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From Supply Chain to Value Chain.

**Understanding the Mindset needed to transition for Lamb
Producers.**

Kellogg Rural Leadership Programme

Course 49 2023

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I wish to thank the Kellogg Programme Investing Partners for their continued support.

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Authors Note

I currently work for Lone Star Farms as the Southern Regional Manager, and we are involved in Headwaters.

Headwaters was established in 2006 to breed ewes with high levels of fat to thrive in New Zealand's high country, Headwaters has around fifty farmer shareholders with approximately 250,000 breeding ewes. which involves supplying lambs to Alliance Group under the Lumina Lamb brand. (<https://headwaters.nz>)

This project will reference back to the Lumina brand and the majority of the respondents interviewed are connected to the Lumina programme in some way.

Below is a brief description of what the Lumina Lamb programme is about.

The Lumina family is made up of a team of passionate individuals united around a common goal. A team whose commitment is captured in every cut. In fact, Lumina's fine intramuscular micro-marbling (much like Wagyu) has never been seen before in lamb. And it comes with a signature milder taste, exceptional texture and tenderness, and versatility on the plate. It is – quite simply – a game-changing experience for chefs our customer and diners our consumer alike.



**The tale of the
world's best lamb.**

Lumina lambs are born and raised in the New Zealand hill and high country. Through rigorous standards and meticulous processes, Lumina lamb is 100% natural, free-range, grass-fed, and finished on specially cultivated chicory herb pastures. The meat itself is finely marbled and enriched with high levels of naturally occurring Omega-3 polyunsaturated fats. It's characterised by a mild aroma, light pink to pale red colour, and a tantalising, lighter-bodied texture.

As well as a host of excellent health attributes, Lumina lamb offers a delicate taste and tender texture. Its consistency and quality allow for total reliability and ease of preparation, and breath-taking, innovative dish creation.

That, in a nutshell, is the story of Lumina.

Further information can be found on the Lumina Lamb website <https://luminafarms.com>.

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To Cohort 49, you are an amazing group of people, the learning that I have gained from the members of the cohort has been a highlight of the programme. I look forward to watching the progress in your careers in the food and fibre sectors and gives me a lot of confidence in the sector moving forward with the talent of future leaders coming through.

Thank you to the individuals that I have interviewed and had discussions with regarding the topic of this report, your insight and knowledge have been insightful but also challenged my thinking, and it is much appreciated.

Finally, a big thank you to my family; Claire, Ben, and Penny for the support and encouragement while I have completed this programme, and the late nights and weekends when I have been working on this report.

Executive Summary

Disruption has become a constant condition of doing business. The businesses that are more likely to thrive are those that can not only respond by adapting to continuous change but also become the drivers of that change. The landscape of farming in New Zealand is evolving. Previously it has relied on low-cost competitive advantage. This has been achieved by either increasing productivity or reducing costs, but it is now becoming more difficult to maintain this. Adding value to the lamb that we produce is seen as a way to adapt to this change and is seen as a pathway forward for lamb producers.

This report seeks to understand some of the existing lamb-selling strategies and the mindset of lamb producers. It then examines how to change from a supply chain strategy to a value chain strategy and what that means for the farmer.

A literature review was undertaken to further understand the research topic. Nineteen semi-structured interviews were undertaken with participants either connected to the Lumina Lamb programme or with a deep understanding of value chains.

Some lamb producers have the same selling strategy that they have always employed whilst others are naturally curious and seeking opportunities, to increase returns and build resilience which leads them to be attracted to a customer-led value chain. This relates fundamentally to a farmer's mindset and the reason 'why'. Which was driven by an understanding of the customer, the chef. Lumina Farmers valued their connection with the chefs. The key to Lumina's success today is based on communication and transparency of the whole value chain and the ability for farmers to be part of a producer group with similar values.

Farmers valued the connection with other like-minded farmers, the collaboration and opportunity to learn from each other, were powerful, motivating and encouraged farmers to join the Lumina programme. To enable this change, the use of incentives in areas that need behavioural change that benefit the whole value chain would be the biggest challenge for growth.

Recommendations

This report outlines recommendations for companies trying to transition from producing a commodity product to a premium product. Some of these findings will be directed at the Lumina programme, but the concept will have relevance to other sectors and programmes.

To achieve the organisation's goals Lumina leaders, need to:

- 1 Actively seek to understand the farmer's current selling strategy and their mindset:**
When looking to bring new farmers into the Lumina programme, the initial focus of the discussion should be to get an understanding of the farmer's existing selling policies and why their motivations for choosing that strategy. The transition to supplying a premium product could require a change in values and mindset by the farmer.
- 2 Connect the farmer to the Customer:**
Build an attractive connection between Lumina farmers and their customer.
- 3 Utilise the power of the champions in the Lumina community:**
Encourage interaction amongst the farmers of the group, express the benefits of collaboration, to build on the strength that the programme already has.

Champion farmers as Lumina ambassadors, which will create an environment of excellence.

4 Develop a Road Map for farmers to understand the pathway into the Lumina programme:

Outline the different pathways on how to join the Lumina programme with clear systems in place that outline the requirements and identify the risks and opportunities. And expectations?

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1 Introduction.

New Zealand's economy is highly dependent on agri-food exports and is unique among the world's developed economies in that nearly two-thirds of exports come from the agricultural sector. (Lees & Nuthall, 2015). The red meat sector equated to nearly \$12 billion of in industry value, 92,000 New Zealand (full-time equivalent) jobs, and \$4.6 billion in household income, including direct and flow-on effects. (B&L and MIA, 2023)

New Zealand is renowned for its efficient farming system (Sim, 2022) and sheep and beef farmers have become some of the most productive in the world with our low-cost system (Lees & Nuthall, 2015), temperate climate, and willingness to invest in research, development, and extension, in the sector through programmes like the Red Meat Profit Partnership.

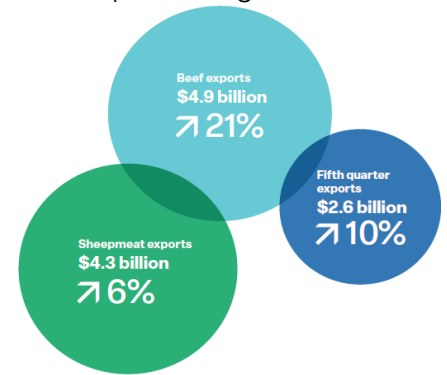
The landscape of farming in New Zealand is changing, previously it has relied on low-cost competitive advantage (Porter, 1998, as cited in Lees & Nuthall, 2015). As a sector, competitive advantage has been achieved by either increasing productivity or reducing costs when times have become challenging. It is now becoming more difficult to maintain this advantage in the face of rising production costs, and with on-farm inflation at a forty-year high of 16.3 percent (Beef + Lamb New Zealand Economic Service, 2023).

The other element that is challenging New Zealand's primary sector, is the pace and scale of regulation being asked of the sector at the moment. Disruption has become a constant condition of doing business. The businesses that are more likely to thrive are those that not only adapt to continuous change but also become the drivers of that change. (KPMG, 2021)

If New Zealand is to reach the primary sector export target of \$64 billion by 2025, as set by the Ministry for Primary Industries (Ministry for Primary Industries, 2013), supply chains need to produce high-value-added products that align closely with the needs of the consumer. In terms of establishing and maintaining relationships it is critical that firms seeking value do so, by working with others who share similar values. (McIntyre, et al., 2019)

Most agricultural publications are in agreement that adding value to our agricultural outputs is the key to a prosperous future (Lucci, et al., n.d.). The 'volume to value' mantra is not new (Sim, 2022), and this concept is often acknowledged as the pathway forward for the red meat sector. What is unclear is which part of the supply chain is going to lead this change.

This report seeks to understand some of the existing lamb-selling strategies and the mindset of lamb producers. The report then examines how to a change from a supply chain strategy to a value chain strategy and what that means for the farmer. The report will then make recommendations to make this transition easier for farmers in the Lumina programme. The findings of this report specifically seeks to assist the Lumina programme to grow, however the findings may well be applicable to other food and fibre businesses who are on their own value-add journey.



Source: (B&L and MIA, 2023)

2 Research Aim and Questions.

The purpose of the research was to understand the current selling behaviours of lamb producers and what changes are needed to transition from a supply chain to value chain and what impact does mindset have on this.

2.1 Research Aim

To offer insights into what changes are needed for lamb producers who produce commodity lamb to adapt and supply a value chain brand like Lumina lamb.

2.2 Research Questions

- 1) What change in mindset is needed when transitioning from a commodity lamb product to a premium value lamb product?
- 2) What impact does supplying a value chain have on the pastoral farm system?
- 3) What impact does the consumer have in a value chain and how does this impact the producer?

3 Methodology.

To provide context for this report a literature review and semi structure interviews were conducted.

3.1 Literature Review

To gain further insights into how producers could transition from their current selling strategy to supplying a value chain, using the literature which included government reports, scientific publications, and supply chain publications, a literature review was conducted. The literature review focused on four key themes.

- 1) Value chains versus Supply chains
- 2) Farm Systems
- 3) Consumer demands
- 4) Changing the Mindset

The findings from the literature review are used to base the questions for the semi-structured interviews to help clarify any learnings from the review.

3.2 Semi-Structured Interviews

A thematic analysis (Braun & Clarke, 2006) was used to identify patterns within the data which was collected through semi-structured interviews (19 in total). The reason for this was to allow for the ability for the discussion to evolve and flow in order to gain a deeper insight of the why. Interviews were transcribed in full. Once an understanding of the data had been reached, key themes were identified and summarised into one or two words. Three main groups of interviewees were identified.

- 1) Lone Star Farm Managers -4 Interviews conducted.
- 2) Existing Lumina Farmers -8 interviews conducted.
- 3) Farmers that have looked at the programme and decided not to join – 5 Interviews conducted.

These three groups were chosen to keep the focus of the report on the Lumina programme.

Two interviews were conducted with people who understood the wider Agri-sector and had in-depth knowledge of value chains and how they operate as part of an iterative process to test and validate ideas.

The author notes that the qualitative nature of the data allows for conclusions, but there is a limitation as it only relates to both one value chain programme (Lumina) and does not represent the wider agriculture sector.

4 Literature Review

4.1 Supply Chains versus Value Chains

“Market-oriented value chains are able to create, and capture added, value through a deep understanding of the final consumer, and a chain wide response to their needs to offer high-value products that are rare and difficult to imitate” (McIntyre, et al., 2019)

Definitions

Supply Chain: refers to the system and resources required to move a product or service from supplier to customer. (Cambridge Institute for Sustainability Leadership, n.d.)

Value Chain: builds on the supply chain concept to also consider the manner in which value is added along the chain, both to the product, service and the actors involved. (Cambridge Institute for Sustainability Leadership, n.d.)

Whilst sharing many qualities, the key difference between the two chains is the focal point. The supply chain focuses on the business needs and the value chain focuses on the customer or the consumer needs.

KPMG (2022) describes the peril for a producer of finding themselves in the grey zone between low-cost, industrialised farming, and the emerging modern, regenerative food productive system, which is the space where we have carved out a conformable niche. This statement is also relative for producers who are changing from a commodity producer to producing a premium product, as you lose the benefit of either option.

The below image **Figure 1** was designed by the Agribusiness and Economics Research Unit (AERU). The authors describe it as a value chain, where participating enterprises learn what is valued by their consumers, and that knowledge is passed back along the chain to processors and producers. The value chain also understands all the attributes in its production and distribution system that are valued by the final consumers, and that knowledge is passed forward along the chain to retailers and consumers.

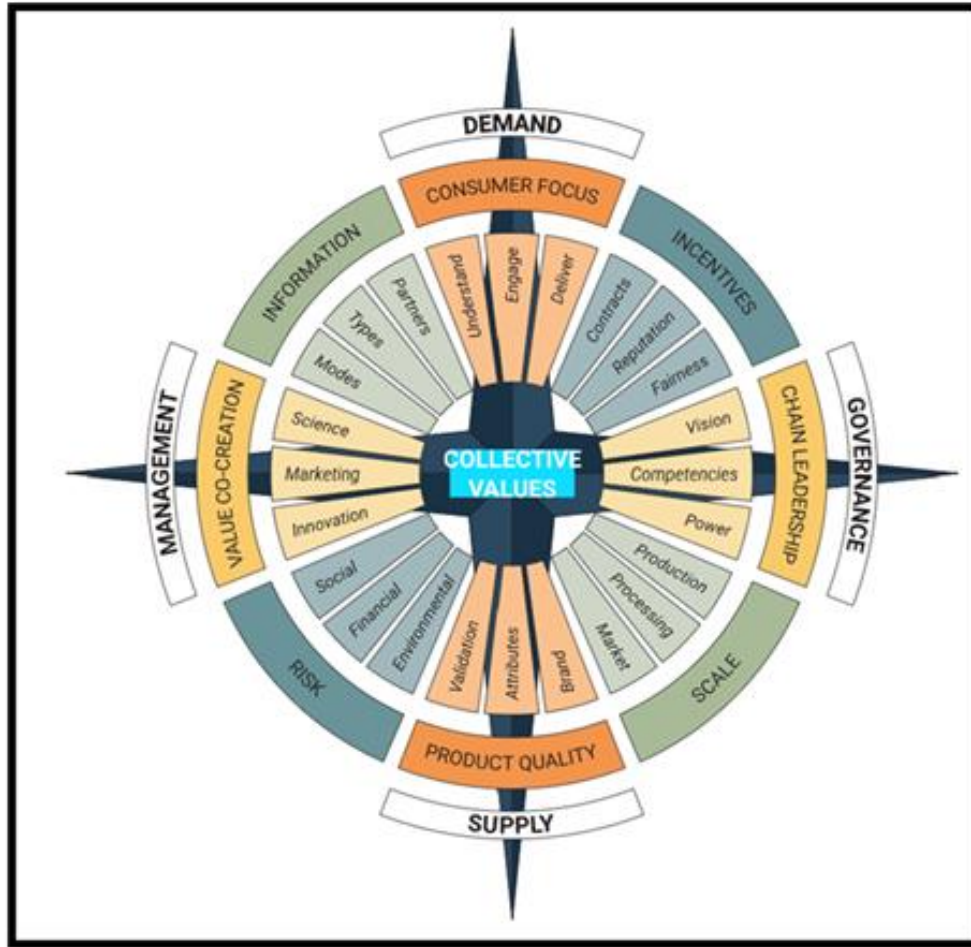


Figure 1: The AERU Value Chain Compass (Saunders, *The AERU Value Chain Compass*, 2022)

At the centre of the compass is Collective Values. 'Value' is used here in two senses.

- **Economic value**, measuring the value chain contribution to social well-being through providing goods and services at a price greater than the cost of production.
- **Social and cultural values**, reflecting norms and practices that are considered by a community to be an essential part of leading a good and meaningful life.

The strategy of having collective values at the centre of the compass can be broadly described by the findings of the case study completed by (McIntyre, et al., 2019). The authors explain that all value chains highlighted the importance of 'values' as opposed to 'value', while value is an important driver of chain activities, firms were largely concerned with developing relationships in which trust became implicit.

The research also confirmed the social capital perspective as these suppliers saw value in the relational resources that include common goals, mutual trust, communication, and social interaction. The suppliers benefited by having long-term stable relationships and connections to high-value customers (Lees & Nuthall, 2015)

Receiving a premium price for their product was important (Lees & Nuthall, 2015), but it is interesting to note that 'values' have just as much impact on the success of the value chain as value.

Trust is another key value that is important to the success of the value chain and is a key difference between a supply chain and value chain (O'Keefe, 1998) and identified four key areas that hinder trust in supply chains.

- 1) In commodity markets the price is fixed and the major issue is how it is divided through the supply chain, creating a win-lose game.
- 2) Auction system or supplied through a processor so producers do not get an insight into the customer's wants or needs or the opportunity to create relationships.
- 3) Supply chain management does not remove the volatile nature of prices and supply.
- 4) Interdependence is difficult to achieve owing to the size and power imbalance between the processor and producers.

With the compounding effect of all four factors for the average commodity lamb producer in New Zealand, it creates a breeding ground for mistrust. The impact of this is then a lack of desire for a commodity producer to collaborate within their supply chain. This mindset is commonly demonstrated when buying or selling as often the farmer is thinking within their farm gate and how they can maximise their situation to the potential detriment of the other party.

James Parson (Parsons, 2008) talks about a Collaborative Value Chain in his Nuffield paper, and he highlights the key aspects as being that each chain partner looks at the same information, this is demonstrated in **Figure 2**. The overlapping of the circles signifies transparent information sharing between all partners, including the cost of production, genetics, margins, inventory management, and consumer preferences.

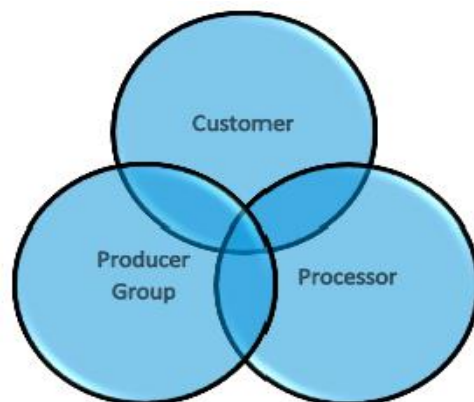


Figure 2: Collaborative Value Chain (Parsons 2008)

Lumina Lamb (Davidson, n.d.) also seek to explain below the difference between the traditional supply chain comparative to the Lumina lamb Value chain. The diagram at **Figure 3** highlights the importance of the provenance story and the link between the producer and the customer which enables that connection. This will be explained in more detail in section 4.4. The other key element of this value chain, as highlighted by Lumina's diagram below is that the value created at the market is transferred directly back to the producer the farmer.

The Lumina Value Chain

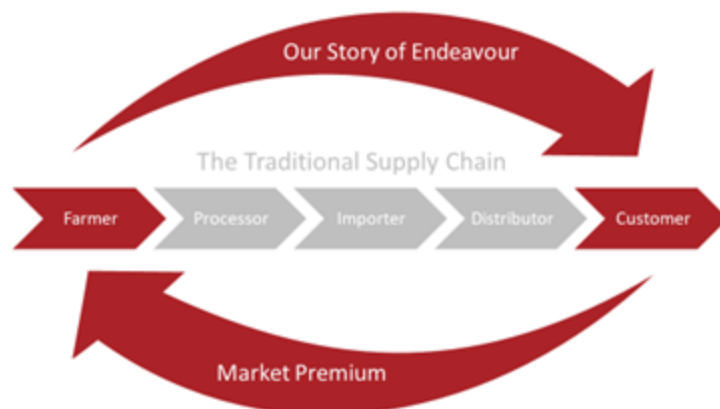


Figure 3: Lumina Value Chain (Davidson, n.d.)

Lumina's value chain highlights the importance of transparency across all partners within the chain, which aligns to James Parson's (2008) observations on the importance of the underpinning of trust when the whole chain is visible to all participants.

4.2 Farm systems -The profile of lamb producers.

"The majority don't like change and are happy sticking with the status quo, but without innovating and changing, we risk being left behind in a fast-paced world." (Mclauchlan, 2020)

Farming businesses across New Zealand have a wide range of different selling strategies when looking to market the product that they produce. It is important to investigate the current system to inform an understanding of what needs to change, in order to produce a value-added product.

Bensemman & Shadbolt (2015) created five categories for marketing strategies of producers. These categories are summed up below. The percentage of each group is outlined as well.

High Committers: 18%

- 1) Are conscientious and are the marketing strategy most interested in what is going on in the consumer market.
- 2) Able to meet tighter specifications in terms of pricing and delivery.
- 3) Selling decisions are an important part of their business strategy.
- 4) Are willing to lose some control of the selling process to be part of the bigger picture of delivering product to market.
- 5) Place a higher value on market information, producer groups, and technology for feedback.

Low Committers: 27%

- 1) Have less desire to be involved in market-oriented activities but commit to decreasing uncertainty and standardise selling decisions.
- 2) More likely to commit to low financial incentives, due to non-pecuniary benefits commitment provides.
- 3) Trusting relationships are important, so are more influenced by the buyer.

Sometimes Committers: 17%

- 1) More likely to commit under a fixed price system than other committers.
- 2) Price certainty is their marketing strategy rather than guaranteed processing space.
- 3) Operate a farming system that is not pressured by processing space.
- 4) This is the group that after a season of volatile or low prices, a proportion of this group would stop committing.

Switchers: 19%

- 1) Are characterised by their focus on trading.
- 2) This relates to attempting to maximise returns by buying and selling at certain times based on market conditions.
- 3) This desire for flexibility in sales channels is an inherent difference in selling strategies.
- 4) The ability to have full control and evaluate different selling channels is a pivotal part of this marketing strategy.
- 5) Have a higher level of bargaining power and influence in selling decisions.
- 6) They have opportunistic behaviour and have greater information than other parties.
- 7) They require the highest financial incentive to commit and the preference for trading is likely to change for smaller financial incentives.
- 8) They place the most value on the highest price, over convenience, security, and service.

Non-Switchers: 19%

- 1) Are characterised by not committing to one company yet having passive involvement in their selling decisions.
- 2) The producers seem to be complacent in their selling decisions and prefer another party to take care of selling arrangements for them.
- 3) They are satisfied with their current selling strategy and have little desire to change.
- 4) They prefer not to have to make the decision themselves but rely on the service supplied by the meat company.
- 5) Generally, don't like to be involved in selling decisions and commitment would increase the burden of selling decisions and potentially impact their production activities.

The categories are summed up in the Figure below.

	Commit	Non Commit
Active	High Committer	Switcher
Passive	Low Committer	Non Switcher

Figure 4: Marketing Strategy Matrix (Bensemann & Shadbolt, 2015)

When considering these five types of selling strategies by Bensemann and Shadbolt's (2015) work, caution must be applied to not look at this concept in isolation, but rather adopting a holistic view of the whole farming system. It is likely that the fundamental mindset and selling strategy of the farmer would be the same across their farming system.

The group that already has the business strategy and mindset to supply a premium product is the High Committers (HC). These farmers already show the values and strategy that would support supplying a premium brand. They also have a long-term perspective and want to ensure their business can adapt to future challenges (Lees & Nuthall, 2015) and are motivated by setting goals and forming relationships.

These farmers also have a farm system that could adapt to produce high-quality products with land and climate resources which enabled production flexibility with the combination of a high level of Farm Management ability (Lees & Nuthall, 2015)

The Low Committers (LC) and Sometime committers (SC) are potential farmers that could have the capabilities and selling strategy to supply. The LCs are inherently passive sellers and value support and guidance which will enable them to build trust in the relationship. A common issue with these suppliers was the reduced flexibility in delivery timing and quality (Lees & Nuthall, 2015)

The LC and SC would suit supplying a premium product as they value the relationship and trust, and these are key values of a value chain. They would however need more support and guidance than the HC to foster that relationship.

The Switchers also known as the "Sunday traders", have a different selling strategy and values which do not align to supplying a premium product. This group of farmers are active in the market, flexible, and are actively looking for the next opportunity to increase their returns and do not value loyalty in their current relationship.

The Non-Switcher (NS) are non-committal and are passive in their selling decisions and it is questionable whether they are sufficiently motivated for the commitment to supply a premium product.

With a better understanding of the mindset and strategy around some of the selling behaviours of producers. The next step is to look at how incentives could influence the selling behaviours of some of these categories.

(Parsons, 2008) discussed that when we look at many of our traditional commodity supply chains too often the incentives are in the wrong places and create the wrong kind of behavior. People always work the system to get the maximum benefit for themselves. (Parsons, 2008).

*“The key is to put the right incentives in the right places to get the right kind of behavior”
– John Absolom (Parsons, 2008)*

A similar concept was also discussed by (Craig, 2015) that if an industry is to position itself as a premium protein, it should embrace transformational institutional change through well placed incentives. These incentives can develop a new culture, which has evolved from the existing systems.

It is inherent in human nature, and lamb producers are no different that people will always seek to understand the system and figure out how to maximise the benefit for themselves.

Most producers already value and trust their relationships with trusted advisers, for example Fertiliser Representatives, Stock Agents, Farm Consultants, and others. Mclauchlan (2020) raised the powerful notion of a producer promoting the consumer into a trusted advisor status and the dividends that it could reap.

4.3 Consumer Demands

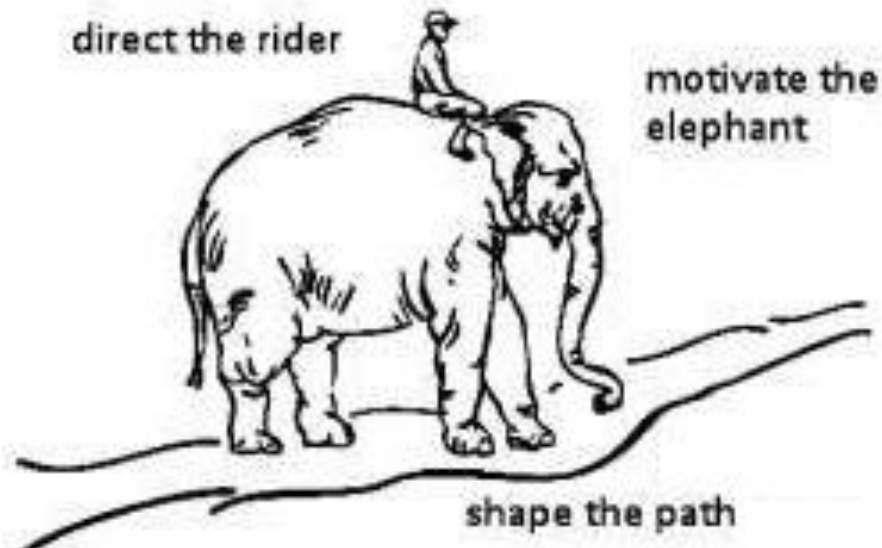
“The world is changing. Consumers are well informed; they are interested to know how their food was produced and by whom”. – Hon Damien O'Connor (KPMG, 2022)

The New Zealand food and fibre sector faces a consumer with changing expectations (Mclauchlan, 2020). With the advent of technology and social media the consumer has inadvertently moved a lot closer to the producer, with a desire to understand how their food is produced, and by whom. And the consumer is seeking quantification of this information and a producer's assertions.

As discussed in section 4.1, when changing to a value chain from a supply chain the consumer moves a lot closer, and the chain becomes customer lead rather than producer or retailer driven. This allows the producer to truly understand what the consumer needs and how they want it produced. (Mclauchlan, 2020). This concept requires a big shift in mindset for a lot of producers.

“To create value for the customer, you need to understand who they are and what is their problem” – Rennie Davidson Chairperson High Health Alliance

This concept is explained well by the elephant and Rider analogy cited in Mclauchlan's (2020) Nuffield paper and developed by Psychologist Jonathan Haidt, (Haidt J. , 2006) This explains the importance of emotional connection to change.



"Perched atop the Elephant, the Rider holds the reins and seems to be the leader. But the Rider's control is precarious because the Rider is so small relative to the Elephant. Anytime the six-ton Elephant and the Rider disagree about which direction to go, the Rider is going to lose. He's completely overmatched."- (Heath & Heath, 2010)

The authors (Heath & Heath, 2010) go on to explain the rider and elephant metaphor where the Rider, our rational brain, tries to guide the Elephant, our emotional brain, down the path and toward a goal.

In order to achieve your goal, the author suggests three key aspects.

1) Direct the Rider.

Lead down the right path, sometimes the start is the hardest.
Rational information – facts, figures, explain the why.
Understanding the goal.

2) Motivate the Elephant.

Give them emotional connection, through building relationships and trust, getting an understanding of the personal side of the why.

3) Shape the path.

Break old habits and form new habits, make it as easy as possible to see and walk the path to change (Mclauchlan, 2020)

Using this analogy, adopting new ideas and behaviors is hard, if you understand the three key factors outlined above, it will become easier to keep producers on the right path.

This concept was evident in the case study that Nic Lees and Peter Nuthall (2015) completed and some of their findings on this topic are below. Farmers described how knowing who the customer was gave them a sense of satisfaction and assured them that they were adapting their farm system to customer demand; this reduced their perceived risk. Customer connection provided the farmer with the personal satisfaction of knowing their efforts to produce a high-quality product were appreciated and valued (Lees & Nuthall, 2015)

Customer connection was important as this provided valuable knowledge exchange and

learning. With a greater familiarity with the customer's needs. (Lees & Nuthall, 2015) This also creates value to the producer who has a system that is positioned to shift and respond to the consumer more quickly because it's not only familiar with the consumer, but is getting constant, current and direct feedback into their system.

4.4 Changing the Mindset

In this report so far, mindset has been mentioned numerous times. The mindset of the individual has a large bearing on the adaption of innovation (Mclauchlan, 2020), but to change it must firstly be understood.

Due to the large volume of literature based on mindset, this section of the report is focused on the work of Dr Carol Dweck which is most relevant to understanding mindsets of New Zealand lamb producers.

Dweck (2017) described and explained a theory of the open and closed mindset. According to Dweck, (2017) a fixed mindset is when people believe their basic qualities, like their intelligence or talent are simply fixed traits with no ability to change or develop. Alternatively, in a growth mindset, people believe that their most basic abilities can be developed through dedication and hard work – brains and talent are just the starting point for the journey.

Figure 5 below demonstrates a pathway on how to enhance the growth mindset and the way to approach challenging times or the way people perceive failure and adapt it into an opportunity to grow and learn.

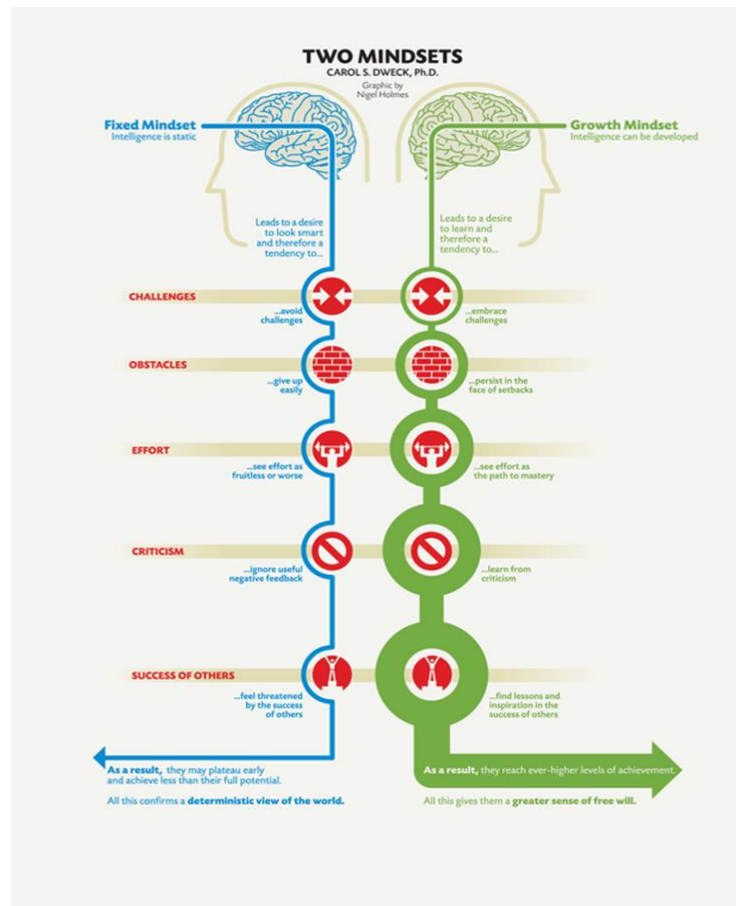


Figure 5: Two Mindsets (Dweck, n.d.)- Graphic by N. Holmes

Growth Mindset	Fixed Mindset
Embrace challenges.	Avoid challenges.
Persist in the face of setbacks.	Give up easily.
See effort in the path of mastery.	See effort as fruitless or worse.
Learn from criticism.	Ignore useful negative feedback.
Find lessons and inspiration in the success of others.	Feel threatened by the success of others.

(Dweck, 2017)

"Mindset change is not about picking up a few pointers here and there. It's about seeing things in a new way. When people...change to a growth mindset, they change from a judge-and-be-judged framework to a learn-and-help-learn framework. Their commitment is to growth, and growth takes plenty of time, effort, and mutual support."
(Dweck, 2017)

Dweck (2017) undertook comprehensive research to understand the relationship between mindset and the way people face different situations. This highlights the notion that in order to innovate, it is critical to firstly understand the current farmer's mindset and then encourage the growth mindset for farmers to make changes, adapt, and regain trust within the sector. The traditional way of thinking can hinder the adoption of innovation.

Combining Dweck's mindset model with the Diffusion of Innovation model described below helps with the understanding of how to change behaviours and encourage adoption.

The model was developed in 1962 by E.M Rogers, the Diffusion of Innovation originated in the communication field to explain how, over time, an idea or product gains momentum and diffuses (or spreads) through a specific population or social system.

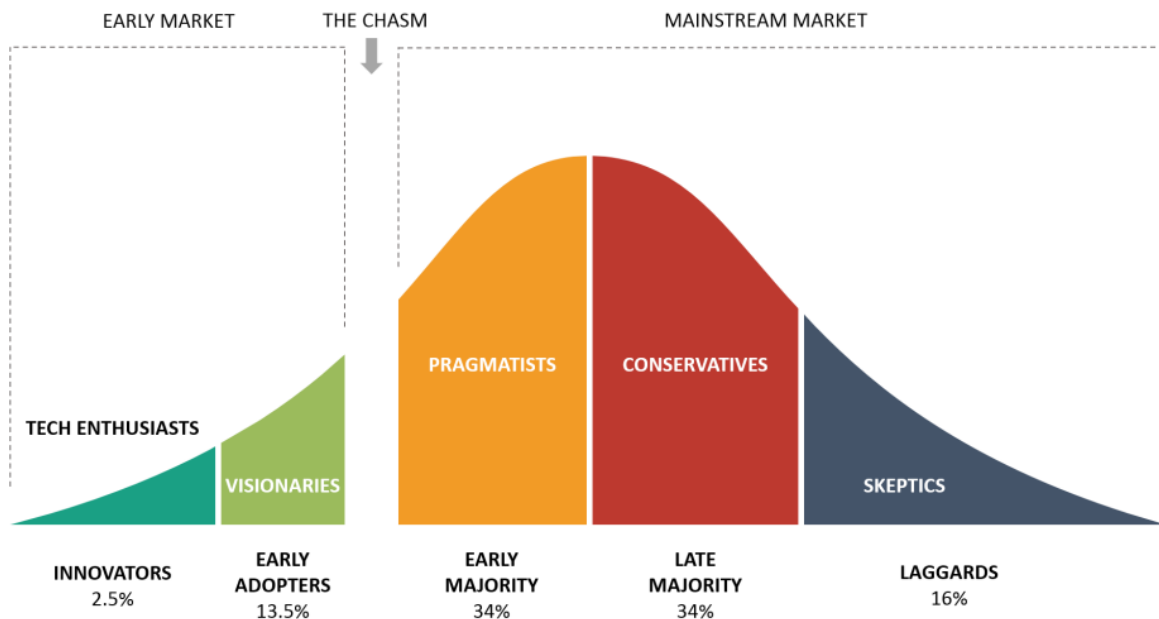


Figure 6: Diffusion of Innovation (DOI) Theory, developed by E.M Rodgers in 1962, adapted by (Moore, 1991)

The five categories of adopters are described below (Mclauchlan, 2020)

Innovators:

Innovators are willing to take risks, have the highest social status, have financial liquidity, are social, and have the closest contact to scientific sources and interaction with other innovators. Their risk tolerance allows them to adopt technologies that may ultimately fail. Financial resources help absorb these failures.

Early Adopters:

These individuals have the highest degree of opinion leadership among the adopter categories. Early adopters have a higher social status, financial liquidity, and advanced education and are more socially forward than late adopters. They are more discreet in adoption choices than innovators. They use a judicious choice of adoption to help them maintain a central communication position.

Early Majority:

They adopt an innovation after a varying degree of time which is significantly longer than the innovators and early adopters. The early Majority have above-average social status, contact with early adopters, and seldom hold positions of opinion leadership in a system. However, they are driven by a strong sense of practicality, they want to see well-established references before investing substantially.

Late Majority:

They adopt an innovation after the average participant. These individuals approach an innovation with a high degree of skepticism after the majority of society has adopted the innovation. The late Majority are typically skeptical

about an innovation, have below average social status, little financial liquidity, are in contact with others in the late majority and early majority, and have little leadership.

Laggards:

They are the last to adopt an innovation. Unlike previous categories, individuals in this category show little to no opinion leadership. These individuals typically have an aversion to change agents. Laggards typically tend to be focused on "traditions," lowest social status, lowest financial liquidity, oldest among adopters, and in contact with only family and close friends.

Moore (1991) the author of Crossing the Chasm also adds another aspect to the diffusion model, The Chasm which sits between the Early Adopters and the Early Majority. This is described by (Insights, 2023), Since the leap from Early Adopters to the Early Majority means the transition from the Early Market to the Mainstream Market, crossing the chasm is of utmost importance to truly achieve market success. With this understanding of the different personality types, we have a better understanding of what is needed to lead change and the qualities and mindset needed to supply a premium product and to adjust the way to influence through each stage of adoption. The opportunity here for Lumina Lamb is to use Lumina ambassadors or champions to exhibit success, which will encourage more farmers across the chasm faster, but also adapt the messaging to suit each stage.

5 Thematic Analysis

The 9 key themes from the thematic analysis were summarised visually in the below mind map. **Figure 7.** Each theme was broken down into sub-themes which related to the main themes, which could also be linked with the main nine themes. This was used to build insights into section 6.

This part of the report focuses specifically on Lumina lamb farmers.

5.1 Mind map showing the key themes from interviews.

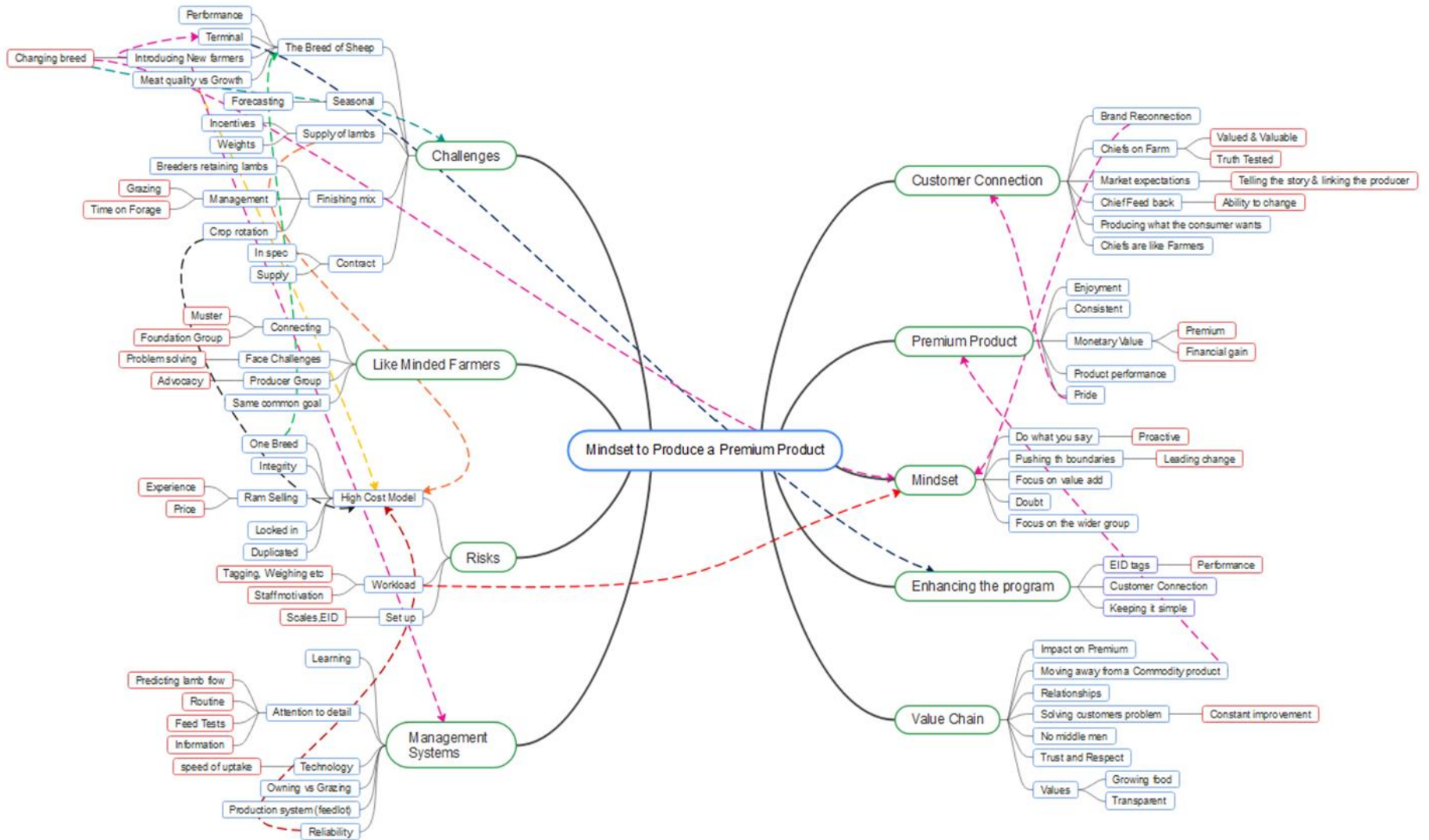


Figure 7: A mind map showing the key themes generated from semi-structured interviews.

6 Findings and Discussion

The findings and discussion section is an opportunity to evaluate the insights gained in the literature review and compare with the experiences and views of the participants of the interviews.

6.1 Customer Connection with the Farmer

Within the Lumina programme, the chef is referred to as the customer and the consumer are the people consuming the lamb product. In the Lumina programme the chef has a really important and significant role linking the consumer with the product which enables the understanding of the provenance story and the 'why' that sits behind the product. As the consumer will buy your product because of the why. (Sinek, n.d.)

The customer connection was a big driver for the majority farmers interviewed; they valued having that connection with the chefs. This was a big driver in why they were involved in the Lumina programme.

"If we can learn to become food producers and produce some of the best food in the world, then I think our mindset as farmers will constantly keep changing and, for the better because suddenly we are all about what the customer wants." (Farmer)

The ability to get regular feedback from some of the best chefs in the world was extremely valuable. To gain insight into how lamb is cooked, presented, and enjoyed was invaluable not only to the farmers, but also for the farm employees who were responsible for rearing the animals. It illustrated to the employees a good understanding of the "why and how their contribution created to the Lumina product's success."

It also acted as a positive and timely feedback mechanism, in giving the farmers an understanding of any adjustments that needed to be made to on farm practices. Conversely, chefs at the other end of the value chain are given an opportunity to see and understand the challenges that producers of their product are facing firsthand.

"Farmers and Chefs have a lot in common, they are both passionate people". (Farmer)

Farmers valued the passion the chefs had for the product and the way they treated it with such care. This care and passion helped with the connection through the value chain and cements the values and transparency for all participants. It also gave the farmer respondents a sense of pride at what had been achieved, as they followed the lamb's journey from on farm, through to the presentation of their premium product on a consumer's plate. The Lumina farmer respondents identified that all participants were working hard in their respective stage of the value chain to provide this product for the consumer to enjoy.

6.2 The value for farmers in producing a premium product.

"I think that for me that's massive because suddenly we've got an added value product that's driving a return for us, but along with that, we're suddenly able to lift our per hectare performance quite markedly, and our individual animal performance quite markedly, which is that long term goal of having a sustainable sheep and beef system". (Farmer)

The desire to create a farming system that can drive a return for sheep and beef farming into the future was a key factor in why farmers wanted to produce a premium product. It also allowed the farmer respondents to extract as much value out of the market that they could, for the product that they spent considerable time, effort, and cost in producing.

"I just like the community of people and the marketing and getting away from commodity because there is no future in staying commodity. Look where it has taken us with wool. Like yeah, so they're adding value and the market story and how they're promoting it and all the teamwork you get a feeling that you're not operating on your own anymore, you're sort of part of the community, and everyone's got the same goal, that is to do the best you can, grow the best product for the best outcomes". (Farmer)

The Lumina farmer respondents had a strong focus on producing a quality product that had the opportunity to remove them from the commodity system. The Lumina farmers viewed it as insurance against the commodity cycle if the product could hold its price point in the market.

"We're creating this quality product and we know we can pull it off. It is pretty cool to be a part of." (Stock Manager)

The enjoyment factor of producing a product that you had a connection through the value chain was a big motivating factor for most farmers interviewed. This links to section 6.1. The connection to the customer, which demonstrates to the farmer how the customer uses their product and creates a strong sense of pride. This connection enables the provenance story and the 'why' that sits behind the product to be transparent and validated. From a paddock on a farm in New Zealand, to sitting in a restaurant in London there is a clear understanding and appreciation of each end of the value chain.

6.3 The Value Chain

It was evident through the discussion with farmers that the most important aspect of the value chain was having similar values, as highlighted in section 4.1.

"What the costs are, who is incurring those costs, we understand what the returns are in the market, and we understand who's getting what, through our profit distribution. You know, I mean, that is massive, you know, there's very few others that have got that level of transparency". (Farmer)

The values of the value chain are communicated repeatedly, so all parties have a good understanding of what is expected. Transparency is a key value that has been identified to make sure that everyone along the value chain knows what is always happening. Respondents had identified that it had been testing at times and that the value relationship between partners is a relationship that needs to be constantly worked on for success.

"The connection is important. And in just being connected right through a transparent value chain, so you know our connection with the processor is massive, and as I said before, it's just being part of a group of farmers who are focused on the future and focused on growing food, rather than just another commodity product". (Farmer)

Mutual trust and honest communication were also critical as it reduced the risk associated with opportunistic behavior and enabled them to adapt more quickly to changing market conditions and consumer demands (Lees & Nuthall, 2015)

"I think there are some farmers that definitely get it, I've got to compromise, and I've got to give up stuff and make stuff work to make it all happen for the benefit of the whole group." (Farmer)

With the transparency through the value chain and the connection with the chefs, the farmer understood that any adjustments that they had to make to their farming system were in line with customer demand, rather than it being ideological, or nonsensical. Indeed, Lumina farmers were clear that there is purpose for the change.

6.4 The value of mindset

Fundamentally value chains are either attractive to the farmer or not. Interested parties are strongly attracted to the notion of what financially can be derived from the premium product space. This relates to section 4.2 on selling strategies.

"If I think 20 or 30 years down the track to the next generation, unless we change how we're farming, and we change how we are producing our food and driving a better return for sheep and beef farmers - it's got a pretty bleak outlook." (Farmer)

Compromise is still the biggest mindset to change, as farmers need to look beyond their farm gate, and consider the decisions that they make on their farm, and the subsequent impact their decision will this have on the wider programme and Lumina community. Including those decisions which could positively impact everyone.

"Over the last six months, the pressure has come on in terms of lower returns, higher costs, crazy interest rates, and we saw a lot of farmers react back to their old habits of just looking at their toes. Just thinking about today becoming very short-term focused. Suddenly, every bit of investment they were making in the programme seemed like a cost they didn't need, which is an understandable reaction. But I think it's a big mindset change. And when you have got 100 years or 150 years of commodity farming ingrained in us as farmers, and often over generations and you've got the older generation you know, a lot of us have got, especially on those family-owned farms." (Farmer)

As mentioned in section 6.1 the connection with the customer has a lasting influence on purpose. In difficult times, when faced with mounting challenges, the Lumina farmer respondents cited that they could center themselves on their purpose, or the broader why, which keeps them successfully focused on their values pathway.

6.5 Like-Minded Farmers

It was evident that a lot of the farmers that were interviewed, enjoy the collaboration of being involved in a producer group community with common goals. By nature, farmers work alone for large periods, and so are surprised and encouraged by the Lumina community mentality with its customer focused centric.

"One is that it keeps you motivated and keeps you focused because you are talking to farmers, who are focused on the market, and they're not focused on what the government is doing. I mean, we don't talk about rules and regulations, we try and focus on the positives". (Farmer)

The willingness to learn and share information across the group was evident and powerful. This was evident with the information on individual farming operations on display and seen as an

opportunity to learn. The openness to discuss problems and issues, as the saying goes "A problem shared is a problem halved." Using the group to solve individual issues on the farm.

"Being involved in a community that is progressive thinkers, collaborative environment, all knowledge is shared across all farms." (Farm Manger)

This group of farmers, who are all quite positive about the future of farming, are the early adopters of the industry, which explains why they are focused on the opportunity and are willing to challenge and be challenged. It is predicted that as the next group of farmers join the Lumina programme, this group will be a lot more business-focused, as they will be residing in the early majority as explained in section 4.4 by the Diffusion of Innovation Theory.

"I think it's a collaborative environment. Everyone works together and you know, we've got social media apps where all farmers are on and you can ask a question and you know, you've got the CEO of Lone Star farms helping a farmer that's only just started". (Farm Manager)

The desire to create and acquire new knowledge resources was a key characteristic of Lumina suppliers. They valued collaboration, which enabled the exchange of information and ideas with other capable and innovative farmers. (Lees & Nuthall, 2015)

6.6 Management Systems

"It depends on how your system is set up and what sort of mindset you've had around finishing lambs previously like we've always been. We've always been intensive, so we've always weighed our lambs anyway before they go to slaughter. I think the guys that get the stock agent come in and he puts their hand on them, it is more work." (Farmer)

Some Lumina farmer respondents felt that they performed better than average suppliers and had the capability and resources to produce a high-quality product to tighter specifications and therefore, wanted to receive a reward for this. (Lees & Nuthall, 2015)

"But what we found out pretty quickly as we had a pretty crap Finishing System we were pretty good at breeding but our finishing was just crap when I look back, and in so becoming part of the Lumina programme focused in on really driving our finishing business because suddenly we were under the spotlight to produce so many lambs every year and we were collecting a whole bunch of data and using that data to understand what we're good at and what we weren't good at" (Farmer)

The desire for consistent improvement was a key theme that repeatedly appeared with the Lumina farmer respondents. It was evident that majority of the farmer respondent's attention to detail had improved, as they had seen the benefit of using data, this had also flowed across into other parts of their farming operation. Respondents cited that there was also a flow on impact to the properties with staff.

"We're all using the same genetics and we're all growing our lambs on the same finishing forage and, you know, suddenly we're going to have the power of this data is untapped at the moment and that's just particularly focused for Headwaters, how we unlock the power of that data in a way that farmers can use that and really drive the performance of their farming business". (Farmer)

The change in mindset on how farmers run their system and the expectations in their performance with the data provided, enhanced the ability to plan and structure their system to make it a repeatable process (as possible) within a biological system.

6.7 Challenges

One key challenge identified by farmers with the expansion of the Lumina programme is the Headwaters Breed. With only the progeny from the Headwaters breed allowed to supply the programme. It means they would have to change breeds which is one of the major decisions that a farmer has to make. It creates uncertainty for a lot of farmers, for the perceived risk of the unknown as it's a big mindset shift for a lot of farmers.

The forage was another key challenge for most farmers especially for new farmers to the programme. As it required a new style of management within their farming system, with the introduction of the concept of thirty-five days on forage. Also, it was challenging growing new forage with climatic seasonality and the effect of composition of the forage which affects the growth rates of the lambs.

Lamb supply versus feed supply was also mismatched at certain times of the season which was challenging for farmers to manage. Convincing farmers to change their system and behaviours to help solve this issue is along the same lines as what Parsons (2008) in section 4.2 mentioned about using incentives to change behaviours. This also links back to section 6.4 with the mention of farmers looking beyond their farm gate for the benefit of the whole Lumina community.

6.8 Risks

There is a perception amongst New Zealand lamb producers that supplying a premium brand creates additional cost compared with supplying a commodity product and most farmers agreed with this to some extent. One farmer however disagreed and said it depends on the mindset that you have had employed previously to finishing lambs. As some systems are perceived as complicated whereas other farmers may not perceive it as difficult. Again, this all traces back to the mindset of the farmer. Some farmers reported very little difference in workload, and they could see the value in what they were doing.

"I don't think it's perceived to be a lot higher than what it is (workload). If you're organised and you got your mobs and you correct weight ranges and that sort of stuff, and you're not unnecessarily bringing them in for weighing just for the sake of it. I don't think it's that much more work". (Stock Manager)

The areas that added cost compared to a commodity system were extra labour, set-up cost with weigh scales, EID tags, EID readers, and the forage cost, this was a barrier to some farmers. The biggest cost difference was with the farmers who were running a basic finishing system. Farmers who had an intensive finishing system, had most of this infrastructure already in place and did not perceive as significant additional cost, and instead reported the benefits of the data they were gathering and able to use.

For farmers who preferred to be agile and adaptive, the concept of being contracted to a prescriptive programme was a significant barrier for adoption. In particular, the commitment to forage in the ground for eighteen months and adopting new sheep genetics into their system which lessened their individual autonomy within their farming system.

The mindset of the individual has a large bearing on their willingness to adapt to the value chain concept and the potential benefits it has for their business.

7 Conclusions

The purpose of this study was to understand the mindsets of New Zealand lamb producers and how to influence change and transition from producing a commodity product to a premium product.

Two key themes emerged in the discussion with farmers and from the work of Lees & Nuthall (2015) and Bensemann & Shadbolt (2015)

Firstly, was how much the farmer valued the connection with the customer; the chefs, and how much they were willing to adapt their farming system to accommodate the requirement of the customer when they could see the benefits of that change. Keeping the communication and transparency of the whole value chain flowing is key to fostering this trusted relationship.

Using this insight encourage the farmers who are undecided about being involved to interact with the chefs so that they can hear what is special about the product that they produce. This will lead them to get an understanding of the requirements and values of the programme and a deeper understanding of the 'why' and what is involved in being involved in a value chain.

Secondly, how the farmers enjoyed and valued the connection with other like-minded farmers, the collaboration and opportunity to learn from each other, were powerful and motivating and an incentive for farmers.

This will attract farmers of the right mindset and desire to be part of a group with the same values and ambition – crossing the chasm as discussed in section 4.4.

When considering the current selling strategies for lamb producers, some producers have the same strategy that they have always employed whilst others are naturally curious and seeking opportunities. This relates fundamentally to a farmer's mindset and their ability to look for and accept change, and their capacity to try something different that can increase their returns and make their farming business more resilient.

To enable this change, companies such as Lumina need to be able to articulate the 'why' so farmers can get an emotional understanding of what can be achieved with a clear pathway and well-articulated goals and returns outlined. To help enable this change, encourage the use of incentives in the areas that need behavioural change that work for the benefit of the whole value chain.

Some farmers struggled with the transition to a customer-led value chain and what the expectations were. This came down to how they accepted the change from a retailer lead supply-chain and their trust in the supply chain. This report proposes that it could be solved with a change in mindset and by providing more insight into the customer and their expectations.

However, the report accepts, that there will be a segment of lamb producers for whom due to either their farming system, or due to their mindset, the value chain proposition will not be acceptable or workable for them. This group will continue to farm commodity lamb in the manner that they have always done so.

8 Recommendations

“There is never one thing, one silver bullet, that will cause significant change. By understanding the problem, what success looks like, it helps build a pathway to success.”
– Ben Mclauchlan, Nuffield Scholar (Mclauchlan, 2020)

Based on the findings of this research project the following recommendations can be made for companies seeking to transition from producing a commodity product to a premium product. Some of these findings will be directed at the Lumina lamb programme, but the concept will have relevance to other sectors.

To achieve the organisation's goals Lumina leaders, need to:

1 Actively seek to understand the farmer's current selling strategy and their mindset:

When looking to bring new farmers into the programme, the initial focus of the discussion should be to get an understanding of the farmer's existing selling policies and why they choose to have that strategy. The transition to supplying a premium product could require a change in values and mindset. If they haven't shown these values previously, it is important to understand their motivation to change now.

2 Connect the farmer to the Customer:

Build an attractive connection between Farmers and their customers. Develop a pathway for farmers who 'are on the fence' about the Lumina programme through exposure to the customer.

3 Utilise the power of the champions in the Lumina community:

Encourage interaction amongst the farmers of the group, express the benefits of collaboration, using buddy systems, discussion groups to build on the strength that the programme already has. Champion farmers, using a communication strategy based on farmer ambassadors which will create an environment of excellence.

4 Develop a Road Map for farmers to understand the pathway into the Lumina programme:

Create a clear roadmap around the different pathways on how to join the Lumina programme. Having clear systems in place that outline the requirements of what is involved in the programme outlining the risks and opportunities.

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10 Appendix

Questions for Semi-Structured Interviews

Lone Star Farms Farm Managers

1. When you started working for LSF what were your initial thoughts about the Lumina programme?
 - a. How do you feel about the programme now?
 - b. Why has this changed?
2. How do you think that the Lumina programme has changed your farm management?
 - a. What are the key areas?
3. What impact is the Lumina programme having on other farm systems?
4. What are the main costs that are involved in being involved in the programme compared to straight commodity lambs?
5. If you could make some changes to the programme, what would they be?
6. If you left LSF, would you carry on being involved in the programme?
 - a. Reasons for this decision?
7. What are the advantages/disadvantages of being involved in the Headwaters/Lumina community?
 - a. What are the key areas that need to change?
8. What value do you place on being connected to the end consumer?

Lumina Farmers:

1. How long have you been involved?
2. What attracted you to first join the Lumina Lamb programme?
3. With the challenges you have had to face with the programme, what has kept you involved?
4. What do you value most from being a part of a producer group?
 - a. What are the advantages or disadvantages of being involved?
5. What do you see as the main benefits of belonging to the Lumina programme?
6. What do you see as the risks of being part of the Lumina programme?
7. What do you see as the main costs of belonging to the programme?
8. With the current system what do you think needs to change to get other farmers on board?
9. What are you most proud of with your current farm system around Lumina?
 - a. What are the key factors that make it successful?
 - b. What changes would you recommend to enhance the programme?

10. On your farm, how has the system evolved the longer you have been involved? (
11. How do you think that the Lumina programme has changed your farm management?
 - a. What are the key areas?
12. What are the advantages/disadvantages of being involved in the Headwaters/Lumina community?
 - a. What are the key areas that need to change?
13. What value do you place on being connected to the end consumer?

Non-Lumina Farmers:

1. How would you describe the Lumina programme?
2. Why did you initially look at the Lumina programme?
3. What were the main roadblocks stopping you from joining the Lumina Lamb programme?
4. What impact is pricing having on your decision?
5. What impact would price certainty have on your decision?
6. If there was a roadmap on how being involved in the Lumina programme or Headwater could improve production, and profitability, with details on how to change management to achieve this.
 - a. How would have this impacted your decision?
7. We often hear that there is too much work involved, what are your thoughts on this?
8. How much value would you place on having contact with the end consumer of the product that you produce?
 - a. Why?