

[Introduction to Zespri omitted from this exemplar]

Zespri's supply chain starts with research and development. Zespri have partnered with Plant and Food Research and have support from the MBIE in developing new strains of kiwifruit, increasing the qualities of the kiwifruit. This adds value to the kiwifruit because better quality kiwifruit can be sold for more in the market, and consumers will be more likely to purchase the kiwifruit if there are nutritional benefits. The Zespri supply chain then goes on to the orchard. Many of the innovations that occur here involve the kiwifruit vines and more laboratory testing. On the orchard, many growers will improve their crop through thinning, trunk girdling and stringing of their kiwifruit vines. The thinning of kiwifruit vines involves removing kiwifruit from the vines which have too many kiwifruit growing on them. This helps to improve the quality and size of the kiwifruit left growing on the vine. Trunk girdling is a process that has been seen to improve the taste of kiwifruit. It works by helping redirect the essential plant sugars into the growing fruit, rather than the roots where it normally goes without being girdled. The stringing of kiwifruit vines/canes helps to encourage the growth of new canes where the fruit can have more sun and better growth conditions resulting in a better fruit.

Some other processes the orchard goes through to help the value chain is testing of the fruit before harvest. When orchardists think their kiwifruit are ready to harvest, they will have a professional come to their orchard and collect samples. These samples are then taken to a laboratory and analysed. The lab analyses the size, quality and taste of the kiwifruit as well as conducting dry matter tests which help give an indication of how good the kiwifruit will be when they are ripe and getting sold. Another point in the harvest that is important for the value of kiwifruit is the selection of kiwifruit on the vines. When the pickers are collecting the kiwifruit, if any of the kiwifruit aren't at a very good size, they will leave them to keep growing and will harvest them later. This adds value because it means that only the kiwifruit that are a decent size will make it to shops.

The Zespri value chain then goes through a logistics stage when the fruit are transported from the orchard to the packhouse. In this stage there are very few innovations that can occur. The main thing that is happening here is smarter loading. Maximising the amount of kiwifruit being transported at once, without overloading the truck. This reduces the cost of transporting and help reduce carbon emissions from unnecessary travelling. The next stage in the Zespri value chain is at the packhouse. There are many important stages in the packhouse that add value. These stages include the grading, packing and storage of the kiwifruit. The first stage that occurs here is grading. When the kiwifruit first arrives at the packhouse they are graded with a set of regulations set by Zespri. Zespri regularly sends auditors to packhouses to check that these regulations are being followed. Grading the kiwifruit ensures that there is similar quality fruit being packed together and ensures that there are no bad quality kiwifruit making it into the market. This helps to add value as there will only be good quality kiwifruit making it into the market and consumers can't be put off by bad kiwifruit as there shouldn't be any.

In the packing stage there are a couple of things that occur here to add value to the kiwifruit. The first thing is the eco-friendly packaging that is being used. Zespri are using packaging that can be reused and recycled. They also have a water-based sticker on the fruit that can be easily degraded with the skin when it is thrown away. There is also a lot of research being done into more eco-friendly packaging and using biological waste-based plastics. This adds value to the kiwifruit as the consumer is looking for a product that doesn't have a huge impact on the environment. By making organic packaging or recyclable and degradable packaging Zespri are appealing to the consumers, increasing their market share.

Zespri use a reliable refrigerating system that is energy efficient. This keeps the kiwifruit in a good condition while in storage without wasting energy. This adds value in the same way organic packaging does, there is a lower impact on the environment with a more energy efficient refrigerating system and therefore appeals more in the market. When the kiwifruit is being transported from packhouses to the stores where they are being sold there are some processes that occur. One of these is using a direct shipping route when exporting. This minimises the time spent traveling and reduces the impact of the ships on the environment as they are spending less time on water. Another thing that is happening in both local and exporting logistics is using smarter loading. The trucks and ships are having their storage capacities maximised without being overloaded. Both are adding value as there is a lower impact on the environment, and less carbon emissions and will therefore appeal to the market. A higher appeal pulls in more consumers and value increases.

[Marketing section omitted from this exemplar]

One innovation that has occurred within the orchard and laboratory tests stage is creating the sungold kiwifruit variety. Kiwifruit are nutritious fruits with high levels of vitamin C. They are also a good source of dietary fibre, actinidin and potassium. All these nutrients combine to make Zespri kiwifruit have a higher nutrient density than most fruits. sungold kiwifruit have all these nutrients in higher levels and more. A sungold kiwifruit has 76.2 mg more vitamin C than standard green kiwifruit. It also has higher quantities of minerals like potassium, sodium and iron and has new minerals that green kiwifruit doesn't have like magnesium. All these extras give the sungold kiwifruit variety a higher nutrient density than green kiwifruit and gives the consumer more health benefits than a standard green kiwifruit. These added nutrients help add more value to the kiwifruit because consumers are now

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more aware about what is in their foods and what is good for them. With Zespri advertising the added health benefits of the sungold kiwifruit they are going to get more consumers purchasing the sungold kiwifruit. Since this kiwifruit is the only one of its kind with all the health benefits then Zespri can set the market price for them. This adds value because Zespri will be getting more consumers purchasing their sungold variety, therefore increasing their market share. Zespri is controlling the market for this kiwifruit. This innovation meets the market's need for nutritious and wholesome food. Consumers want a food that is healthy and has nutrients that are known to help their body and make them feel good.

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Zespri is currently developing a red fleshed kiwifruit. This innovation is occurring in the research and development stage. It is proposed that this red kiwifruit will be popular in the Asian markets like China where red is a symbol for good luck. This red kiwifruit is being innovated in several ways, not just colour. They are trying to improve the health benefits through boosting the vitamin C levels, as well as trying to improve on the skin texture to make it better suited for 'eating on the go' and nicer to eat with skin on. This new red kiwifruit innovation is going to add value to the kiwifruit as it is going to be meeting more market needs, especially in a Chinese/Asian market. There is potential for a huge increase in sales of Zespri red kiwifruit in these markets, adding value to sales and profits for the company.

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Zespri's new partnership with MBIE means the government is investing about \$6-7 million into research and development for Zespri to produce new varieties of kiwifruit with added benefits. As well as assisting in the research and development of the new red kiwifruit, this funding will help other varieties be researched. The new varieties created are increasing the product line of Zespri and are giving the customer more options to choose from. This research into new varieties is going to create many opportunities for Zespri to add value and increase the profitability of their kiwifruit. Varieties with health and eating enjoyment advantages will be more appealing to different groups of people and with the correct marketing to these people Zespri's kiwifruit will have an increased value. The people that are wanting benefits from their purchases will be more willing to spend money on a product that meets their needs, the market needs. Someone that is getting what they want from a product will be willing to spend more money for that product and therefore the value of that product is increasing.

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Another innovation that occurs during the logistics stages (mainly exports) is finding ways of reducing carbon emissions to the environment. Carbon emissions are a big environmental issue currently and consumers are starting to become more and more aware of this. Zespri has acknowledged that they have a responsibility for reducing carbon emissions, so they have started working on ways of reducing these emissions. They are looking to add big wind sails to their ships, using ships more efficiently, and reusing organic waste as packaging. What Zespri are doing is they are starting to load and use ships more efficiently. The company is starting to use bigger ships that are more efficient and can carry more containers. Fewer ships crossing the ocean will mean there is a reduction in the carbon emissions from Zespri exports. This appeals to consumers who are wanting an environmentally sustainable product. Zespri's environmental strategies are likely to lead to consumers supporting Zespri and buying their kiwifruit. If other kiwifruit producers do not take any steps to help the environmental impact of their product then Zespri kiwifruit will appear to be a more sustainable and appealing option. Consumers don't want to buy a product that is having a negative impact on the environment. This innovation does not directly affect the value chain it more affects the consumers thoughts on how good Zespri are as a company. If they are a good company that thinks about other things than themselves like their environmental impact, then consumers will gain respect for the company and start buying from them or supporting them.

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One final innovation that is currently being worked on is the process of using kiwifruit as a flour. Zespri are currently looking at using kiwifruit as a flour. This kiwifruit flour would substitute in place of regular flour and gives additional benefits like being gluten free. This innovation is still being developed but when it is developed it will provide more income for Zespri. The consumers with specific health needs like being gluten free will start purchasing the product because it is better for them and some people may even purchase it as a substitute for regular flour as it may have additional health benefits. This will impact the value chain because there will be more value going into kiwifruit. If they can be used for special food like gluten free flours, then they will be highly sought after. If lots of people want them then prices may increase, and value of kiwifruit will increase.

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When Zespri meet certain market needs, they start to increase their market share and end up with a larger customer base. More customers that are willing to buy their products results in a larger number of sales for Zespri. More sales leads towards a bigger profit for Zespri. When Zespri create a product that has more benefits, the price of that product increases as consumers will be willing to pay more for a product that has extra benefits. This means there will be a similar number of sales at a higher price, so the profit of the product is increasing. This is increasing the value of Zespri's products.

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