

Capstone Project Report

Data Analysis of a Wholesale Greengrocer shop

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Business description :

This data analysis report is based on wholesale greengrocer shop which is owned by my grandfather Sri Narayan Chandra Saha. This shop is located in Dainhat bazar, Dist-Purba Bardhaman, State-West Bengal (Shop location - [Click here](#)).

The wholesale items are potato, ginger, onion and garlic. His business has been running for about 40 years.

Data collection :

When I came to know about this Capstone Project I asked my grandfather to give me his daily business data about more than one month.

So he gave me his daily business data from 01.09.21-15.10.21. But the data was unstructured. So I started cleaning those data. I tried my best to structure it in a proper way. First I put all that data in my excel sheet and then started analysing it.



My Analysis:

- Total profit in 45 days. Average profit per kg from each item.
- Day wise sells for each item.
- Day wise volume(in kg) trend and day wise revenue trend .
- Daily volume trend and daily revenue trend to know the outliers.
- Daily revenue growth to understand the lowest growth day.
- Revenue Pareto chart and Volume Pareto chart on sale.
- ScatterPlot to analyse total volume vs total revenue.

Some basic recommendations:

The overall performance of this business is good. So here I added some basic recommendations.

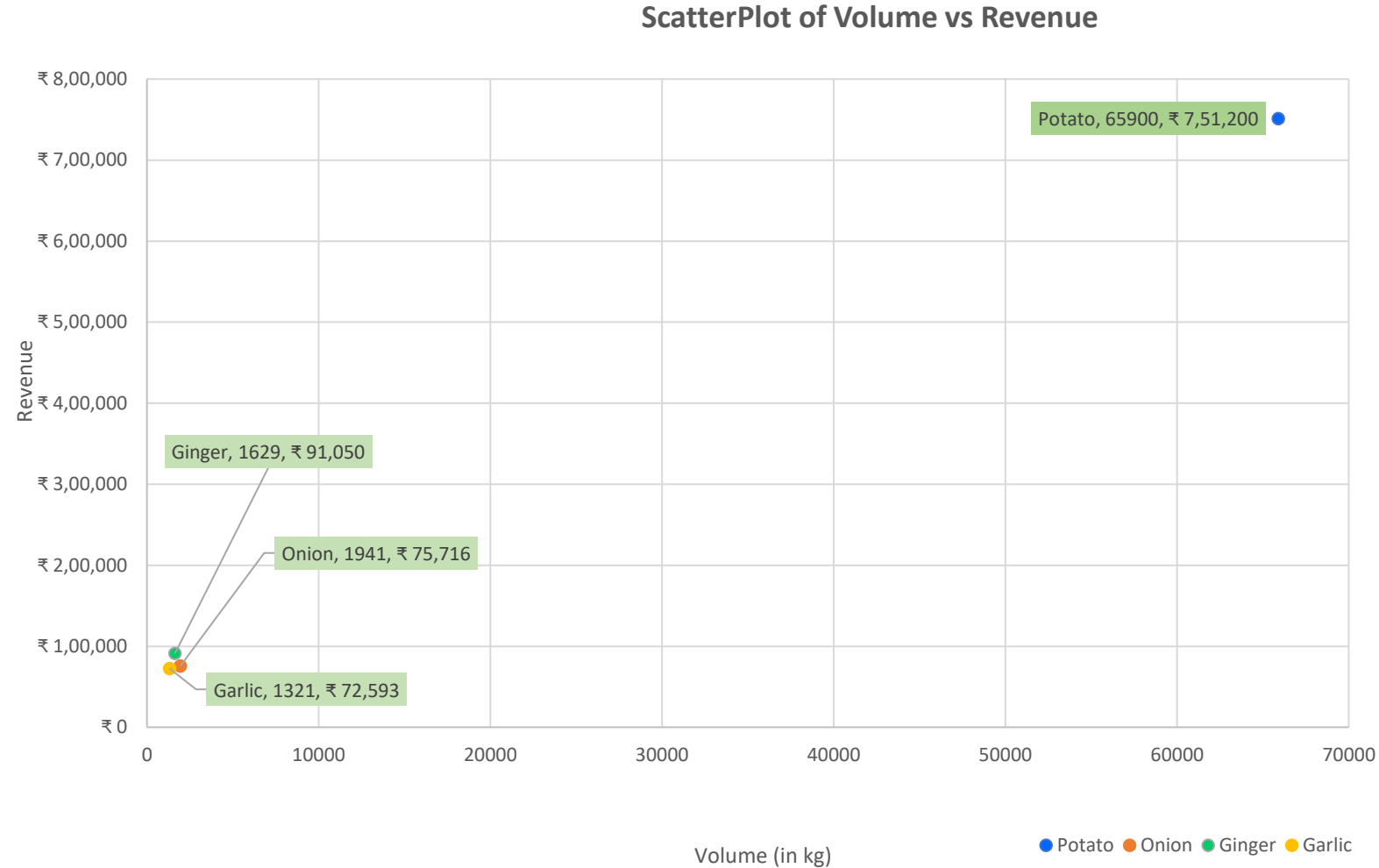
- To give a look on garlic sales as it has the highest profit per kg .
- Try to keep the shop open as many hours as possible on Wednesday because more revenue has come from that day.
- Try to add online payment methods . Because nowadays customers prefer online payment rather than giving cash.

Some basic key point about the business

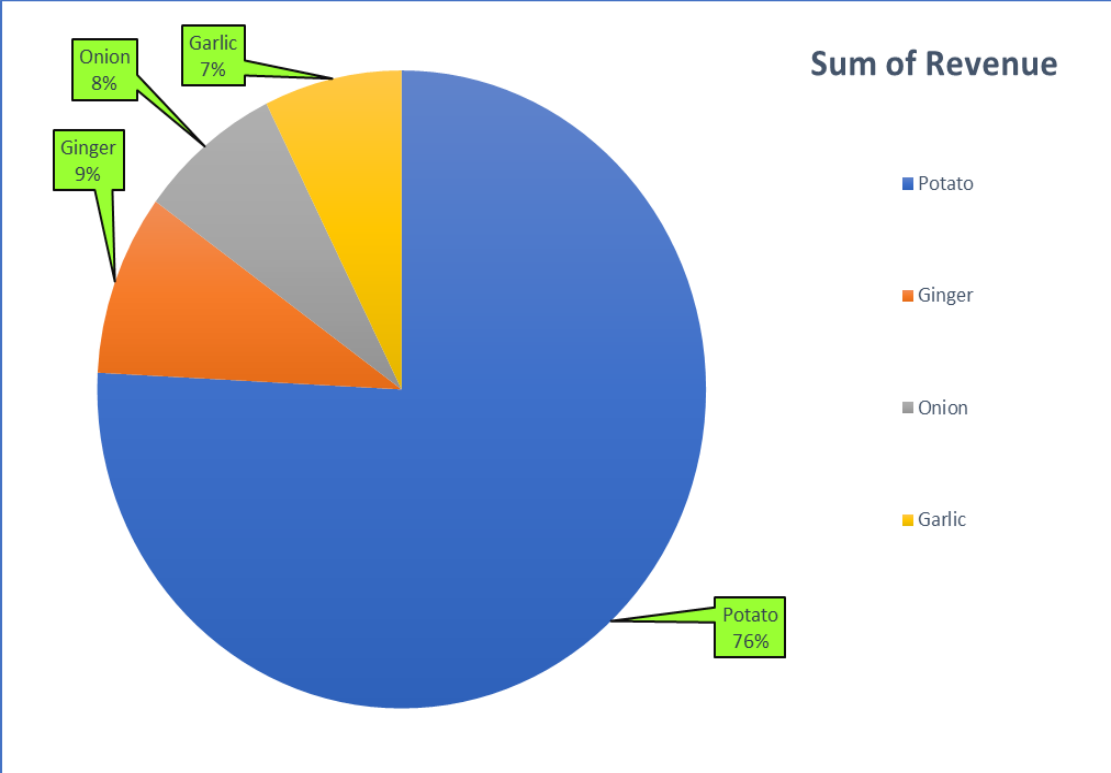
- Business location - Dainhatbazar, Dist-Purba Bardhaman, State-West Bengal
- The business is based on 4 vegetables(Potato, onion, ginger, garlic)
- This is a wholesale business which is running about more than 40 years.

Data collection

- As this is my grandfather's shop , so when I came to know about this project, I asked him to give more than one months data.
- After collecting the unstructured data I started to cleaning it in a understandable way.
- Atlast insert those values into my Excel sheet.

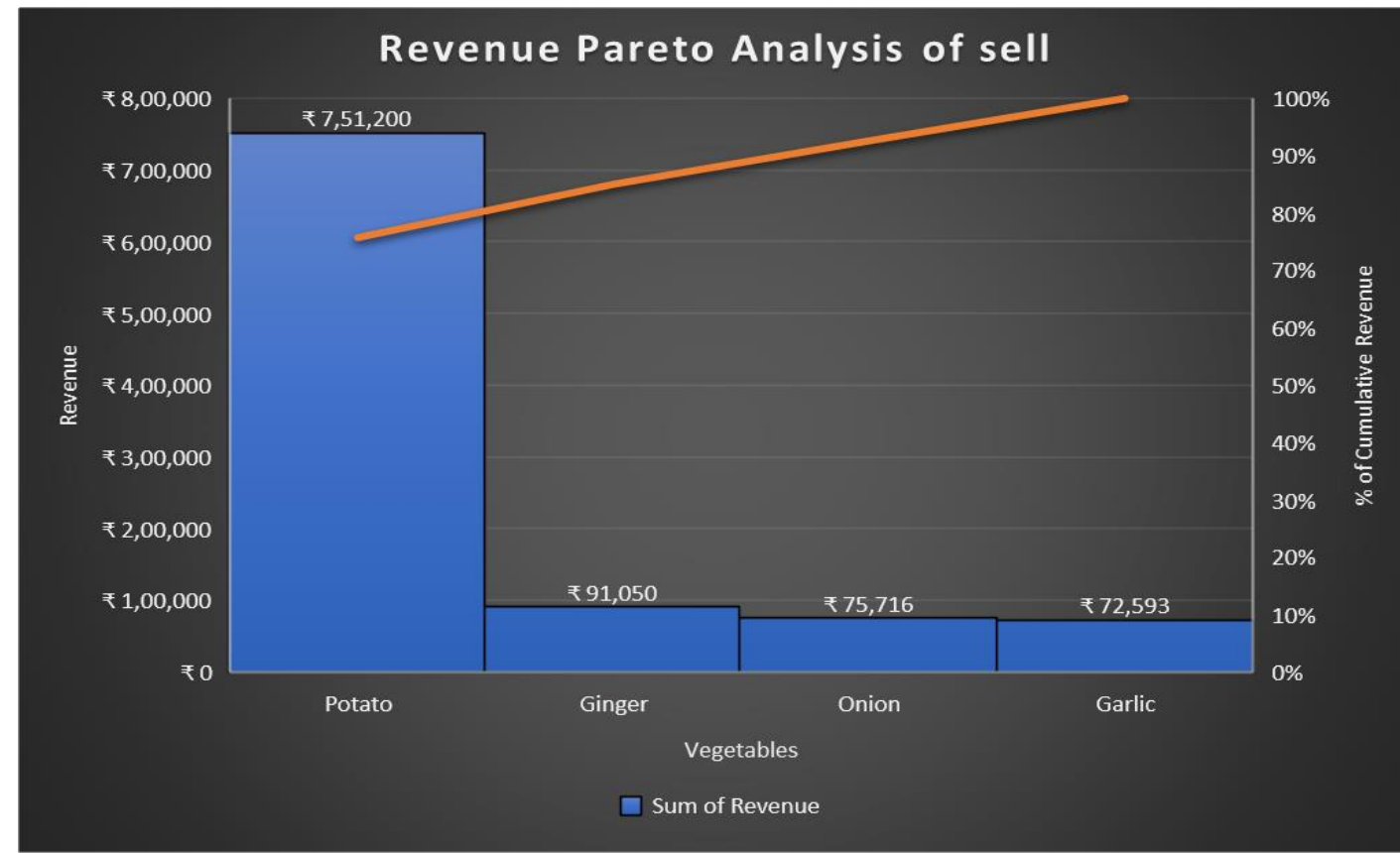


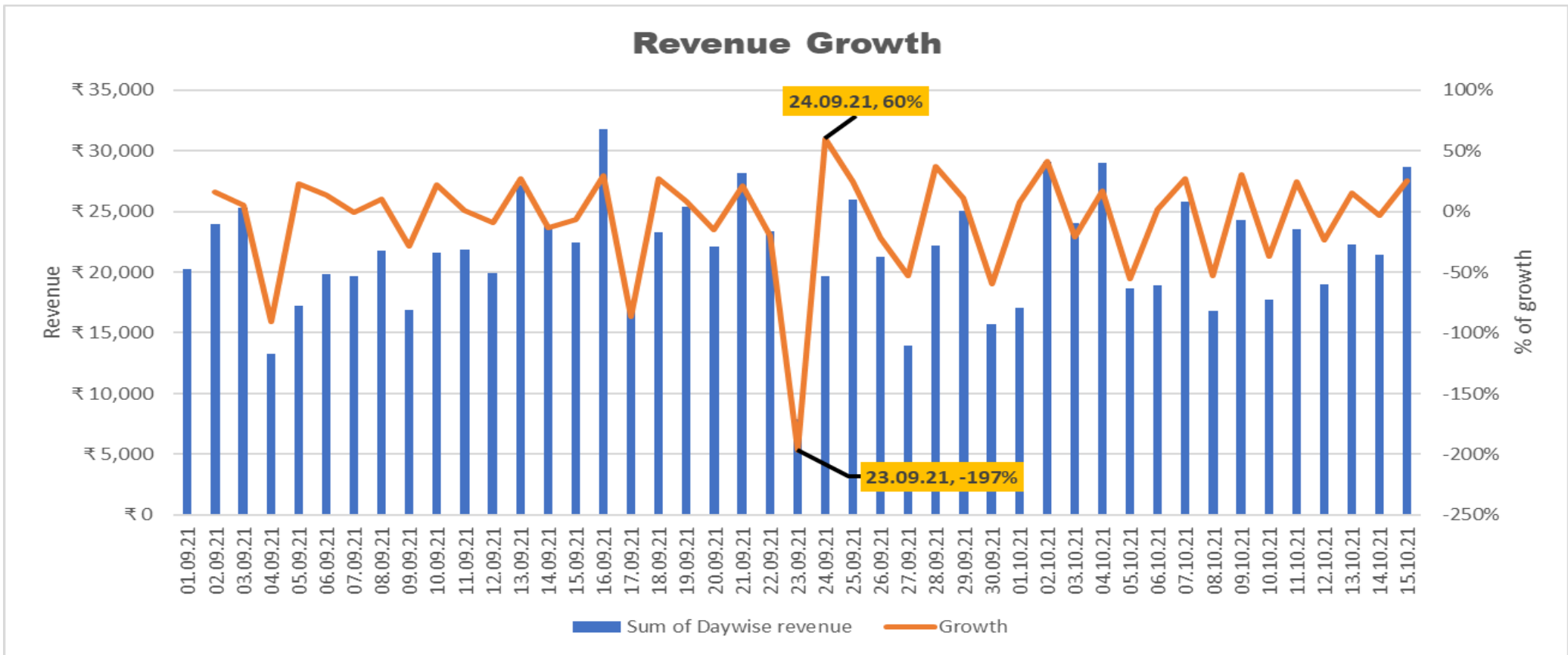
From the above Scatterplot it is clear that the highest revenue and selling quantity is of the item potato.



From the chart we can see that potato generates the highest revenue in this business which is 76% of the total revenue alone.

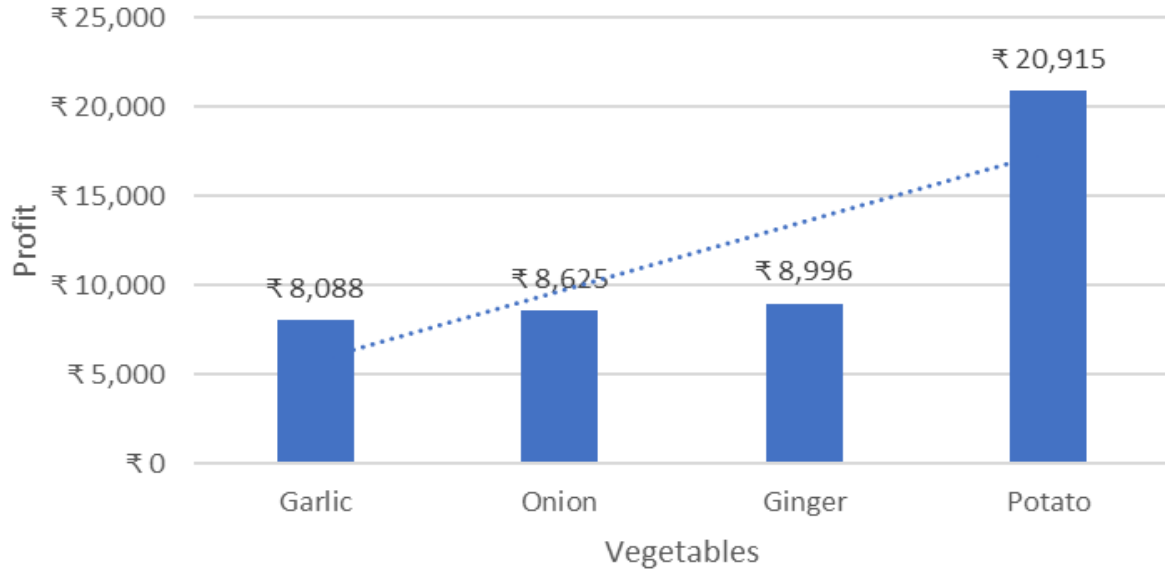
After potato ginger generates the second highest revenue and after then garlic and onion produces nearly the same.





From the above Revenue growth chart we can observe that the lowest growth occurs on 23.09.21, which was nearly -200%. But noticeably on the next day the highest growth also occurs. The reason was, on 23rd Sep the shop was opened only till half of the day. So the buyers could not buy too much items on that day and they came back to buy it on the next day.

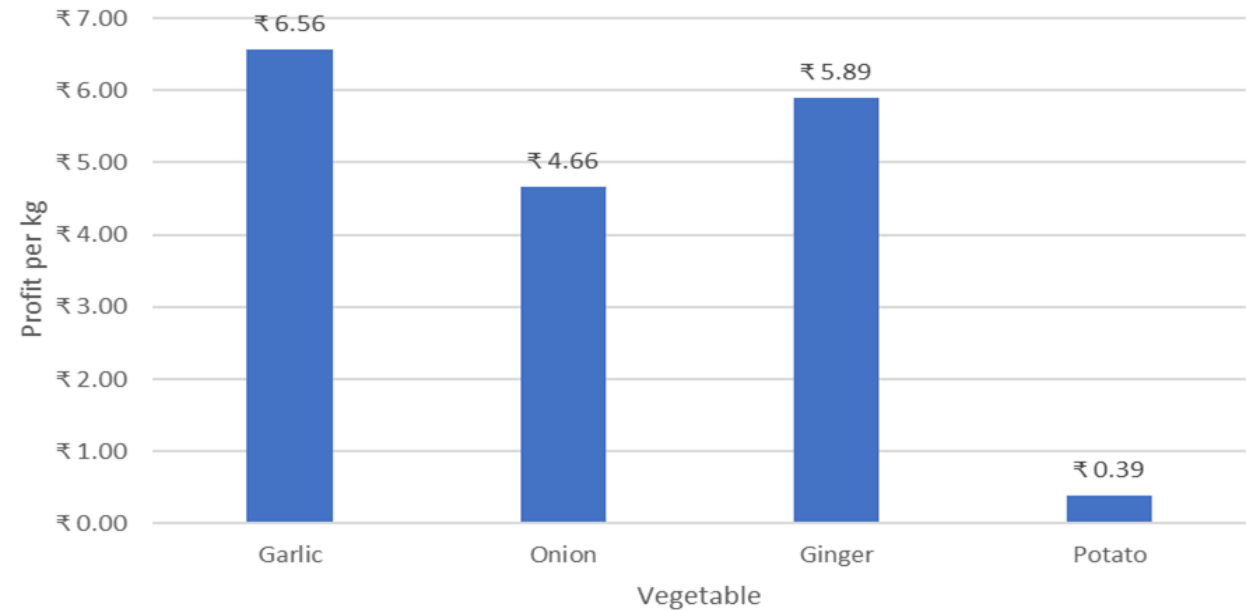
Profit Chart



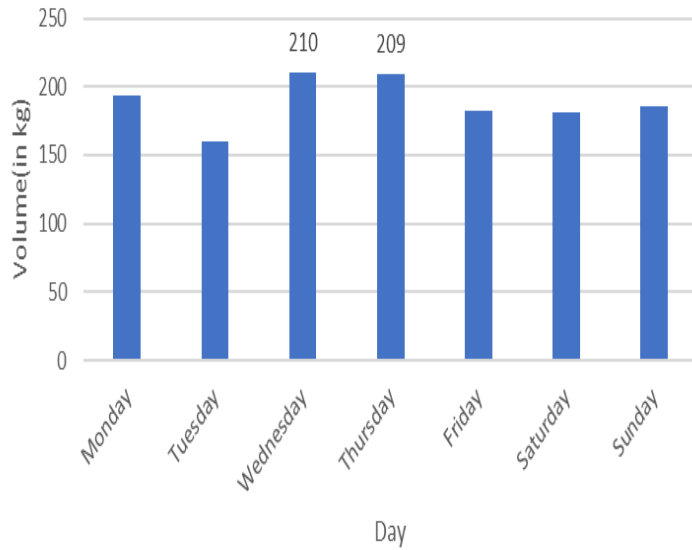
From the below chart we can see the average profit per kg for each vegetables. The highest average profit per kg is from Garlic. It is noticeable that potato has the lowest average profit per kg.

Although potato has the lowest average profit per kg but the total major profit has come from potato which is 20,915/-

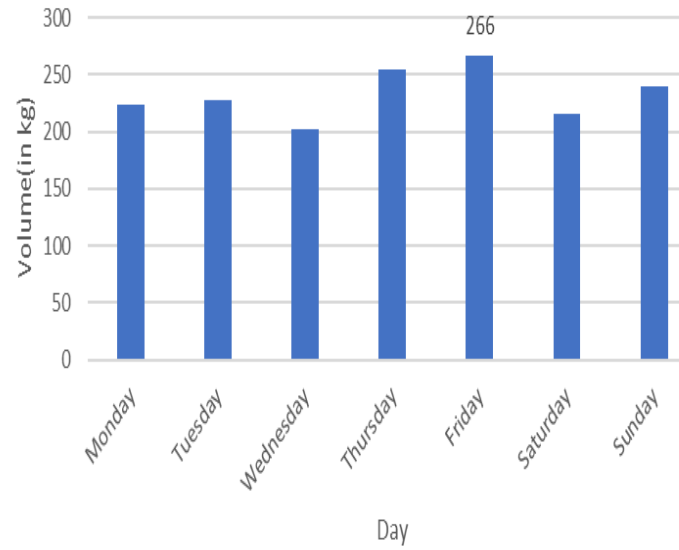
Average profit per kg



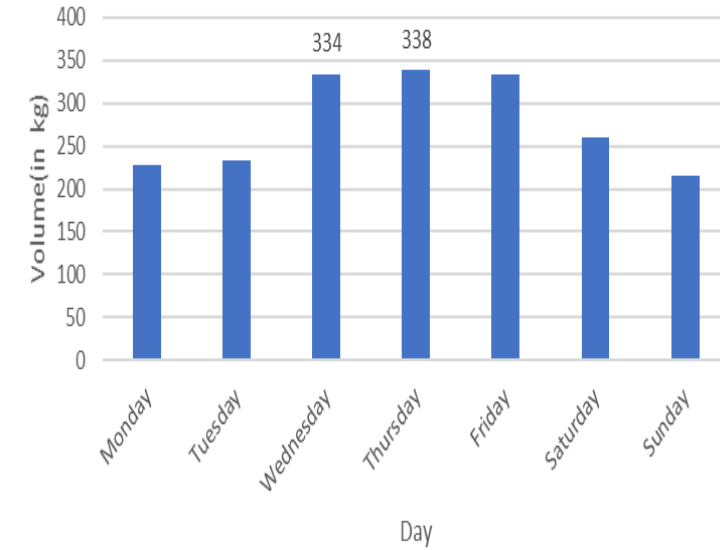
Daywise Garlic sell(in kg)



Daywise Ginger sell (in kg)



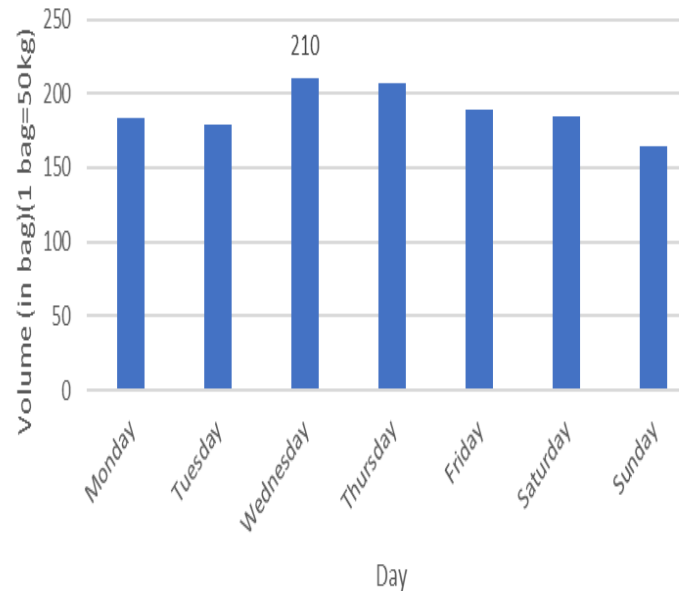
Daywise Onion sell(in kg)



From these charts we can see that on Wednesday and Friday most of the sells had occurred.

It is because as the shop is opened until noon on every Thursday.

Daywise Potato sell (per bag)



Recommendations

According to me the shop is doing very well in it's business but if it wants to get more profit I think it has to start taking begin online payments, as it is the era of digitalization.

One more thing, the shop can increase the stock of garlic as it is most profitable.