



Business DataManagement  
Project Proposal



Case Study of Bansal Kirana Store

**Name : Kartik Valecha**

**Email : 21f1000089@ds.study.iitm.ac.in**

**Roll No. : 21f1000089**

## **Executive Summary :**

The store from which I have collected the data is a medium-sized kirana store located in Rohini district, Delhi . The primary reasons for me to select that particular store are:

- Store is Located in my neighborhood
- Size and scale of business are in my range
- Owners corporation to share his business data
- I am a daily customer of that store
- The owner is a bit educated to understand my proposal.

### **Data Collection :**

For data collection I personally have collected the data from the store owner by using

- Store record books
- Previous issued bills

Till date, I have collected around 30 days of data and will continue to do so until a meaningful conclusion can be arrived by the business model

The following are the products whose data i have collected:

- Rice
- Atta
- Toor dal
- Moong dal
- Urad Dal
- Sugar
- Oil
- Ghee
- Milk and Dairy (milk , curd , paneer , cheese etc...)
- Dry Fruits (almonds , cashew , dried grapes etc ... )

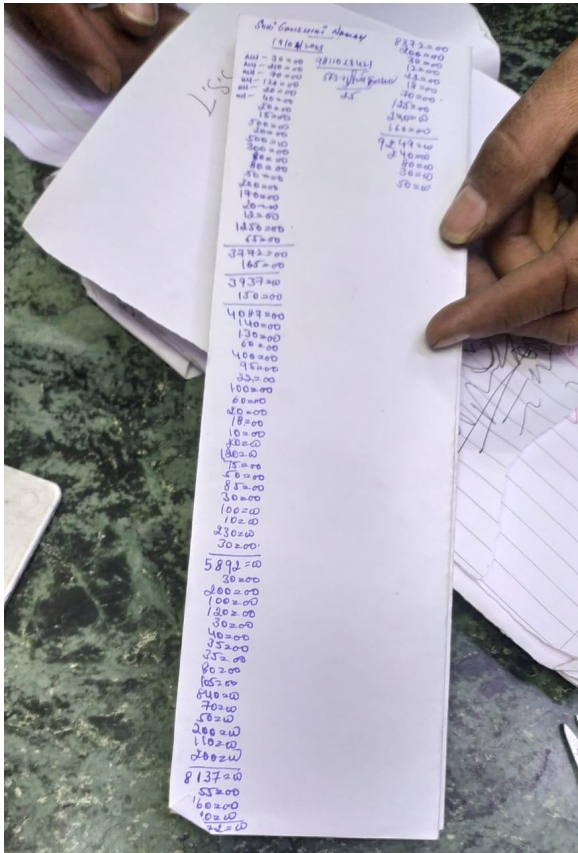
## **Organization Background :**

Name : Bansal Store

Owner : Mr. Raj Bansal

Address : H-1/4 , Sector -11 , Rohini , Delhi - 110085

- Bansal Store is a standard kirana shop that specializes in the sale of daily use products such as Dal , Sugar , salt , Oils , Ghee , Dry Fruits etc ..
- This retail establishment was established in early 2018. The proprietor of the store has put a total of three lakhs into the business, with some of that money going toward fixed assets like the building and some going into variable assets like the merchandise.
- As a result of my conversation with the owner of the store and some analysis on my part, I have discovered that the store was operating fairly well before the increase of online marketing system and since then there is a tremendous fall down in sales and profit margins



Picture of sales record (informal)



Picture of shop

## **Problem Statement (Listed as objectives):**

From my interaction with the proprietor of the store and some general observation of the store from quite a long time, I found out that The store has managed to build a good customer relation base, and also has managed to get good sales, But

- Store is not performing up to expectations when it comes to net profit
- Stores inventory is always filled up to the brim which can cause problems like food wastage , product damage etc .. which can cost a lot of money to the business.

Hence problem statement can be comprised of the following

- Optimization of the inventory, i.e analyzing the store inventory using sales and intake
- Analyzing the net profit margin and steps to increase the same
- How to increase reach if required by comparing store performance from its competitors

## **Background of the Problem:**

- After a detail discussion with Owner, i concluded that the store was performing well before the boom of online shopping, and as a result of covid lockdown many of the old customers have shifted to online shopping due to great discount and home delivery comfort
- I have also been a regular customer of this establishment, and from what I've seen, I've concluded that despite the fact that the store is surrounded by four to five apartments and has a good amount of sales relative to its size and reach, and enjoys a high level of customer trust, the establishment is having trouble expanding its fixed assets.
  - Inadequate sales forecasting and improper management of inventories are two of the key factors that I believe contributed to the present state of things.
  - In addition, I have found that the pricing of dry fruits and oil in this particular store is somewhat more expensive when compared to those in other shops.

After giving all of these a lot of thought, I have come to the conclusion that the best way to make use of the information, skills, and tools that were taught in the course is to identify appropriate and workable solutions through a thorough analysis of the business.

## **Problem Solving Approach:**

### Details about the methods used with Justification

The primary type of Data that I collected is time-series data. So I will be having good scope for plotting all sorts of trend lines and scatter plots. And using the intense power of pivot tables, I am can plot pie charts, and stacked histograms to find insights from the data that I have collected. And by using the Ratios that were taught in the course, I am planning to compute key financial quantities, which I believe can help to solve his problem.

## Details about the intended data collection with Justification

Although there were many products sold by the seller, I have planned to only collect data for 10, for making the process of data collection as well as analysis conclusive. The various variables that have been collected for the above products are:

- Cost price
- Selling Price
- Quantity Sold
- Quantity Bought

From the above 4 variables, I am planning to compute key quantities like Revenue, Expenditure, Gross Profit, Net Profit, Profit Margin, Average Inventory, Wastage due to damage, and many more key financial ratios like ROCE ( return on capital employed), Gross profit ratio, Net profit ratio, etc.

I am also planning to collect the information about Capital invested, and also details about liabilities, fixed assets, variable assets, labor, and transportation costs for calculating the above ratios.

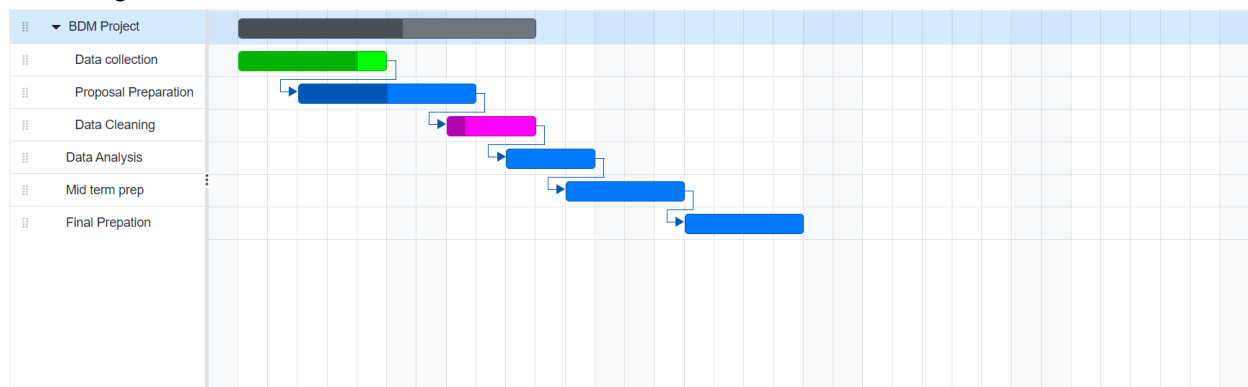
## Details about the analysis tools with Justification

Since the type of data collected is majorly time series data, I am using Excel to process the data. Tools that are being used for the entire analysis are:

- Pivot Tables for filtering and computing row/ column wise
- Various Excel functions like VLOOKUP, COUNTIF, COUNTIFS, boolean operators, etc.
- For data visualization, I am primarily using: Pie charts, Stacked Histograms, Histograms, Scatter plots, Heat maps, etc.

## **Expected Timeline:**

I have successfully collected 30 days worth of data which will be first cleaned , analyzed according to which more data will be collected if needed



Gantt Chart

**Expected Outcome:**

- Assist the owner in organizing the business more effectively by creating pivot tables and graphs
- Suggest the best possible solution for inventory management
- Suggest the business plan to increase profit margin and solve the above mentioned problems