

Hectare Wild Artisan Cheese: Pricing and Price Elasticity Conundrum

Rupika Khanna

Indian Institute of Management Rohtak, India
Email: rupika[dot]khanna[at]iimrohtak[dot]ac[dot]in

Abstract

Hectare Wild, a family-run artisan cheese-making business confronts vagaries of the business environment when the government undertakes a series of fuel price hikes leading to a rise in petrol/diesel prices by 20 percent in a one year. The double whammy of crises of Covid-19 pandemic and petrol price hike presents a business scenario marked by declining sales and rising costs. Faced with the dilemma of a price rise, Mahesh, the business owner, seeks the help of his nephew Shri, a management consultant at DCG Limited. The case pushes the students to evaluate the pricing decision of this cheese firm and develop an appreciation for the price and revenue relationship contingent upon the price 'elasticity' of demand.

Key words: *fuel price hike, transportation, small business, demand.*

Introduction:

Sitting in his office overlooking the Nilgiri hills, Mahesh appeared a semblance of poise. Mahesh was the owner of a family-run business, Hectare Wild, a manufacturer of handmade natural-rind cheese. Located in Kallar, in the heart of the Nilgiris, Hectare Wild was a popular choice among its customers, who identified with the taste of the cheese made from export-grade milk from Holstein and Jersey cows. Further, an age-old experience of flavoring organic cheese had protected the company against competition from bigger, well-known brands such as Amul, Britannia, and Mother Dairy, whose focus lay on standardized cheese varieties. However, Hectare Wild continued to face fierce competition from other artisan cheesemakers such as Baskifoods, Mavafresh, and Keraki, which had gained customer attention in the last few years.

With growing consumer interest in cheese and cheese products, business performance remained thriving until a year back (**see Exhibit 1**). Before the company could even recover from the pandemic-led dip in sales, it received another jolt in the form of fuel price hike announced by the Government. Various logistics-related challenges, some of which were unique to the company

had raised the transportation spending by around 300% in the last year (see Exhibit 1). The situation did not seem likely to improve soon, raising question on the company's ability to sustain profits. As Mahesh contemplates raising prices of the products, it simultaneously had him concerned about customers' price sensitivity.

Mahesh's contacts in the executive council of a premiere economic think-tank had assured him that fuel prices would cool down soon. However, by mid-July 2021, diesel prices rose to ₹ 95.02 per litre, which profoundly impacted the company's cost of procuring milk and distributing cheese to various consumer markets. While rising fuel prices had impacted almost all dairy businesses, Hectare Wild's location in the mountains, where logistics was already challenging, made the situation even more critical for the business.

The Phone Call

One day, as Mahesh sat down to read his morning newspaper, his phone rang. His nephew, Shri, was back in town for an extended stay at their ancestral house. Shri, a young management consultant at DCG limited, was undoubtedly an overachiever for his age. He was happy to be home and his eager voice rang over the phone.

Shri: *"Morning, Mahesh. How are you? I am home and I was wondering if you are free this Thursday. We can plan a lunch together."*

Mahesh: *"Oh! I am grappling with some issues with my cheese business and may be busy with meetings that day. Why don't you stay with us over the weekend?"*

Shri: *"Oh, what sort of issues?"*

Mahesh was only too happy to share *"In the last few months, increasing logistic costs have created a hole in my pocket. I am, therefore, contemplating raising the price for my customers. However, with growing competition from other artisan shops, I am not sure how that will impact my sales."*

Shri: *"Can you compile your past sales data?"*

Mahesh thought for a moment and said *"Yes, I can ask my accountant."*

"In that case, it is a piece of a cake, Shri laughed. "I should be able to help you with the decision."

Mahesh: *"Well, what should I say?"* He knew he could not manage it alone.

Shri: *"You could say, thank you."*

Mahesh: *"All right, buddy, thank you."*

Shri: “ *Alright so I will come and pick up the files on Thursday morning. I will send you my analysis in a week’s time*”

Shri collected all the files from Mahesh’s house. Since Mahesh was tied up in his meetings, Shri could not meet him. However, Mahesh had provided him with all the previous data on sales, profitability, and prices that he could compile. Shri’s job was to analyze the pattern of cheese demand facing Hectare Wild and help Mahesh with pricing and revenue decisions.

Hectare Wild: The Context

Hectare Wild was founded in 1962 by Mahesh’s grandfather, who was the first person in the country to set up an indigenous cheese-making unit. He started with making and selling the Gouda cheese variety, which continues to be the company's legacy. Since Gouda represents a unique gourmet cheese variety, customers were often willing to pay more for it. Gradually, the business ventured into plain Mozzarella cheese, a standard type that found a place in most households (see **Exhibit 2**). However, sale of Mozzarella cheese was based on a pre-order basis. Mahesh had recently finished serving a fixed-price contract for a client. No new contracts to supply Mozzarella cheese had been made in the last six months. Located in the heart of the Nilgiris, Hectare Wild’s ancestral factory outlet was a tourist attraction for those visiting the region’s well-known holiday spots, including Coonoor. However, this location also posed some challenges to the business. For example, every 1 kilogram of cheese required about 10 litres of milk. Since milk is bulky and a highly perishable commodity, logistics always remained a key concern for Mahesh. Although the region had access to excellent quality transportation but the costs usually ran high due to the terrain.

However, since customers’ interest in cheese had continued to grow exponentially, the business remained thriving and had usually high profits over the last few years. However, by early 2020, Hectare Wild’s revenues started flattening out due to growing logistic problems in the region. While minor issues had always existed but the business was responding strongly to the rising logistics costs. A breakup of the costs of various items, including milk, non-milk ingredients, labour, freight, etc. is given in **Exhibit 1**.

Effect of the Covid-19 Pandemic

For months together, food supply chain in the area had been deeply impacted by the country wide lockdown to counter the the first wave of the coronavirus pandemic. Notably, the procurement

of milk, a critical raw material used in cheese making, posed many challenges. As milk is highly perishable and cannot be frozen like meat, or kept aside like grains, logistic issues were bound to hit dairy businesses harder than other agricultural commodities. Throughout the region, trucking companies responsible for hauling milk from dairy farms to food manufacturers were scrambling to gather enough drivers as most of them had migrated back to their native villages. However, some of these problems were resolved within a few months but Mahesh ended up with the transportation cost of milk escalating by more than 300% compared to the last year.

The structure of demand for cheese had also changed. However, some of these changes could be seen as new opportunities. For instance, since most consumers were home, the demand for cheese and other dairy products from small grocery stores and online markets by households remained strong. Instagram influencers posting videos of home-cooked food also played a role in keeping the household demand for cheese robust. However, the demand from local restaurants took a strong hit in the beginning as restaurants shut shop. With time as restaurants shifted to a home-delivery model the demand from them picked up again. *“Since customers are staying back home, our pizza sales have been robust”*, said Karthik, the owner of Pizza Hunt, a famous local pizza shop that procured cheese from Hectare Wild. A segment from where the sales had dipped drastically was daily travelers visiting the Hectare Wild factory outlet. The daily footfall at the factory outlet ranged between 300 to 500. Although small, this segment played a critical role in attracting first-time customers, many of whom helped strengthen the brand through word-of-mouth advertising.

Gathering his thoughts, Mahesh thought to himself, if the pandemic effect were to grow stronger in the coming months, sales would stand to decline. After going through some internal papers, he could gather that demand could dip by 20% until the following year.

Effect of Rising Fuel Prices since March 2020

As the pandemic started, the price of India's crude oil basket (COB) fell drastically from \$65.5 per barrel in December 2019 to \$19.9 per barrel in April 2020. After that, oil prices started increasing, first gradually and then at a rapid pace. By December 2020, COB reached \$49.8 per barrel until it returned to \$67 per barrel in May 2021. In the year 2020, average diesel and price prices rose by at least 20%. According to figures released by the petroleum ministry, the COB price was \$74.18 per barrel by June 25, 2021. Further, as state taxes and freight charges directly determine

fuel prices, there is always some variation across different states. By June 2021, many states saw petrol prices crossing the Rs. 100-a-litre mark putting high pressures on the costs of operating a dairy-based business.

Although crude price is a potent factor impacting the cost of fuel in India, the primary driver of the current fuel price hike is the tax/excise duty imposed by the government. For instance, as high as 53 percent of the retail price of a litre of diesel is composed of government taxes. The government of India increased the total central excise duty (basic excise duty, cesses, and surcharge) by ₹3 on petrol, effective from March 14, 2020. In a series of subsequent revisions between March, 2020 and June, 2021, taxes on petrol were hiked by ₹11.77 per litre and diesel by ₹13.47 per litre in the last year. It is said that the central government's total tax collection on diesel and petrol prices has jumped 300 % in a period of 6 years. Some economists justify the tax hike on the grounds that the government requires funds for its fiscal expansion programmes aimed at reviving the economic spirit in the country. While the impact of the early 2020 tax hike was felt marginally owing to lesser mobility during that period, the subsequent duty hikes impacted both households and businesses extremely hard. The direct impact of these tax hikes can be seen in the prices of agricultural goods, including milk, services such as logistics (freight), etc., and manufactured items, especially bulky goods that require spending on transportation.

Business environment vagaries had brought Hectare Wild's vulnerabilities to the surface. However, Mahesh has always been a fighter and knew that he must not lose focus to keep the business thriving. Should the price be increased? What if the company lost customers? What is the maximum revenue he can make at the revised price? Unsure of the answers to these questions, he borrowed the services of his nephew, a management consultant at DCG limited, who must present a set of solutions.

Shri's Email

A week later, Shri emailed Mahesh his opinion on the situations facing Hectare Wild. As soon as his phone beeped, Mahesh found himself squinting at the screen, anxiously waiting for Shri's prescription regarding the pricing decision. The email read as follows:

"Dear Mahesh

I have looked at the previous price and quantity data your accountant compiled for me. Regarding your dilemma about the price rise, I find that the answer to the same will depend on the price elasticity of demand. I have used the following formula to calculate the price elasticity:

$$\text{Price Elasticity } (P_E) = - \frac{\% \Delta \text{Quantity demanded}}{\% \Delta \text{Price per unit}}$$

*As per my estimation, the quantity and price relationship for your cheese would look something like this (see **Exhibit 3**).*

*Best Regards,
Shri”*

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Exhibits

Exhibit 1: Annual Income Statement (in Indian Rupees)

	Per unit (Rs.)	FY 2019-20	FY 2020-21
Total Sales	110	3785100	3004342
Total Cost		2116323	2206163
Non-dairy		245000	245000
Milk cost		1444000	1241840
Freight		146000	423000
Labour		204000	204000
Packaging		77323	77323
Advertising		13000	11000
Profit		1639105	813179

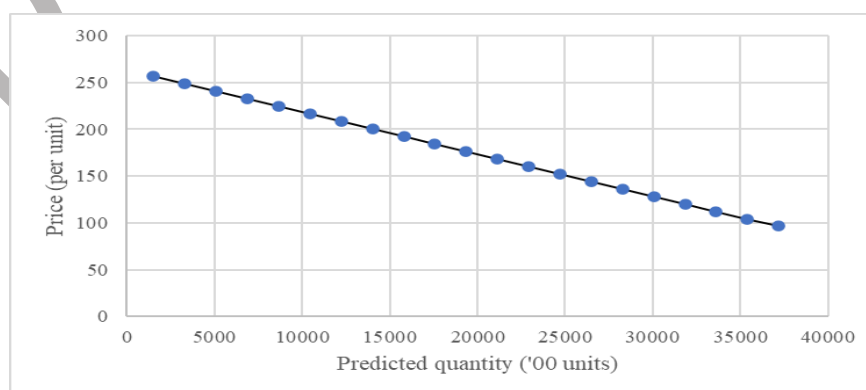
Note: Each unit is a standard pack of 200 grams of cheese

Exhibit 2: Products Manufactured by Hectare Wild

Product	Description
Mozzarella Cheese	Hectare Mozzarella is the fastest-selling unflavored cheese. This variety faces direct competition from renowned manufacturers such as Amul, Britannia, etc. However, since this is a standardized, non-gourmet variety of cheese, it attracts a large number of customers who are often price sensitive.
Caraway Seed Gouda Cheese	Hectare Gouda is a flavored, pale, yellow-colored Dutch cheese made from cow's milk that is cultured first and then heated until the whey leaves the curd. Among gourmet cheese lovers, this variety is unbeatable for its 'unique' taste and flavor. Last year, a picture of the Hectare Wild Gouda cheese was featured on the 'Tisca Travel' list as a favorite among traveling shoppers.

Exhibit 3: Demand curve estimated by Shri

Using the price and quantity data in Mahesh's file, Shri estimates a linear demand function with the following relationship between price and quantity data (the x-axis and y-axis on the figure are the predicted quantity demanded as per Shri's demand function and price, respectively)



References

- Fact.MR (2021). Processed Cheese Market to Hit US\$ 24 Bn in 2029, Slump in Demand from Commercial Users to Cause Glut During Covid-19 Crisis, Retrieved 1st July 2021 from <https://apnews.com/e47eda306d74b0ca79bd0688d14b73ac>
- Huffstutter, P. J. (2020). U.S. dairy farmers dump milk as pandemic upends food markets, Retrieved 5th July 2021 from <https://www.weforum.org/agenda/2020/04/dairy-milk-pandemic-supply-chains-coronavirus-covid19-pandemic>
- Jha, A. (2021). Number theory: Fuel prices continue to rise, relief unlikely soon, Retrieved 12th July 2021 from <https://www.hindustantimes.com/india-news/number-theory-fuel-prices-continue-to-rise-relief-unlikely-soon-101624920513336.html>
- Newman, J. and Maltais, K. (2020). Cheese makers reel as pandemic sows market chaos, Retrieved 12th July 2021 from <https://www.wsj.com/articles/cheese-makers-reel-as-pandemic-sows-market-chaos-11603877402>
- Phillips, M. (2020). What's gotten into the price of cheese?, Retrieved 2nd July 2021 from <https://www.nytimes.com/2020/06/22/business/cheese-cheddar-prices.html>
- PTI (2021). Central government's tax collection on petrol, diesel jumps 300% in 6 years, Retrieved 11th July 2021 from <https://www.hindustan times.com/india-news/central-government-s-tax-collection-on-petrol-diesel-jumps-300-in-6-years-101616412359082.html>
- Sharma, M. (2020). Centre to earn Rs 2.25 lakh cr more from new petrol, diesel taxes, Retrieved 14th July 2021 from <https://www.businesstoday.in/latest/economy-politics/story/centre-to-earn-rs-225-lakh-cr-more-from-new-petrol-diesel-taxes-263990-2020-07-14>