CAPSTONE PROJECT

ON

NITIN'S VEGETABLE SHOP

- **Introduction**

  Purpose of Analysis – To maximize sales output of vegetable shop.
  Data Duration – From 20th October 2021 to 20th November 2021.
  Data Collection method – Daily visits to shop wherein he would tell me the details.

- **Analysis**
  - Elementary analysis of the data.

    Total profit - ₹47,073
    Average Daily revenue - ₹1,471
    Profit margin - 25%.

  - Sales analysis concerning vegetables.

    Nitin sells 28 different types of vegetables, and his sales were accounted for ₹2,38,393. So, the average sales revenue per vegetable turns out to be ₹8,504. We divided these vegetables into 4 quadrants according to their significance to revenue. Here are the inferences →
    Quadrant 1(high rate and high revenue) – Green Flat beans, Cucumber, and Onions
    Quadrant 2(revenue-generating due to high price) – Corpse, Capsicum, and Okra.
    Quadrant 3(revenue-generating because of high volume sales) – Lemons and
    Quadrant 4 (Low revenue-generating vegetables) Mint, Fenugreek, and Amaranth Leaves

  - Pareto Analysis.

    Pareto's Principle does not hold on to this dataset as the top 20% of vegetables i.e., 6 vegetables contribute to 53% of total sales only.

  - Sales Analysis concerning days of the week.

    Best performing days – Sundays and Wednesdays
    Worst performing days – Saturdays (The reason is main market's weekly off.)

  - Effect of Diwali on vegetable sales.

    We get interesting inferences on dividing the data into before Diwali, Diwali, and after Diwali classification buckets. We notice that average sales per day shot up to nearly 2 times the sales before Diwali and the good spell continued after Diwali with revenue being 1.25 times the revenue before Diwali.

- **Inferences and Recommendations**
  - Nitin is a clever businessman and knows his customer base very well.
  - He can improve his sales further by:
    1) Introducing a store credit system to attract more customers typically in the festive period.
    2) Aiming to improve sales of Quadrant 2 vegetables and bring them in quadrant 1.
    3) Carefully planning vegetable stock so that he has enough vegetables to sell on Saturdays.

CAPSTONE PROJECT

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Introduction –

This capstone project was performed to analyze sales patterns and trends from data collected from a vegetable shop named Nitin's Vegetable Shop.

Premise –

Nitin is a Businessman in Pune. He owns a vegetable shop and sells vegetables. He goes to the main market of the city, Shiv Chhatrapati Market yard, Pune every alternate day to stock up his supplies and then sell those vegetables for the next 2 days. The market has its weekly holiday on Saturdays and hence, he cannot stock up on Saturdays. Nitin also owns a Tempo Traveler employing which he loads and unloads the vegetables. He has been in this business for the last 7 years.

Data duration and collection –

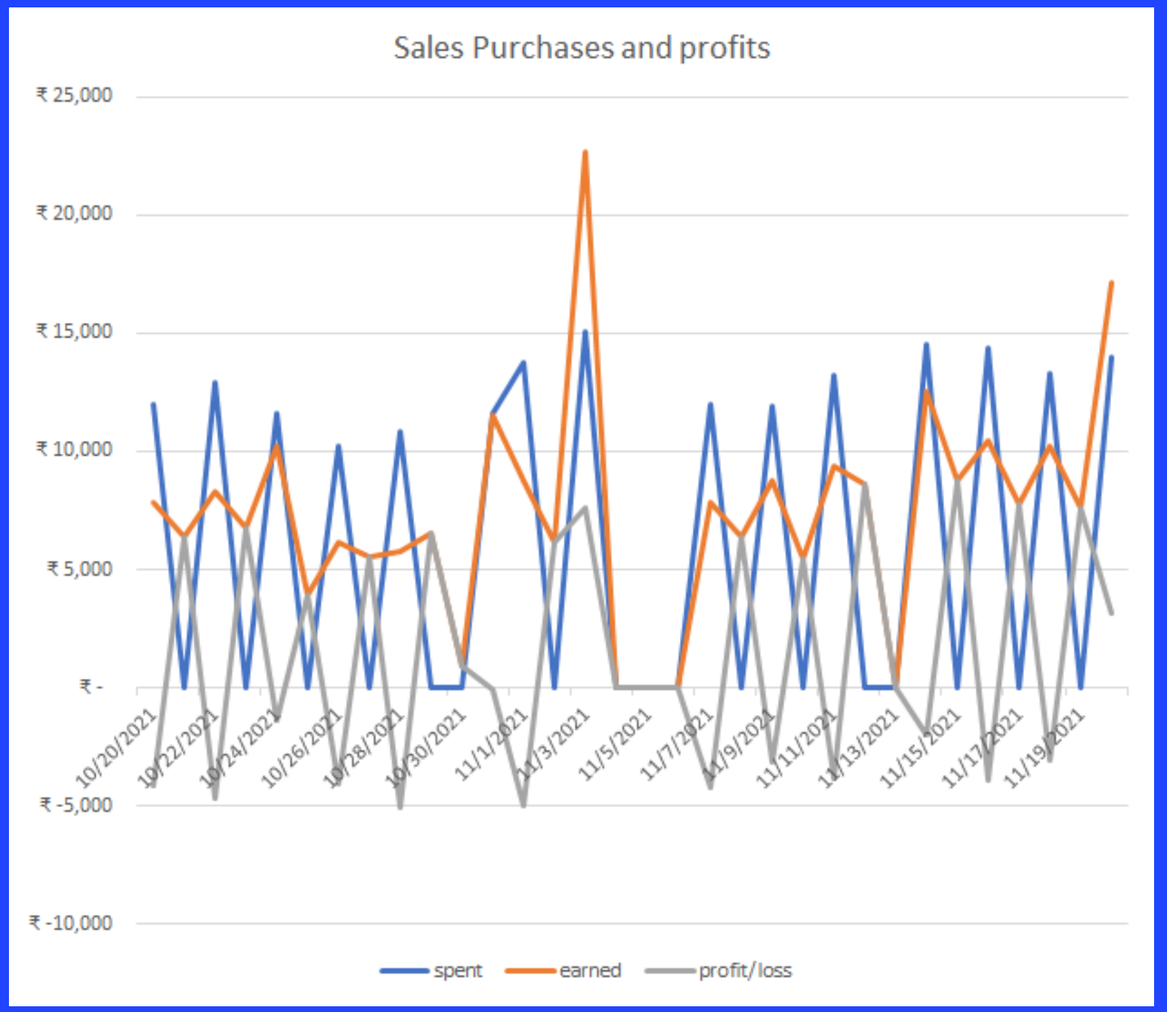
The data collected is as follows. I have collected opening stock, closing stock, the rate at which he bought the vegetables, and the rate at which he sold vegetables for a duration of 1 month from 20th October 2021 to 20th November 2021.

Data –

Capstone_data.xlsx

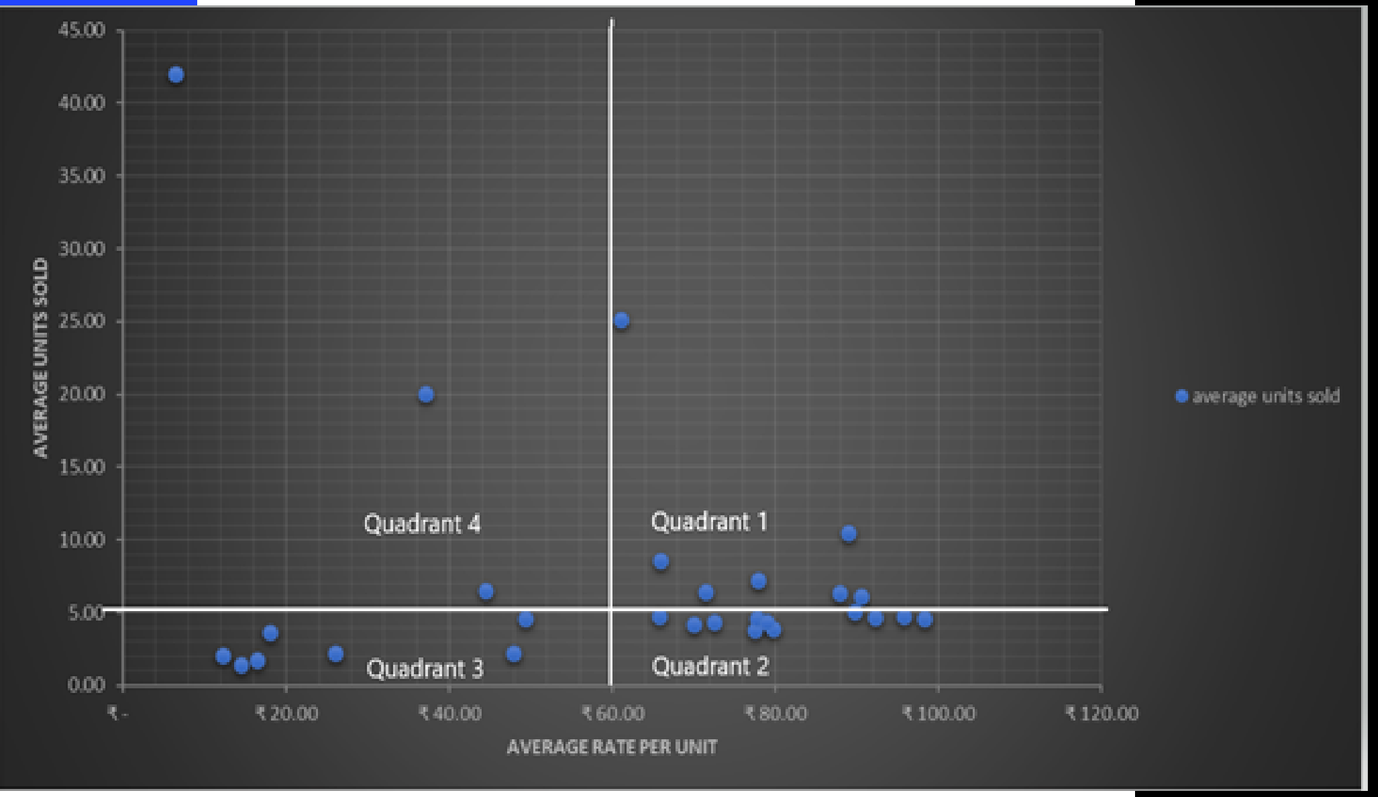
Elementary Data Analysis

Total expenses	₹ 1,91,320
Total earning	₹ 2,38,393
Total profit	₹ 47,073
Total Days	32
Daily average profit	₹1,471
profit margin	25%

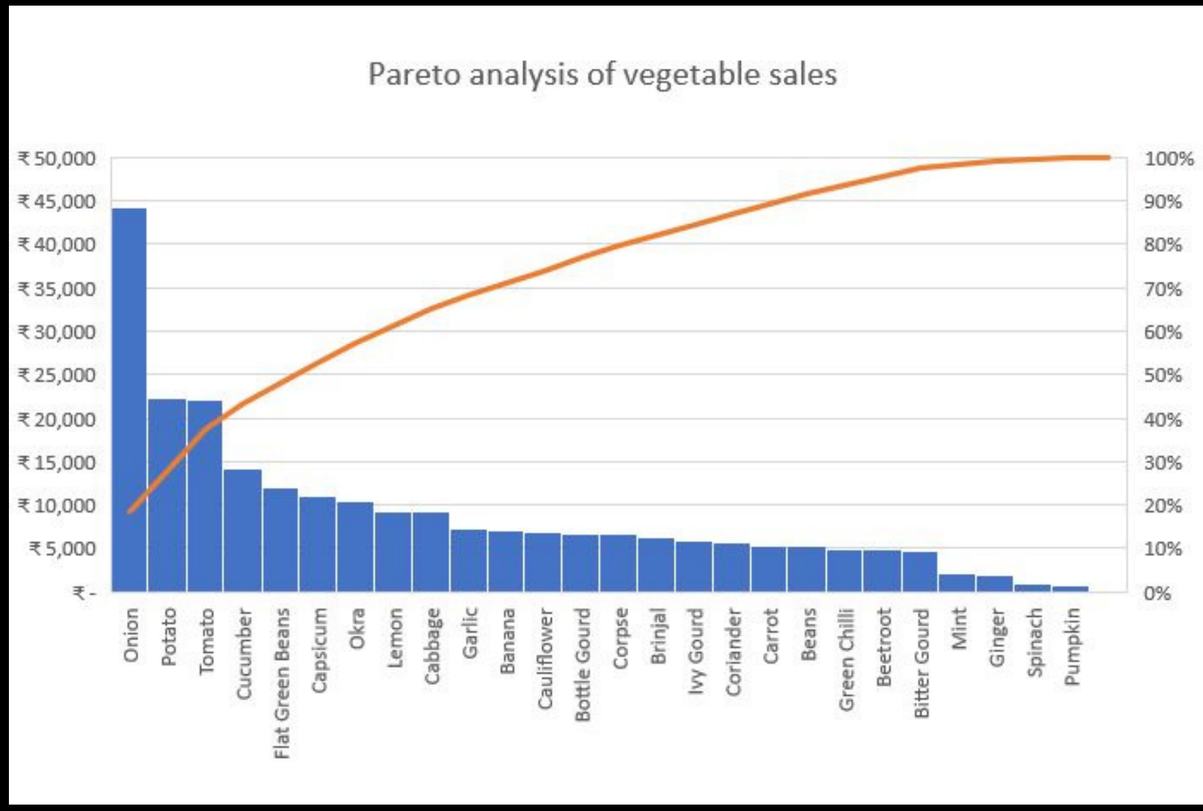


** Negative Values of profit on alternate days denote the day he stocked up and the day he did not.*

Analysis concerning vegetable sales

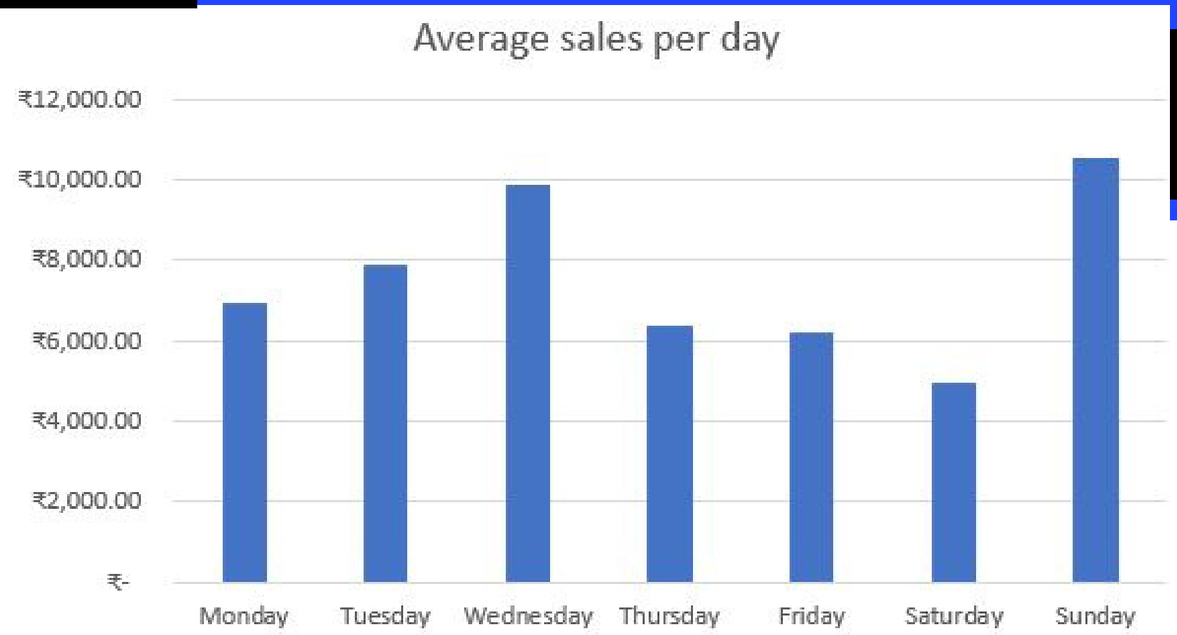


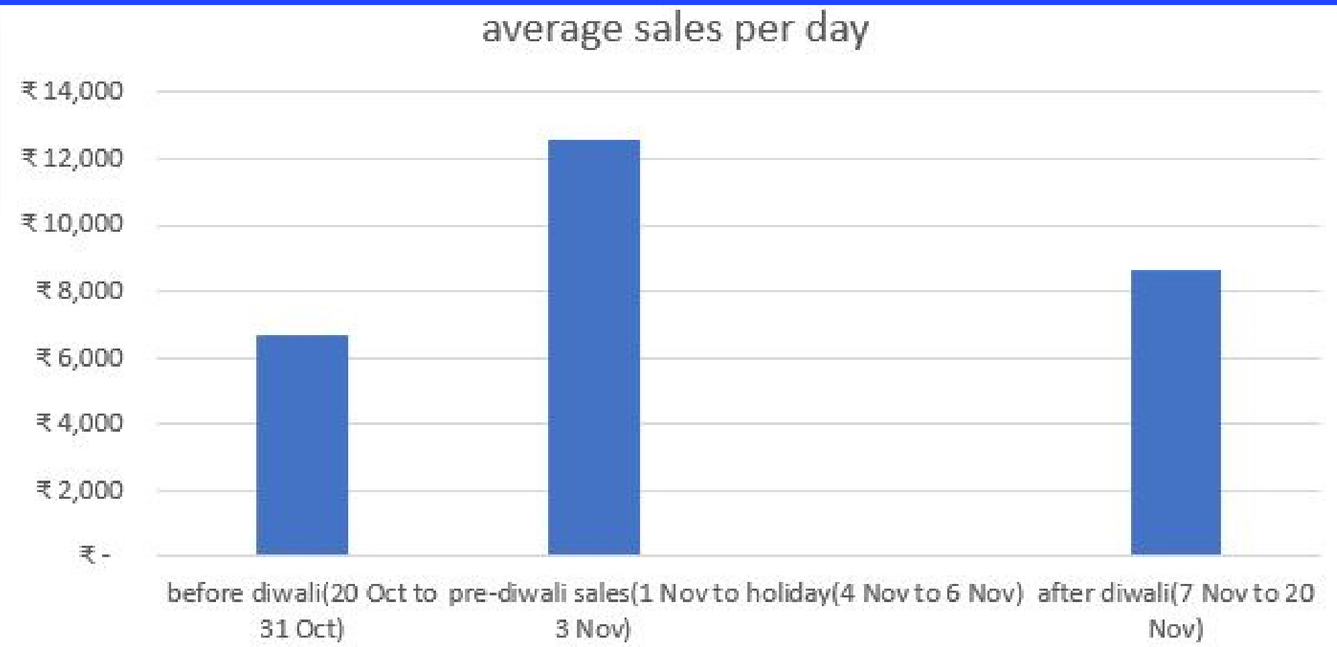
Pareto's principle does not hold good as the top 20% selling vegetables contribute to 53% percent of total sales only.



Quadrant 1 – Rate > ₹60 and sales > 5 units per day
Quadrant 2 – Rate > ₹60 and sales < 5 units per day
Quadrant 3 – Rate < ₹60 and sales > 5 units per day
Quadrant 4 – Rate < ₹60 and sales < 5 units per day

Sales per weekdays and effect of Diwali





Day	Average revenue
Monday	₹ 6,971.25
Tuesday	₹ 7,882.50
Wednesday	₹ 9,848.00
Thursday	₹ 6,348.80
Friday	₹ 6,214.80
Saturday	₹ 4,958.00
Sunday	₹ 10,532.50

Period	Average sales per day
Before Diwali(20 Oct to 31 Oct)	₹ 6,655
Pre-Diwali sales(1 Nov to 3 Nov)	₹ 12,540
Holiday(4 Nov to 6 Nov)	₹ -
After Diwali(7 Nov to 20 Nov)	₹ 8,637

Inferences and recommendations:

- From the above analysis, it can be inferred that Nitin is a clever businessman and knows his customer base properly. He has developed a good understanding of the surroundings to maximize his income. However, the following recommendations can help him maximize his income even further.
- Introducing a store credit system to attract more customers typically in the festive period.
- Aiming to improve sales of Quadrant 2 vegetables and bring them in quadrant 1.
- Carefully planning vegetable stock so that he has enough vegetables to sell on Fridays.