

PROJECT PROPOSAL OF BUSINESS DATA MANAGEMENT

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STATISTICAL ANALYSIS OF CEMENT TRADERS FIRM USING BUSINESS DATA-A CASE STUDY

Executive summary

India has a lot of potential for developing the infrastructure and construction sector and the cement sector is expected to largely benefit from it. Due to some of the recent major initiatives such as the development of smart cities, it is expected to provide a major boost to the sector. Presently, the biggest demand drivers of cement are these housing and real estate sectors, accounting for about sixty-five percent of the total consumption in India.

Data Analytics helps business optimize their performances. Implementing it into business helps reduce cost by implementing efficient ways of doing business. Effective data management has always been a challenge in growth of business. With proper analysis one can identify the problems and try to minimise it for an overall development of one's business.

The following is the proposal for Business Data Management project consisting of the analysis of business data for a cement traders firm, MBD TRADERS, Rajgir, Nalanda Bihar. It's a B2B and B2C firm which deals with the supply of various type of cement, sand and concrete. Currently it is selling about 10+ products. I will be doing the data analysis for the stated business focusing on optimising performance, boosting sales and prediction of demand/supply pattern. Through analysis of business's data, I will be able to understand the sales and purchase performance of the firm and communicate the insights accordingly to the business.

BACKGROUND OF COMPANY

- Distributer and reseller of various type cement, sand and concrete.
- The founder of dealer firm is MR. VIJAY KUMAR.
- The net worth of this dealer firm is around 5 crore.
- Established in 2015.
- The dealer firm is located in small city Rajgir of Nalanda district in Bihar.
- Small scale business with 1 to 2 employees.
- Major sells to government infrastructure and local distributors and little bit customer.
- Major products are Various type of cement (opc,ppc),sand and concreted etc.
- Has over 10+products
- Uses custom made software for invoicing as well as separate ledgers for sales, purchase, stock and daily expensive.

PROBLEM STATEMENT

1. To reach the target given by the company through improving the sale revenue of the firm, improve credit risk in market and minimise cost incurred.
2. To analysis firm's overall performance over given period of data
3. Minimising transportation cost for delivering product.

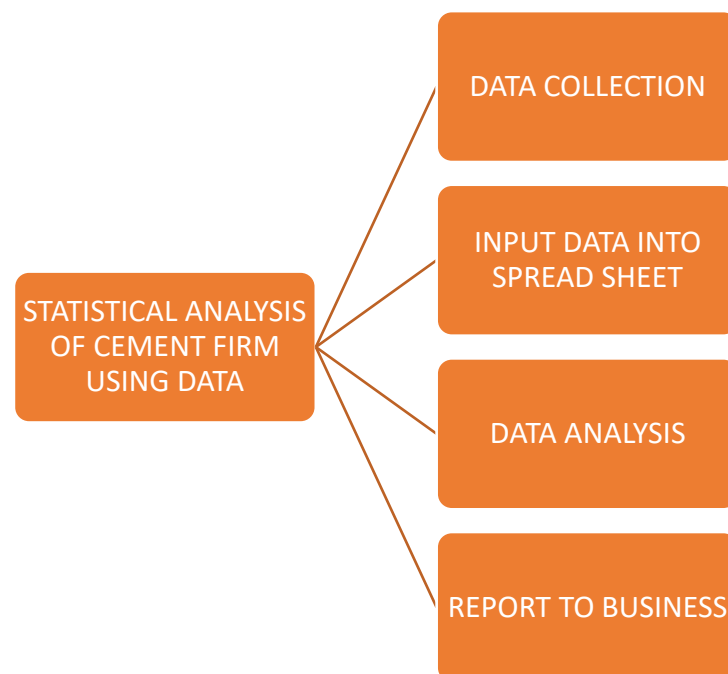
PROBLEM BACKGROUND

As stated earlier, the firm is a small-scale cement firm distributor. Business analysis is mainly through manual operations which is not effective in to reach the target given by the company, sometime firm facing shortage of cement,sand and concrete stock delay in supply chain. Due to this, sometimes the firm has huge stock piling up the storage area but at other times it doesn't have a single cement, sand and concrete to sell for certain products. The firm location is also measure problem in which cost of

transportation charge goes high. If the transportation charge is added to the product, then customer facing high value problem with certain products. that's why demand of cement goes down and target of company does not achieve. Also measured concerned is most of product sells to government infrastructure, In addition, the average

number of days to receive payment from the government body is also increasing (debtor days) which is of major concern.

PROBLEM SOLVING APPROACH



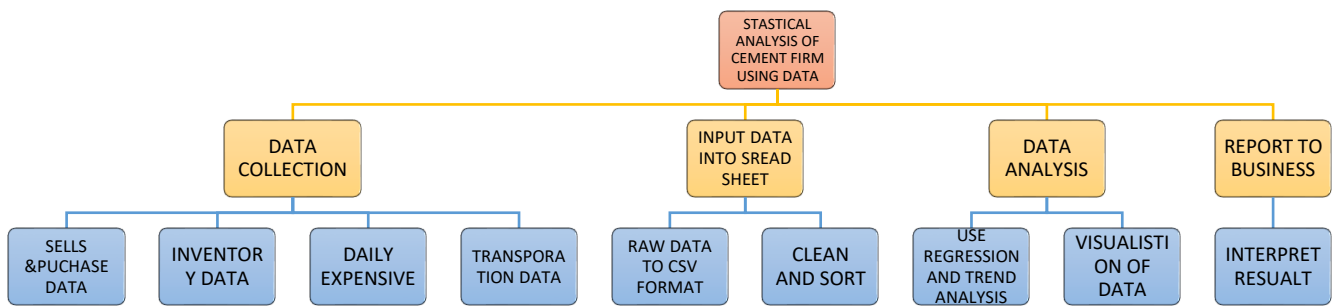
I will be collecting 2 consecutive years of firm's data probably from Jan-2021 to Jan -2022 to analyse the firm's operations. Data will include the sales data of the firm (Sales Invoice details) for understanding the overall sales and type of product that have been sold by firm over the period, purchase data of the firm (Purchase Invoice details from companies) understanding the purchase pattern of the firm, Target data given by upper company ,transportation charge for delivering the product ,Net Customer Outstanding data (Amount a customer has to pay till date) to analyse which customers aren't timely giving payments, Stock data (Individual Stock quantity for products) to

categorize products on the basis of fast-movers, high revenue generating, etc, Daily expenses and Salary data to understand firm's running cost, Net Company outstanding (Amount due to companies) to understand the credit from companies and other data as needed.

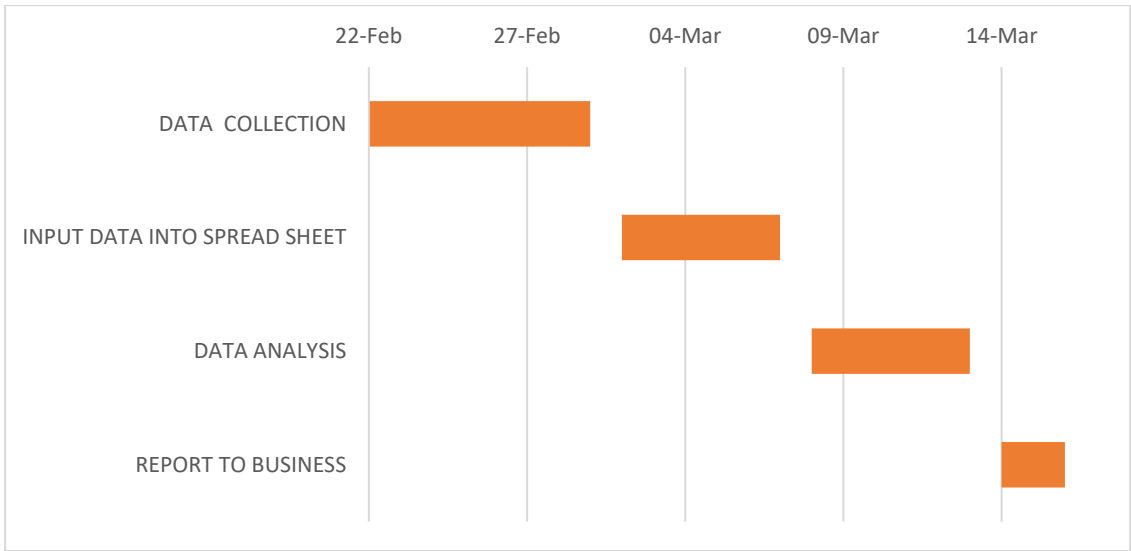
Primarily I will be using Microsoft Excel for data analysis as most of data will be converted into csv format whether it is physical ledgers or custom data from firm's software. Data aggregation will be performed using pivot tables. This will be useful in categorising the data by monthly, quarterly basis.

Through the analysis of sales data, we will get to know about the overall sales figure of the firm from month to month, identify whether there is a seasonal pattern in sales of some products, understand which customers are buying more, which customers are regular and identify the decline in sales by comparison between two years sales. Quarterly analysis of data will help in knowing which quarter firm generated the most revenue. We can perform a Pareto analysis on the sales data. By Purchase data we will get to know the purchases from companies, which company's products is the firm buying more and by combining the sales and purchase data we will calculate the net profit of the firm including other expenses like transportation charges and salaries. From net customer outstanding data, we can infer which government infrastructure has the most credit amount so that the firm will know which government infrastructure are lagging in payments and give the reminders for the overdue payments. Stock data would be useful to determine the opening and closing stocks, whether there are stockouts, etc so that firm can timely order the products form company. Other expenses data will help in calculating the total profit generated by the firm by combining sales and purchase amounts.

EXPECTED TIMELINE:-



WBS CHART



GANTT CHART

Firm has agreed to offer to provide sales data for 2 years. Data collection and converting it into desired format will require about a week as data is in mixed format. Sales, Purchase, transportation cost, Payment data is maintained in physical ledgers while other data is there in custom software. Daily Expense is maintained in separate Day Book. Analysis will take about another 7 days and after the analysis recommendations will take about 1-2 days. Overall, it may take about 18 to 21 days from collection to reporting.

EXPECTED OUTCOME:-

- Central aim is to provide useful insights to the business to boost their revenue.
- Achieve the target given by the upper most company, Highest selling products, minimising transportation cost products with small inventory days, etc, of the firm would be identified.
- As firm dealer in cement ,sand and concrete products, many products would only be on high sale at particular season as the case may be in winter and summer season.
- Data analytics would identify and predict it in better way. Thus, firm would be able to know which products to stock and when to place product on order queue.
- From this problem of stockout, over stock which may lead to financial burden on owner may be minimised.