

# BDM CAPSTONE PROJECT: PROPOSAL

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## **SALES ANALYSIS AND INVENTORY BREAKDOWN OF A STATIONERY SHOP - EXECUTIVE SUMMARY:**

The purpose of this report is to analyse the day-to-day sales of a stationery shop. Stationery shops keep a large inventory of items, ranging from high-value goods such as printer cartridges to low-value goods such as pens and paper clips.

There is a requirement to streamline the inventory to reduce the costs associated with both procuring the goods as well as warehousing them.

For this report, data was collected from a stationery shop located in the heart of the city, which deals with both businesses as well as end customers.

This report aims to give its users an understanding of the proportionate contribution of each item to the total sales and revenue, as well as analyse whether there is any seasonality in the movement of goods.

## **ORGANIZATION BACKGROUND:**

B.C.Brothers Stationery was founded in 1952 by Mr R.P.Bhattecharjee. Located in Police Bazaar, right in the heart of the city of Shillong, the shop deals with both businesses as well as end customers. Currently, Mr Ratnadeep Bhattecharjee presides as the owner of the business.

It is a small business, with Mr Ratnadeep as the sole stakeholder in the firm, and employs roughly 8 people year-round.

The main customer base of the business comprises of school and university students, office workers, and other local businesses in the area. The shop deals in a wide variety of goods ranging from printer cartridges and computer keyboards to pens and graph papers.

## **PROBLEM STATEMENT:**

- To help the firm to computerize its paper records.
- To analyse the contribution of each item to the total sales and revenue.
- To plot out trends in demand and check for seasonality in the movement of goods.
- To help manage the inventory of the firm, by giving a better understanding of which goods to keep in stock at which times of the year.

## **BACKGROUND OF THE PROBLEM:**

B.C.Brothers Stationery deals with both businesses as well as end-to-end customers on a day-to-day basis. During Covid, as people were unable to leave their homes, there was a sharp increase in the number of online transactions. People started purchasing books, pens and other items online instead of going to the store. Now, even in a post-Covid era, this trend has not entirely subsided. B.C.Brothers Stationery is facing an issue where its customer base, particularly the one comprising of students has declined post-Covid.

Additionally, the B2B segment of the firm seems to have become saturated, with the firm already supplying goods to most other businesses in its local area.

Mr Bhattecharjee wanted to expand the business into other parts of the city. However, space in the city is both limited as well as very expensive. Thus, this would not be possible without significant capital investment.

Therefore, to manage costs as well as better manage their inventory, Mr Bhattecharjee wants to perform an analysis of the sales of the firm and how each item contributes to it.

## **PROBLEM SOLVING APPROACH:**

- *Details about the methods used with Justification*

This report aims to look at how various items contribute to the total sales. As the firm stores all its data in the form of paper records, the first step would be to computerize all these records.

A basic Pareto analysis would be done to understand the items that majorly contribute to sales. This would also serve to narrow down the number of products to focus on.

Line charts will be used to figure out the trends in the total demand and how it varies on a week-by-week basis.

The firm works with both businesses as well as retail customers. Pie charts will be made to understand the percentage contribution between the two. Additionally, another aim is to differentiate the retail customers into school students, university students and office workers, and further form pie charts to understand the percentage contribution of each. Though, this latter objective may not be possible depending on the type of data stored by the business.

- *Details about the intended data collection with Justification*

The following data will be collected to aid in the above analysis:

1. Sales receipts for B2C transactions
2. GST Tax invoices for B2B transactions.

These receipts will help to understand the day-to-day sales of the firm, which forms the basis of all further analysis.

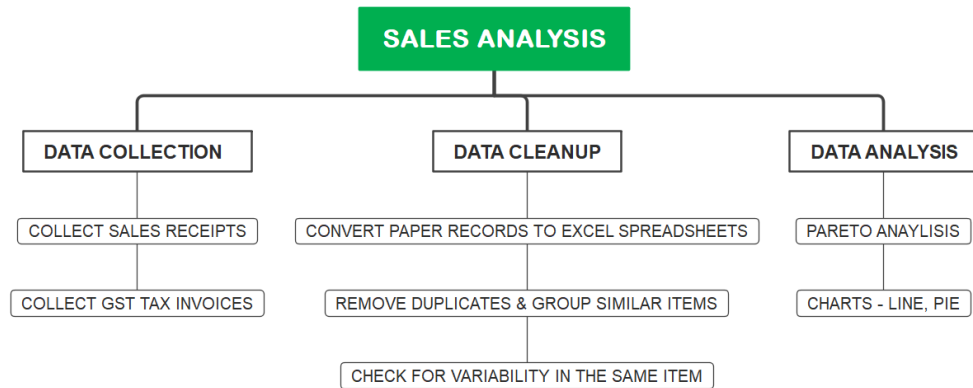
The data will be collected for a period of one month.

- *Details about the analysis tools with Justification*

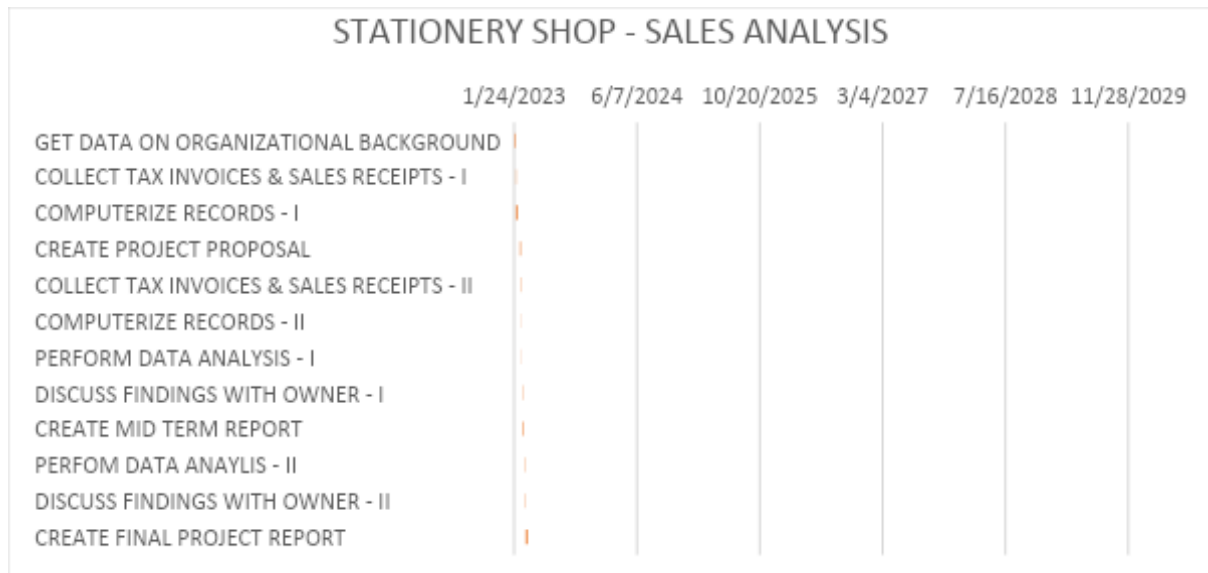
Excel will be the main tool for data analysis. The small size of the firm will mean a small dataset. In addition, it provides excellent built-in support for graphs and other data analysis tools.

## **EXPECTED TIMELINE:**

- *WORK BREAKDOWN STRUCTURE*



- *GANTT CHART*



## **EXPECTED OUTCOME:**

At the end of the project, the involved parties should come out with a clear understanding of how to better understand the firm's inventory. Any trends in the seasonality of demand will also be revealed.

Computerising the firm's records will help highlight the usefulness of digital bookkeeping and data analysis.