

Student 6: High Not Achieved

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Crispy Chips [*brand and personal names changed for anonymity*] potato chips are a local product that are grown in the Canterbury region and processed in a factory where they are sliced, cooked and packaged. Crispy produce one product, plain salted potato chips (or crisps). The chips are distributed all around New Zealand and to Australia and Singapore.

[Description of the stages of the value chain for Crispy chips omitted from this exemplar.]

Potatoes are grown on a family owned farm which is managed by John ABC who controls the day to day running of the farm. Those potatoes are then transported to a factory which is overseen by John's daughter, Hine who is the general manager of Crispy potato chips. The factory was previously owned by XXXXXXXX. The ABC family was a supplier but when the factory was shut down, the ABCs took a risk and bought the factory setting up the Crispy brand. The farm owned by the ABC family is a 1150ha property located in the South Island. It has perfect soil for growing potatoes as it is free draining, with very few stones and is well irrigated. Through many trials of potato varieties John has narrowed it down to around five or six cultivars. These varieties produce the best colour, flavour and crunch that Crispy potato chips are known for.

The calendar of operations that the ABCs follow is well thought out to ensure the land is prepared to a high standard to produce great potatoes. In June-July the topsoil is worked which improves soil structure and aeration. This allows for the tubers once they are planted to grow as loose soils offer the least resistance for enlargement. From July to September soil testing is carried out to find out which nutrients are present and pH levels. This allows correct fertiliser or lime application is needed. In September the paddock is ploughed and ridged to prepare for planting in the same month. Late September through to October the plants start to emerge from the soil and are sprayed every 7 to 10 days to prevent the infestation of Psyllid. From November to February the crops are kept a close eye on to monitor moisture levels to irrigate when needed which allows the potatoes maximum growth. December is when the crops are very closely watched from pests prior to harvest. The early potato harvest occurs in January and the main potatoes are lifted from March to June to ensure markets can be filled all year round. From harvest the potatoes are transported to the Crispy factory where they are stored in a shed with a controlled environment which prevents the tubers from sprouting, this would make them unfit to be used for human consumption. They are then sent to a washing plant which removes dirt and stones that are in with the potatoes. An auger is used to transfer the potatoes to be peeled, they pass by a labourer who removes any imperfections and cuts larger potatoes in half. They are then sliced evenly, to ensure this standard is met the slices are checked and any that don't are removed. The sliced potatoes are then fed into the fryer containing a refined sunflower and canola oil mix. The potatoes are constantly turned to ensure even cooking for six minutes. A rotating drum transfers them to a conveyer belt which dries them and passes the chips past a colour sorter which removes any chips that are not fit for sale. After this the chips are checked again by an employee who removes any further chips that the machine missed. The next step is adding the flavour, then the chips are packaged at approximately 150 grams. From here the packaged chips are boxed and distributed New Zealand wide and for export.

Crispy Chips have created a great name for themselves through their innovation of making their chips gluten-free. Many chip brands that are sold in New Zealand contain gluten, so I consider that the Crispy brand has been very clever in creating and selling a gluten-free range of potato chips. According to Fresh Food News, in New Zealand over 226,000 people claim to follow a gluten-free lifestyle [*source cited*]. It is currently, one of the fastest growing food trends in New Zealand.

Crispy Chips produces potato chips that are suitable for a range of people that have dietary requirements. As the chips are the only product made in the factory, it is a gluten-free area so the ABCs can say with honesty that the ingredients used in their chips do not contain gluten. Most of Crispy's competitors sell chips that contain gluten because they add flavouring agents to their chips. These agents may contain wheat, rye, barley, and other grains. The fact that Crispy chips are gluten-free is an innovation for the business. The innovation occurs at the production and processing stages of the value chain.

1

The use of gluten-free ingredients in the production process adds value to the product as it allows for the Crispy brand to reach a wider market by making the chips available to more people who are allergic to gluten or have celiac disease. It also provides a point of difference when being compared to other chip brands. It is a great advantage when competing with other companies as the brand reaches a wider range of people meeting many customers' different needs. For example, people who do not follow a gluten-free diet may still buy and enjoy the Crispy product.

2

Gluten-free products can cost more than those with traces of gluten. The price of Crispy chips is very similar of those that contain gluten. The salt flavoured chips and the thin cut salted XXXXXXXX chips both cost \$1.99 which is cheaper than the sea salt YYYYYYYYYYYY brand which cost \$2.79 [source cited]. Therefore, they have a very similar price compared with other brands. Crispy Chips are the only one out of the three that are gluten-free.

Being gluten-free can be a tough challenge when trying to find foods that they can eat. Crispy sells its gluten-free and delicious chips to a wide range of consumers at a price that is affordable, even though gluten-free products usually cost more than those that contain gluten. The cost of being gluten-free would have been the most expensive when the business was researching and trialling which processes were best and cheapest to produce. However, the cost for going gluten-free decreased as the ingredients got refined.

In contrast to the disadvantage of costs to produce gluten-free chips an advantage of being gluten-free is reaching a greater market. By being gluten-free it allows the products produced to be expanded to reach a market that allows for people with gluten intolerance to be able to consume products that they otherwise would not be able to. It is seen as an advantage it reaches a wider range of people compared with other companies offering no gluten-free products. As it is a point of difference it will allow a Crispy Chips to make a higher profit as they can reach more people.

The media portrays many different ideas on which foods are best to ensure a long healthy life. Many people are going gluten-free not through dietary need but by choice instead. If this keeps continuing the market will demand products that meet these needs. Potato chips are not a necessary food group for everyday consumption, but Crispy Chips makes snacking easier for those with allergies. This can influence the way people perceive gluten-free products if their diet is restricted by choice. Live Science [source cited] said that many "If people who only eat foods that are inherently gluten-free, like fruits, vegetables, gluten-free whole grains, lean protein, healthy fats, they will have a healthy diet ... [but when] gluten-containing products are replaced with highly processed gluten-free foods you may in fact gain weight." But since chips are a snack food and are not a major food group required for healthy living, whether they are gluten-free or not is not a dietary implication as anyone can consume the chips.

In conclusion, the gluten-free innovation that the Crispy Chip company decided to take a risk on benefits the consumer and producers as it offers a product that can reach a wider market. Being gluten-free is one of the main innovations that causes an increase in not only the range of products available for those who are gluten-free but the profitability of the Crispy company as it provides a point of difference compared with other companies.