

“Revitalize & Thrive: Elevating sales and service through demand driven strategies”

A Business Data Management Capstone Project Report PPT

Prepared by

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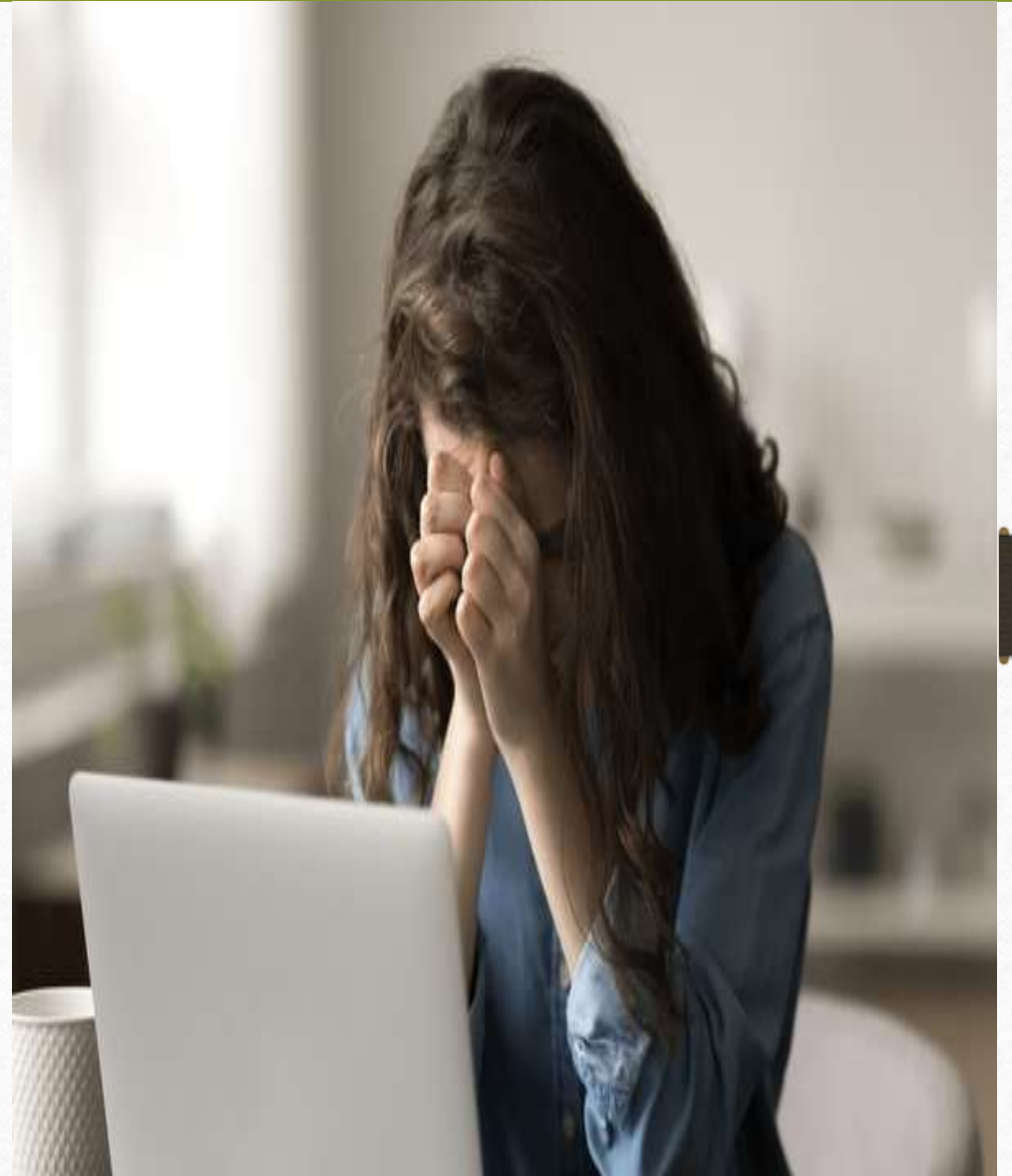
About the organization

The company name is Mullick Filling Station which is a well-established dealership business under Hindustan Petroleum, specializing in the retail sales of petrol, diesel, and power fuels located at State highway-6, Benipur, Tribeni, Hooghly, West Bengal([link](#)). It was established on April 22nd, 1965 by Lt. Hazi Zalolath Hussain Mullick. Over the years, Mullick Filling Station underwent significant transitions. After the passing of Hazi Zalolath, Lt. Mohammed Rufikul Alam, his son, became a pivotal partner. Subsequently, partnerships shifted, with Rufikul Alam collaborating with his cousin, Lt. Noor Alam Mullick, before forming a partnership with his wife, Lt. Jibannesa Mullick, in 1980. In 1996, Mohammed Zulfiquar Ali Mullick, Rufikul Alam's son, assumed control of the business, initially partnering with his father in a 70:30 ownership split. Following Rufikul Alam's demise in 2014, Zulfiquar Ali Mullick continued as the sole proprietor until December 6th, 2019. After December 6th, 2019 he welcomed his wife, Mrs. Foujyaiftakari Mullick, as a partner, maintaining a 70:30 ownership structure till now.



Difficulties faced by the organization

- ❑ To increase the amount of sales of power fuels with relative to sales of petrol fuels.
- ❑ To reduce the problem of unnecessary leaves of workers or less number of workers.
- ❑ To ensure maximum availability of workers during days of the week which contributes more to the sales by some demand driven strategies.



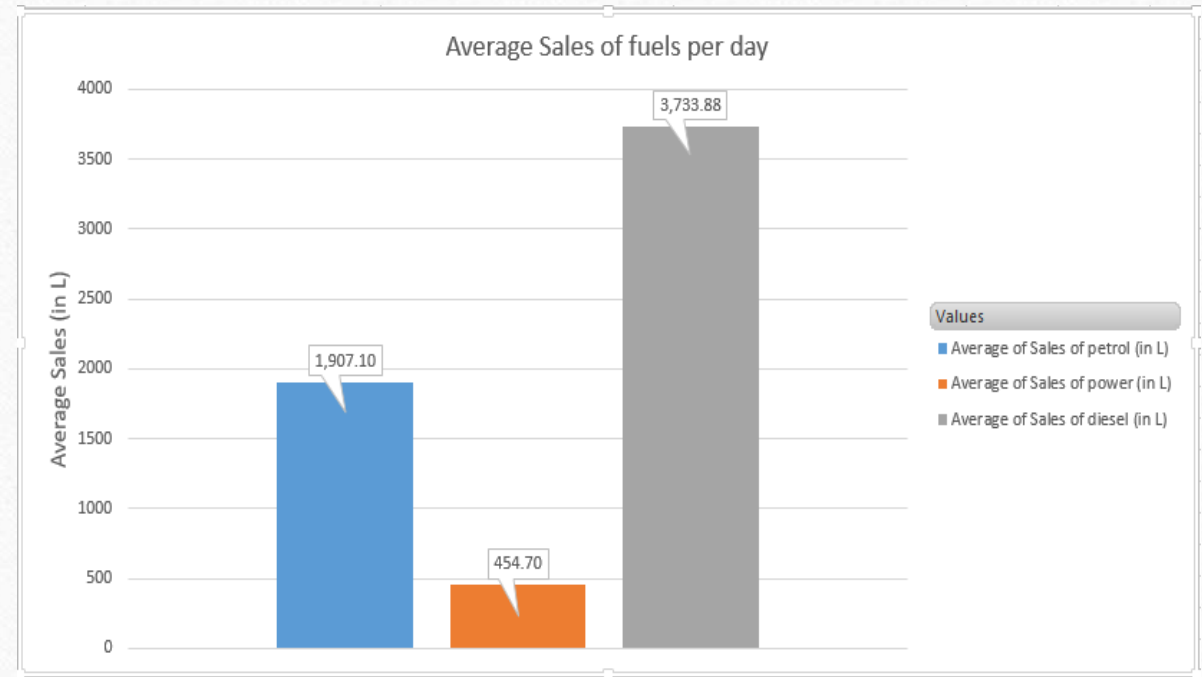
Relevant Data Collection

As my project title states “Revitalize & Thrive: Elevating sales and service through demand driven strategies” I therefore consider helping in elevating sales and service of the business through demand driven strategies. For this reason, I collected the sales data of petrol, diesel and power fuels for the period of 6 months i.e. from 1st April, 2023 to 30th September, 2023 in order to analyze the market demand. The sales data of three fuels were earlier recorded in record sales book by the business owner and all were measured in litres(L). Then the data was taken into excel manually by me, then preprocessed and determined various other columns such as weekdays, month, total sales of fuel on daily basis. The price of petrol in this petrol pump is Rs. 106.43/L, the price of power is Rs. 113.57/L and price of diesel is Rs. 93.14/L. From this information, revenue earned (in Rs.) by sales of each fuel type is calculated on daily basis. And lastly, total revenue earned (in Rs.) is calculated by summing up revenues earned by sales of each fuel.

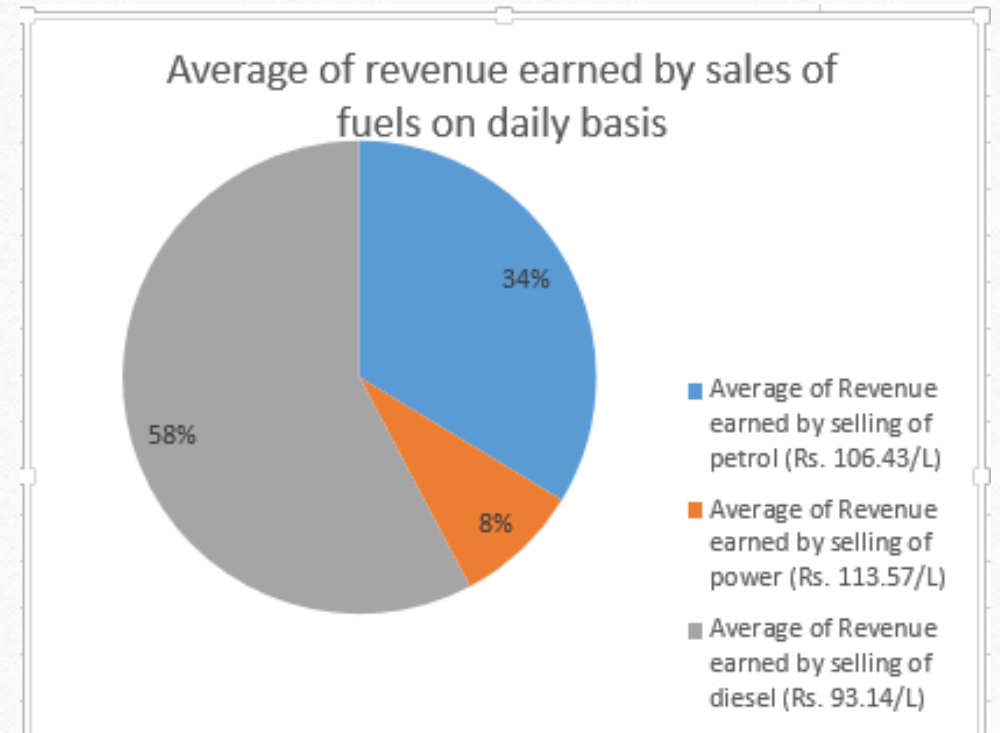


My Findings and Analysis

The bar chart shows the comparison between the average daily sales of petrol, power and diesel fuels in litres. Here we see that the power fuel is the least sold fuel and diesel fuel being the highest sold fuel. The average daily sales of diesel fuel is highest due to the obvious fact that there are 3 factories([BTPS](#), [Kesoram Rayon](#) and [ITC](#)) located nearby thus heavy vehicles creates the demand. For lighter vehicles and motorcycles, customers prefer petrol over power due its lower price than power.

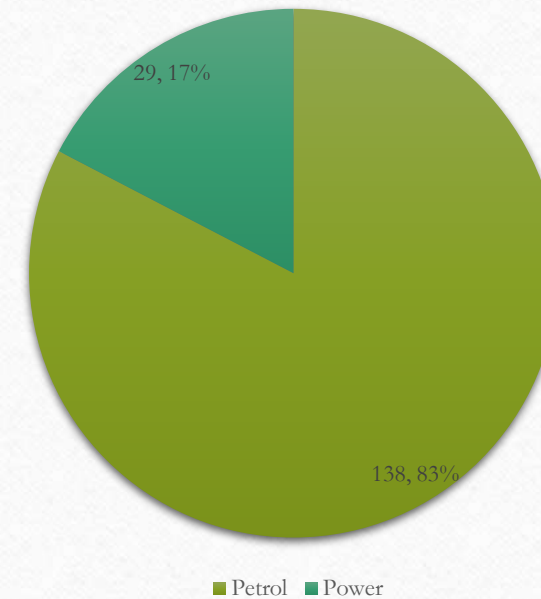


The figure alongside illustrates the percentage contribution of each fuel type to the average total daily revenue. Diesel emerges as the highest contributor, accounting for 58% of the average daily revenue. Petrol follows, contributing 34% of the average daily revenue. Power fuel contributes the least, making up 8% of the average daily revenue. Thus diesel and petrol contributes 92% of the daily average revenue and hence stock out of any of these products can cause huge loss in a single day. Thus the organization must ensure that efficient stock is available in each day.

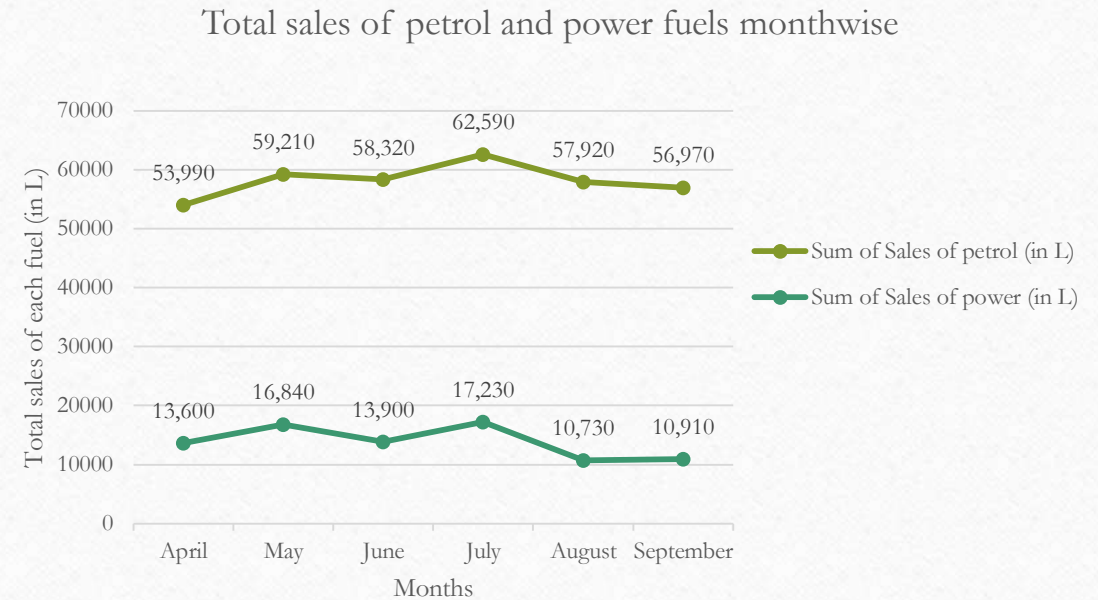


A market research was conducted on customers of petrol/power fuels on 25th July from 11:00 a.m. to 10p.m (the period of time when sales of fuel is high in a day). Total of 167 customers opted to buy petrol/power fuels. The pie chart alongside shows that out of total 167 customers, 138 customers opted for petrol fuel and 29 customers opted for power fuel. So about 17% customers prefer power fuels which is highly in correspondence with the average daily sales of power which is about 19% of the total petrol and power fuels sold.

Market research on 167 customers



The line chart alongside shows the trend of total sales of petrol and power on monthly basis. We observe that there is not too much deviation of changes in sales of power fuels with respect to sales of petrol fuels. Though there is no correlation between daily sales of petrol and power but there is a moderate correlation between total sales of power and petrol month wise with correlation coefficient value near 0.6. If price of the fuel had been the dominant factor which can affect sales of power then the sales of power would have decreased over months but it is not so in this case. This asserts the fact that power fuel customers are loyal.

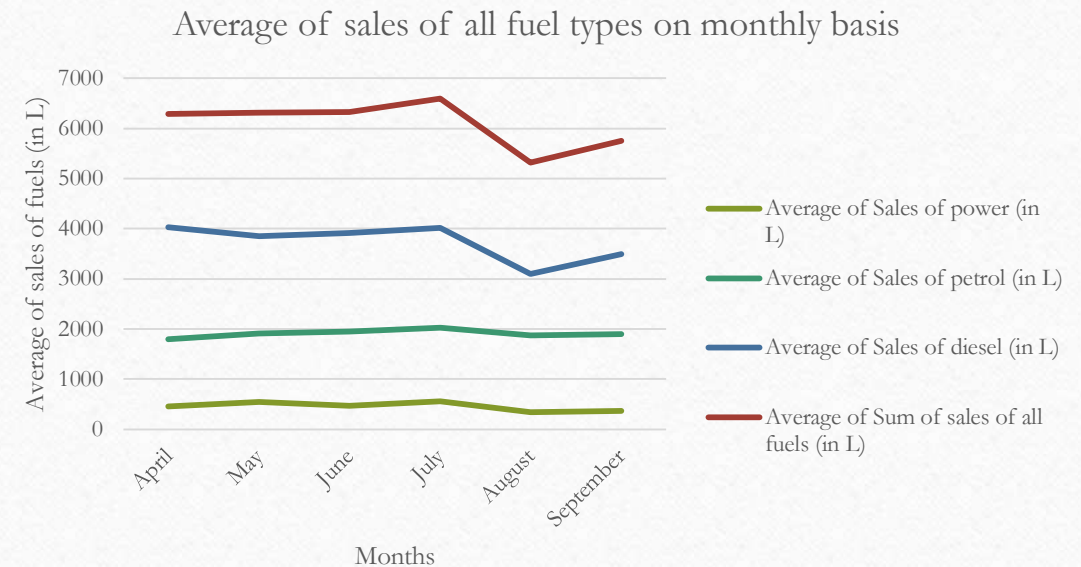


	Sales of petrol (in L)	Sales of power (in L)
Sales of petrol (in L)	1.000000	0.597069
Sales of power (in L)	0.597069	1.000000

The figure alongside illustrates the monthly trend in the average sales of each fuel type (petrol, power, and diesel) as well as the total sales of all fuels combined. From April to June, average sales across all fuel types remained relatively consistent. However, there was a notable increase in total fuel sales in July, largely due to the nearby panchayat elections. Increased traffic from commercial vehicles involved in election activities contributed to this spike in demand.

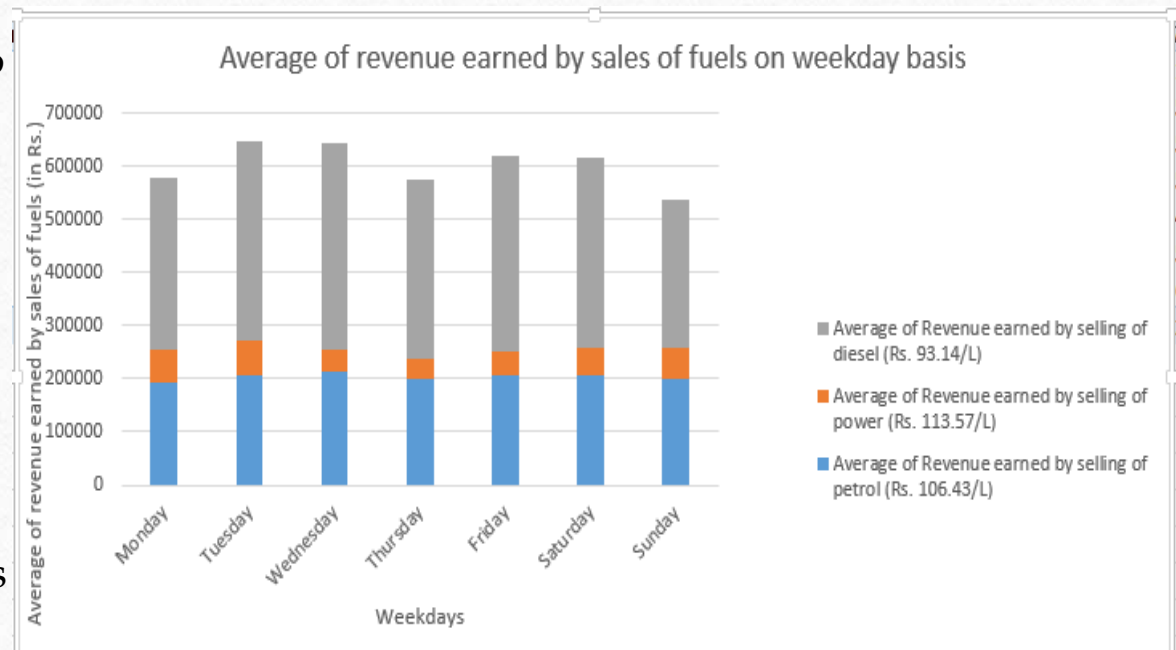
In August, we observe a significant decline in total fuel sales. This drop was attributed to a newly opened Reliance petrol station located about 40 kilometers away, offering fuel at a lower price. Many commercial vehicles, especially those on long-distance routes, opted to refuel at the Reliance station instead.

In September, the average sales of fuels began to recover. Lower prices became less feasible as fuel availability declined, leading to the need for imports. Consequently, sales at this station improved as prices stabilized.



The figure alongside depicts the average revenue earned from fuel sales across weekdays. The total revenue from all fuel sales shows an increasing trend from Monday to Tuesday, remaining relatively steady through Wednesday. However, there is a noticeable dip in revenue on Thursdays due to a decline in fuel sales. This drop can be attributed to two main factors. First, most shops in the locality remain closed on Thursdays, resulting in reduced vehicle traffic near the petrol pump. Second, many people consider Thursday as "Laxmi Day" and follow a superstition that discourages going out on this day.

On weekends, particularly Sundays, diesel sales decrease significantly because the majority of commercial vehicle drivers take leave. Conversely, sales of power fuel (branded fuel) increase substantially on Sundays, as families often plan trips and prefer power fuel over petrol due to its superior performance. If customers are deterred by the higher price of power, they tend to opt for petrol instead, which helps maintain relatively stable petrol sales over the weekend.



My recommendations

❑ Awareness Campaigns

Launch awareness campaigns and marketing efforts to educate customers on the benefits of power fuel, such as its higher octane rating and improved engine efficiency.

❑ Targeted Marketing

Direct advertisements towards families, officer rank customers (considering the three factories located nearby) and long-distance car owners, highlighting the reliability of power fuel for extended journeys and its advantages over regular fuel.

❑ Cross-Selling Opportunities

Create bundled offers that combine power fuel purchases with essential services like tire pressure checks or discounted accessories, encouraging customers to opt for power fuel.

❑ Workforce Management

Ensure adequate staff on high-sales days (i.e. on Tuesday, Wednesday, Friday and Saturday). Offer incentives to minimize unnecessary absences, also on weekends. Explore flexible shifts to boost employee morale.

❑ Monthly Trends Adaptation

Prepare for expected demand spikes during major local events or festive seasons, ensuring adequate staffing and fuel availability. Address seasonal sales declines through free or discounted services to maintain customer interest.

