesses everyone cringed at the thought of doing this formally. These farmers do this instinctively and most importantly they are genuine and authentic in their interactions with their customers.

Farmers are at an advantage when it comes to authenticity. This is a trait that comes naturally to most and with the advent of social media it has become easier to share this authenticity with the wider public.

Boston Consulting Group found that authenticity was a major driver for customer engagement in all demographics, particularly for the “younger millennial consumers (born between 1980 and 2000), it was second in importance only to rewarding their loyalty with discounts” (Schumpeter, 2015).

2.4 Why do businesses find it so hard to correctly define value?

Most companies assume that their products and services meet the needs of their customers. Producers want to make what they are already making. This combined with the customer only knowing how to ask for a variant of what they are already getting seemingly makes new value creation hard (Jones and Womack, 1996).

Almost all businesses visited throughout the Nuffield journey answer questions about how they find out what their customer's desire by changing the premise of the question and answering with "we find out how happy our customers are by the number of complaints". While this may measure customer satisfaction, it does so with hindsight rather than really understanding how connected customers are to their business and where new value could be created.

The advantage that many farmers and producers have is that, unlike corporate giants, their business does not consist of tens of different departments and they are able to follow their product through its entire production life (Womack and Jones, 1996). A farming family usually makes up the marketing department, the production department, the engineer, etc. Farmers and producers are able to easily (usually) meet with their customers to focus on creating the value the customer really needs.

Chapter 3: A lean culture - creating customer value and minimising waste

Lean comes naturally to many farmers. Most farmers are business owners and are constantly looking for ways to delight their customers and remove waste from their processes.

According to Lean Thinking (Womack and Jones 1996), there are only three types of activities that can occur on farm, or for that matter, within any business:

1. Activities that create value.
2. Activities that create no value but are necessary.
3. Pure waste.

“A helpful explanation of an activity that doesn’t add value but is necessary is by Shigeo Shingo, a Japanese engineer many call the world’s leading expert on manufacturing practise, where he observed it’s only the last turn of the bolt that tightens it – the rest is just movement” (Hartman, 2015).

Taiichi Ohno identified seven types of waste in Toyota factories. All of which can be applied to farming today (Womack and Jones 1996):

1. Defects in products.
2. Over-production of goods that are not needed - which describes unsold crops or livestock.
3. Inventories of goods awaiting further processing or consumption.
4. Unnecessary processing – where the farmer does more for their customer than the customer is willing to pay for.
5. Unnecessary movement (of people) – an example would include people walking too far to find missing tools.
6. Unnecessary transport (of goods) – where farming product is moved around the farm or elsewhere unnecessarily.
7. Waiting (by employees) for equipment to finish its work or an upstream activity.

Rather than discussing the above theory, this report will move straight into examples of the strategic application of lean principles on the farms visited across this scholarship. It should

be noted that only one farm, from these examples, was deliberately trying to apply lean principles, all others were unknowingly applying elements of key principles highlighting the common sense notion of lean but also the significant opportunity that exists for farmers to take up other elements of lean to see significant improvements in customer value and waste minimisation.

3.1 Customer first - “go and see”

Get to know the habits and needs of customers. Businesses all describe putting themselves in their “customers shoes”. That is, they “go and see for themselves” how their customers engage with their products. What they use them for, how they use them and how their product could be made more valuable. The Japanese describe this process as “genchi genbutsu” or “go and see to deeply understand”. Kiichiro Toyoda (the founder of Toyota) was famous for saying after the decimation of Japan in World War II – “I would have grave reservations about our ability to rebuild Japan’s industry if our engineers were the type who could sit down to take their meals without ever having to wash their hands” (Liker, 2004).

One of the businesses included in this report actually attends customer’s homes as they are preparing dinner using food that he has grown. (He asked not to be named.) This ethnographic research, in the space where the product is actually consumed, helped to identify additional tools and information that would be of value to the customer which now come as standard.

Businesses also acknowledge that they have different customers, and each have different requirements. For example, Kelly Bronze’s retail customers are a ‘direct to market’ channel who require convenience. Kelly Bronze sample customers for their feedback as to their online experience. As previously noted, (Simons, 2014) suggest that some of the most insightful feedback comes when you compare yourself to competitors. Although Amazon is not a direct competitor to Kelly Bronze, its online experience is one which most customers are familiar. Kelly Bronze has been able to improve its online customer experience through comparisons with Amazon’s seamless customer journey (Kelly, Pers. Comm., 2018).

3.2 Standardisation

Standardisation simply translates to the same task should be performed the same way no matter who is doing the work.

At Asai Nurseries in Japan, owner Yuchiro Asai describes how he ensures tomatoes are all harvested for consistent quality. “Every employee is trained to harvest in the same manner. All harvest tools are located on a shadow board. It is named this way so that when the tool is in use it is obvious that it is not hanging on the board. Each harvest trolley has a tomato colour chart fitted so that employees can compare their tomatoes and only harvest those in the appropriate colour range” (Asai, Pers. Comm., 2018).

The shadow board helps to save time when looking for tools. If an employee was to spend ten minutes looking for the right tool to complete a task (each day, seven days a week, 365 days a year) this equates to 60 hours of wasted time when the employee could have been completing value added work. 60 hours at \$25/hour equates to just over \$1500 each year looking for a set of secateurs or scissors ... then multiply that by the number of employees.



Figure 6: Asai nurseries shadow board for all harvest tools Source: Author (2018)

The harvest trolley is on wheels so that everything moves with each individual employee and there is minimal motion by the employee. There is an opportunity to minimise further the transportation of the product as currently the tomatoes are placed in crates for sorting and re-packaging elsewhere meaning the employee is spending unnecessary time transporting the trolley to other locations for packaging.

The tomato colour chart on the trolley minimises the chance of rework by ensuring the correct plants are harvested.



Figure 7: Asai nurseries tomato colour charts and harvest trolley Source: Author (2018)

Standardising this process along with completing the process in many small batches has many advantages including maintaining consistent quality as per the customer's requirements. Mistakes show up instantly rather than at the completion of a large batch enabling defects to be minimised and thus, in turn, focussing on quality and minimising waste (Womack, Jones and Roos, 1990). Defects and rework (having to do something for a second time) count for hours of lost time in every business.

3.3 Create shared value in the value chain

These excellent businesses create shared value with partners in their value chain. Collaboration along the value chain is more than just a deal, it is an opportunity for businesses with different skills to come together to create additional, lasting value.

In the 1950s, Toyota established a new lean production approach to relationships with its suppliers. Unlike mass production, Toyota's suppliers were intimately involved as partners in steps such as product development which accelerated quality improvements and innovations (Womack, Jones, Roos 2007).

Moss Canter (1994) describes three fundamental aspects of successful collaborations:

1. They must yield benefits for both partners.
2. The collaboration creates new value together rather than a mere exchange. Partners value the skills each brings to the alliance.
3. The partnerships cannot be controlled by formal systems but require a deep web of interpersonal connections.

Dingley Dell has established such relationships with both its distributor and its processing partner. Mark Hayward (Pers. Comm., 2018) from Dingley Dell describes Direct Meats (Dingley Dell's distribution partner) as an extension of Dingley Dell. "They are here on farm with us when we have chefs on tour, they participate in our charity work and I can just sit down and have a beer with them". Mr Hayward goes on to comment "I cannot over-emphasise how important it is to manage the partnership in human terms".

Mr Hayward also goes on to describe the relationship he has with his processing partner. This is where all of Dingley Dell's pigs are processed into specific cuts. "I speak with our processing partner three times a day" (Hayward, Pers. Comm., 2018). By creating this feedback loop the processor is able to give Mr Hayward real time feedback and metrics on the quality of the product as it is being processed so that decisions can be made on the destination of the product. This saves waiting time that would have been accrued by the carcass and reduces the overall cycle time of this product travelling from the farm through to the end customer.

3.4 Maximise utilisation of fixed assets

Most of the largest costs farming businesses have are fixed. Whether that be greenhouses in the case of Brookberry or rearing sheds at Kelly Bronze turkeys. In most cases strawberry growing would be seasonal and certain times of the year the greenhouses would be empty and not being utilised. Both businesses have identified ways of utilising these assets throughout the year.

One of Brookberry's differentiating points is that it produces strawberries 365 days a year rather than just in the traditional growing season. This allows Brookberry to get a better return on investment on their assets and also helps to smooth production and level the load over the course of the year. By smoothing production other costs are also smoothed. For example, staff

are now able to be employed full-time throughout the year rather than on a casual, short term basis. This also removes other types of waste when it comes to maintaining product quality as employees are trained and incentivised to complete top quality work rather than short term seasonal workers who may not have the longer-term interests of the business front of mind.

3.5 Production control and customisation of customer product

The aim here is to produce the exact amount rather than as much as possible. To:

- be as precise as possible in forecasting and monitoring sales;
- understand different quality requirements for different customers; and
- harvest only what you plan to sell.

This is very easy to say and much harder to implement. There is agreement between all businesses included in this study that they produce enough to satisfy their premium markets. Then, if Brookberry strawberries is used as an example, they understand that there will be variation in their crop such that only x% will meet the premium market (Japanese) criteria of size, weight, colour and taste. To counteract this, Brookberry has developed other markets.



Figure 8: Strawberries being packed at Brookberry for the Japanese market. Compressed air being blown on the strawberries to remove dead leaves Source: Author (2018)

3.5.1 Brookberry production control and product quality

25% of Brookberry's product is sent to the premium market of Japan. As a customer, the Japanese are specific. As an example, see Figure 8, Brookberry's strawberries are to be 13-15g in size, a particular colour as matched against a colour chart, presented in their punnet in the same direction, with bubble wrap under the strawberries. In discussions with the Japanese customer Brookberry was able to understand that further value could be created through the removal of the small dead leaves that are inevitable in all punnets of strawberries. Brookberry designed a simple solution where the finished punnets would travel, by conveyor, underneath a stream of compressed air that would blow the leaves out of the punnet. Figure 8 also shows the strawberries travelling on the conveyor under the stream of compressed air.

The Japanese are willing to pay a 30% premium for the additional value created through packaging, standardisation and presentation of the finished product in a perfect state.

As a comparison, Brookberry strawberries also supplies the European trade market where strawberries outside of the Japanese customer's target size range are able to be sold. Strawberries are packed straight from harvest into their end packaging boxes as shown below in Figure 9. Mr Dings (Brookberry Founder) also reinforced that packing straight into the customer's packaging is not something that is standard across the industry. This reduces double handling which helps to preserve the strawberries in their best condition and also reduces labour costs by not having to re-pack.



Figure 9: Strawberries being packed at Brookberry straight from harvest to the broader European market Source: Author (2018)

Mr Dings (Pers. Comm, 2018) suggested that product quality is certainly an essential part of creating customer value however service and flexibility has proven to be most important to his customers once they know that exceptional product quality is assured.

3.5.2 Kelly Bronze, Dingley Dell and value-added products

Both livestock producers, Dingley Dell Pork and Kelly Bronze Turkeys, have added a chacourterie product range to their offering. In the case of Kelly Bronze turkeys this enables breeding stock to be value added. It is early days for both Dingley Dell and Kelly Bronze in their chacourterie businesses however both acknowledge that it will help with smoothing production waste and look to increase the value of the overall carcass of the pigs and turkeys respectively.

3.6 Avoid unnecessary processing

“Go above and beyond what the customer expects” is something you hear frequently. From a customer service perspective, exceeding expectations can be seen as a positive, however from the actual product itself, the question needs to be raised as to whether the business is “over-processing”. Over-processing occurs when businesses do more than what the customer is willing to pay for.

Marcel Dings from Brookberry strawberries is very quick to point out that strawberries are harvested and placed straight into the end packaging – that is, the packaging that will end up in the end customer’s fridge. This avoids double or tripling handling which occurs in other businesses as strawberries most often are harvested from the plant, placed in crates, then in boxes and transported to another location for packaging. Aside from the time wasted in putting the strawberries in new storage containers there is also a risk of bruising the fruit, which would lead to the notification of a quality defect, another form of waste.

Brookberry strawberries are also not washed or cleaned in any way. The watering system in the green house and the careful handling of the harvesters ensures the strawberries are ready for presentation to the final customer.

3.7 A focus on cutting costs however customer value is still the most important

Reducing costs rather than scaling is a more efficient way to improve profitability. The simple underlying factor being that to increase sales, costs also need to increase (both variable and fixed) as you scale your business. Decreasing costs is simply that (Hartman, 2015).

Dingley Dell has taken on a cost cutting exercise that has nothing to do with cutting employee numbers. Everything is about continuous improvement and using the three main employees to identify opportunities for improvement. Improvement can come in the form of reduced costs (leading to increased profitability). The three employees are incentivised by being offered 10% of all additional profit. Improvement can also come in the form of making things easier and thereby not overburdening the team or even freeing them up to do more value adding work.

The founders of Dingley Dell, Mark and Paul Hayward, meet with their team of three each month and go through all production expenses. This means giving the team visibility on everything. With the numbers on full display and comparisons able to be made month to month, the team have identified continual opportunities for work to be completed in more efficient ways.

In recent months, some of the simple quick wins included:

- focussing on tractor maintenance so that repair costs were reduced
- identifying opportunities for two of the team to complete a task in a more efficient manner rather than all three – ensuring the third is able to focus on a different task
- the team identifying that they do not need that fourth employee that they have been asking for over the last six months

Dingley Dell are very aware of how they create customer value and so all decisions around cutting cost are in the context of continuing to create customer value.

3.8 Push versus pull pricing

Prices should be determined by market realities and what customers are willing to pay. Taiichi Ohno believed that setting prices based on cost of production plus a margin “makes the

consumer responsible for every cost". Farmers should be responsible for their cost. If the production system is full of waste rather than being lean and full of value that is the farmer's problem (Hartman, 2006). Products and prices that are full of value will create a pull situation where the customer creates demand.

Prices that push happen in situations where there is over production and prices are set to undercut the market. By significantly reducing your prices, you significantly reduce your profits. Hartman (2015) eloquently describes this as "rather than increasing value by creating a better product, you are "adding value" – making your product more desirable – by robbing your own profits". In short, similar to Dingley Dell and Brookberry strawberries, grow or produce less of the high value product and sell all of it rather than producing much more and then have to reduce prices.

Chapter 4: Bringing it all together with a culture of continuous improvement

Chapter 3 highlights examples of lean principles being applied unknowingly by businesses. These principles are often common sense and standard business practice. However, not all businesses do this in a methodical manner and not all businesses have a keen eye for waste in their value stream.

By following the steps observed by Womack and Jones (1996) any farming or food business could add significant value to their end customer and in turn to their own operation.

These steps should be reinforced until it becomes second nature:

1. Precisely specify what customers value.
2. Identify the value stream for each product produced.
3. Make the value-creating steps flow without interruptions. Eliminate the waste.
4. Let the customer pull value from the business.
5. Pursue perfection.

These steps do require some education in the application of lean and an understanding of the basic concepts of lean however, this should not be seen as a significant barrier by farmers to forgo this opportunity to improve, delight their customers and edge out their competition.

From an internal business perspective, a strong culture of continuous improvement is also a way to make work more satisfying for all employees as, inevitably, they are the source of ideas for almost all improvement opportunities.

Conclusion

“There is no end to the process of reducing effort, time, space, cost and mistakes while offering a product which is ever more nearly what the customer actually wants. Suddenly perfection doesn’t seem like a crazy idea” (Jones and Womack, 1996).

Pursuing excellence involves creating customer value with the same energy that farming businesses would look to pursue improvements in production. Many businesses find it hard to create new value for their customers as producers like to make what they are already making. This combined with customers being unable to articulate more than a variant of what they are already getting can make it difficult. A quote attributed to Henry Ford, sums it up nicely, “If I had asked my customers what they had wanted they would have told me a faster horse”.

There are tools that can be used to gain valuable insights, not least, asking customers what can be done differently or better still spending time with customers as they use the product. As Peters and Waterman (1993) put it, “excellent companies really are close to their customers. That’s it. Other companies talk about it; the excellent companies do it.”

Lean principles of continuous improvement are a proven way to both create customer value while removing waste from processes. Inevitably it becomes a way of life. It is just how business is done. Farming businesses should start to think about the steps proposed by Womack and Jones (1996) and consider applying them to their own businesses. They are relevant across all industries and all fields within agriculture. Precisely identify customer value, map the product’s value stream (this is critical as it is rarely done by businesses), create flow for the product by removing as much waste as possible, let the customer’s pull the product and finally, but most importantly, keep doing all of the above over and over again. This is when a culture of continuous improvement has been developed allowing perfection to be pursued.

We are what we repeatedly do. Excellence then is not an act, but a habit. (Aristotle)

Recommendations

The author offers the following recommendations to businesses looking to pursue excellence:

- Seek to create customer value. Do this by speaking with customers and asking what the competition is doing or better still spend time with customers while they use your product.
- Get close to customers and understand their emotional motivators.
- Pursue customer value with the same energy that is spent on improving production.
- Map the product's value chain from start to finish. Once mapped, remove as many non-value adding steps as possible to create uninterrupted flow.
- Pursue perfection through a culture of continuous improvement.

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Plain English Compendium Summary

Project Title:	Small Giants. Farming businesses with a passion for excellence
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Scholar:	Sarah Sivyer
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Objectives	<p>Understand how excellent businesses continually look to create customer value.</p> <p>Understand if lean (continuous improvement) principles are being applied across these farming businesses.</p> <p>Identify what opportunities lie for other businesses to pursue excellence.</p>
Background	<p>The choice of this topic around how excellent businesses are creating customer value and applying lean principles of continuous improvement to their business will be relevant to any business, in any industry. While most of the examples are within horticulture and livestock farming, the concepts are general enough to be translated to all walks of agricultural business. My passion for this topic is as a result of a career filled with implementing continuous improvement programs and with a desire to dig deeply into how farming businesses can use lean values and the creation of customer value as a point of differentiation to continue winning</p>
Research	<p>In completing my research, I visited entrepreneurial farmers across Japan, Israel, the UK, the USA, the Philippines, Italy, the Netherlands, New Zealand and Australia. The over-riding takeaway for me has been that farmers face challenges everywhere, however, the businesses that stand out are those with founders with an absolute passion for excellence.</p>
Outcomes	<p>Lean principles of continuous improvement are a proven way to both create customer value while removing waste from processes. Inevitably it becomes a way of life. It is just how business is done. Farming businesses should start to think about the steps proposed by Womack and Jones (1996) and consider applying them to their own businesses.</p>
Implications	<p>Significant opportunities for farming businesses across Australia to pursue excellence by creating customer value with the same energy that they would look to pursue improvements in production. Lean principles of continuous improvement are a proven way to both create customer value while removing waste from processes. Covid-19 has put unprecedented pressure on businesses and customers. The ability to create customer value in these uncertain times has been an additional differentiator.</p>
Publications	<p>Nuffield Conference, September 2019. NSW Department of Primary Industry, Young Farmer Business Conference, February 2020</p>