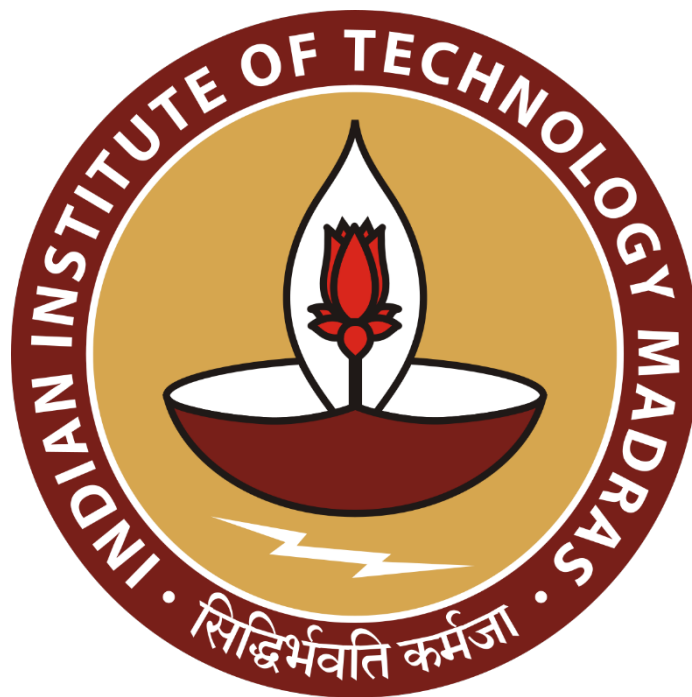


Title: Optimizing Profitability and Stock Management for Amway Business Owner
A Proposal report for the BDM capstone Project

Submitted by

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Declaration Statement

I am working on a Project titled “**Optimizing Profitability and Stock Management for Amway Business Owner**”. I extend my appreciation to Amway Business Owner Sarita Soni, for providing the necessary resources that enabled me to conduct my project.

I hereby assert that the data presented and assessed in this project report is genuine and precise to the utmost extent of my knowledge and capabilities. The data has been gathered from primary sources and carefully analyzed to assure its reliability.

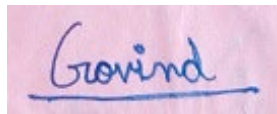
Additionally, I affirm that all procedures employed for the purpose of data collection and analysis have been duly explained in this report. The outcomes and inferences derived from the data are an accurate depiction of the findings acquired through thorough analytical procedures.

I am dedicated to adhering to the principles of academic honesty and integrity, and I am receptive to any additional examination or validation of the data contained in this project report.

I understand that the execution of this project is intended for individual completion and is not to be undertaken collectively. I thus affirm that I am not engaged in any form of collaboration with other individuals, and that all the work undertaken has been solely conducted by me. In the event that plagiarism is detected in the report at any stage of the project's completion, I am fully aware and prepared to accept disciplinary measures imposed by the relevant authority.

I understand that all recommendations made in this project report are within the context of the academic project taken up towards course fulfillment in the BS Degree Program offered by IIT Madras. The institution does not endorse any of the claims or comments.

Signature of Candidate:

A handwritten signature in blue ink on a pink background. The signature is written in a cursive style and reads "Govind".

Name: Govind Soni

Date: 07/09/2023

1 Executive Summary and Title

Title: "Optimizing Profitability and Stock Management for Amway Business Owner"

Executive Summary:

In today's competitive business landscape, Amway Business Owners face challenges related to profitability and stock management. Many customers perceive Amway products as costly, leading to lower sales. Additionally, maintaining an efficient stock of products to take advantage of bulk order offers and ensuring customer loyalty through exceptional service are ongoing concerns. This project aims to address these issues by leveraging data analysis techniques. By analysing past sales data and customer interactions, we seek to optimize product offerings, manage stock efficiently, and enhance customer relationships. This proposal outlines our approach to solving these challenges, with expected outcomes that include increased profitability, reduced stockouts, and higher customer retention rates.

2 Organization Background

Amway, a renowned US-based multi-level marketing (MLM) company, has become a specialist in the B2C and C2C markets. Established in 1959 at Ada, Michigan, United States. The company has grown to become a global leader in the direct selling industry. Founded by Jay Van Andel and Richard DeVos, Amway has achieved a remarkable net worth of 8.1 billion U.S. dollars in 2022, with a presence in numerous countries worldwide.

Amway's diverse product portfolio spans key segments such as Nutrition, Beauty, Home & Living, and Personal Care. This comprehensive range is driven by a commitment to delivering high-quality products that enhance the well-being of its customers.

With a substantial workforce and a robust organizational structure, Amway offers entrepreneurs a unique opportunity to become Amway Business Owners. These owners act as intermediaries, promoting and selling Amway's products directly to consumers. This unique business model fosters a network of entrepreneurs who actively contribute to Amway's success.

3 Problem Statement

- 3.1 **Affordability Perception:** Many potential customers perceive Amway products as expensive, which may be deterring them from making purchases still they purchase due to quality provided. This perception can lead to reduced sales and affects the overall profitability.

- 3.2 **Stock Management:** Efficiently managing the stock of products, especially when dealing with bulk order offers, is crucial. There is a need to determine which products to keep in stock to minimize dead stock while capitalizing on promotions.
- 3.3 **Customer Loyalty:** Building and maintaining customer loyalty is essential for any business. To enhance customer loyalty and satisfaction, it's vital to understand customer needs, provide excellent service.

4 Background of the Problem (200 Words)

The three key problem areas are Affordability Perception, Stock Management, and Customer Loyalty.

The business owner face issues when they have to promote their products and the customer find it costly compared to the market price of the same segment product like Toothpaste or hair oil but the products provided by the company has great quality due to which they used in less amount and still do better than market products which we have to show to the customers by the required demo of the product and the comparison with the daily cost between the products.

There is also a need to identify on which products we have to invest while getting some offers on the products so that neither we face stock outs nor we have dead stock with us which can be solved by identifying the products which is very frequently sold.

Another major issue faced by the business owners is the retention of customer base as many fellow competitors try to capture your customer base by giving them extra discount to capture the customers initially.

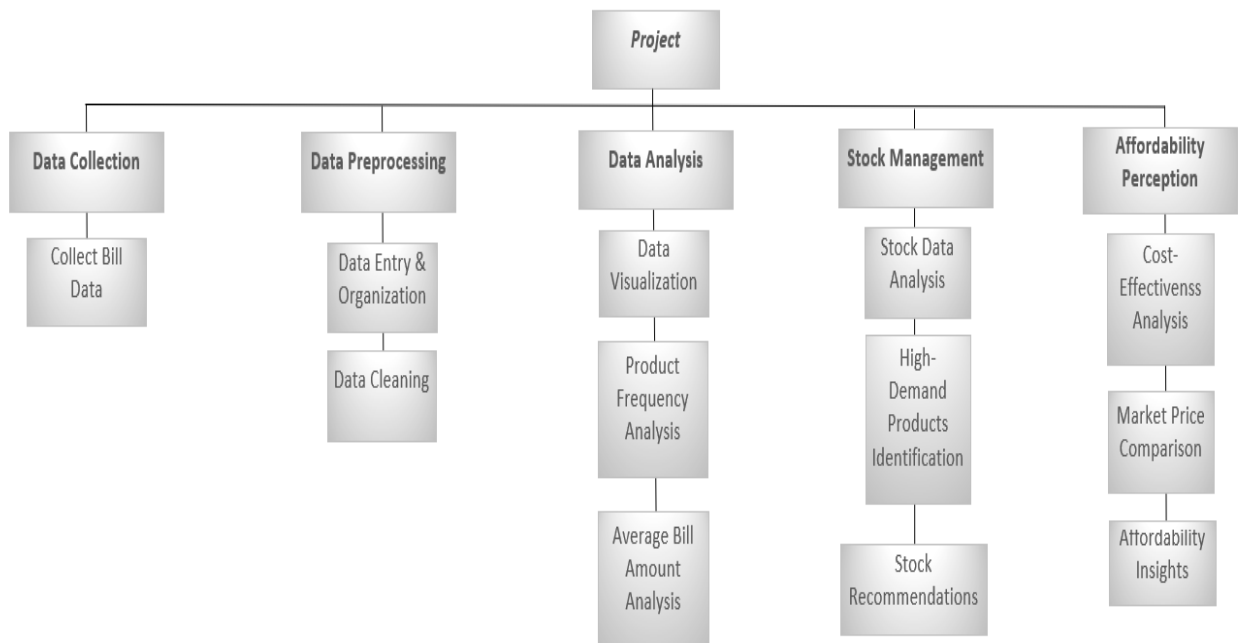
5 Problem Solving Approach (400 Words)

- I am provided with 250 hard copies of the bills of the business owner which has the data about the name of the products, their quantity, their price, order id and date of purchase. Therefore, first of all we will make entries of that data in a spread sheet by either using Google sheets or MS Excel.
- Then we will apply preprocessing on the data according to the needs like impute the null values if any, use transformers if required to change data from categorical data to numerical data for the analysis. The tools used for this task will be Python and its associated libraries like Scipy, Numpy etc.
- Then I would try to visualize the data by using various graphs and try to make a pivot table using Excel such that I come to know which are some of the frequently buying products and what is the average amount of a bill.
- According to the frequency of the product purchase I will suggest the business owner to buy those products more in case of any offer so that they will be more benefitted with less stock outs and reduced dead stock.

- I will find the cost-effective price of a product by dividing the price with the number of days it is used which able to help me decide whether these products are really cost effective or not as compare to the market price, which will eventually help me to solve the issue of affordability perception.
- From the given data I am also planning to find on which products we can give maximum discounts to the user so that the business owner get a loyal customer base by finding the higher margin products.

6 Expected Timeline

6.1 Work Breakdown Structure:



6.2 Gantt chart

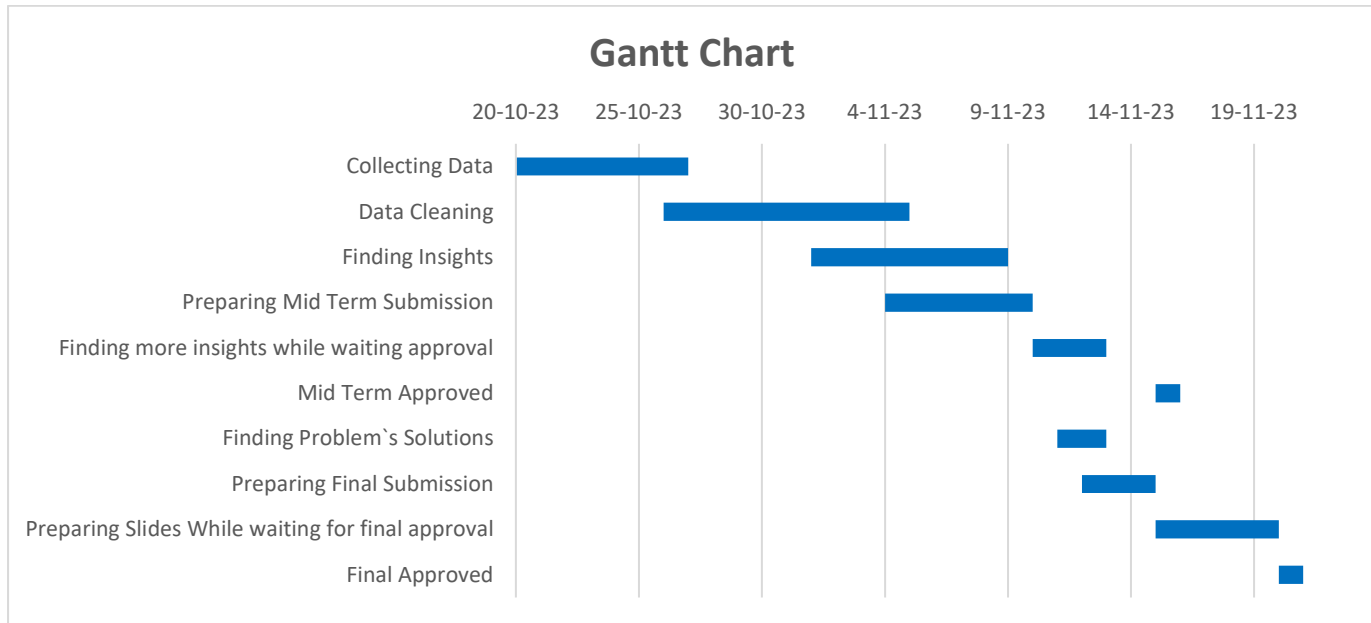


Figure 1 Expected timeline for completion of project.

7 Expected Outcome

Upon the successful completion of this project, we anticipate several significant outcomes that will positively impact Amway Business Owners like Sarita Soni. Our data-driven approach and problem-solving strategies are designed to address the key challenges of affordability perception, stock management, and customer loyalty. Here's what we expect to achieve:

- **Increased Profitability:** Through the analysis of sales data and market comparisons, we aim to provide insights into cost-effective product offerings. This will lead to increased profitability by attracting price-sensitive customers without compromising quality.
- **Efficient Stock Management:** We will identify high-demand products and recommend purchasing strategies to minimize stockouts while making the most of bulk order offers. This optimization will lead to cost savings and reduced dead stock.
- **Improved Decision-Making:** The data analysis and visualizations will equip Amway Business Owners with valuable information for strategic decision-making. They will have a clearer understanding of product performance, customer preferences, and profitability margins.

- **Competitive Advantage:** Implementing our recommendations will provide Amway Business Owners a competitive edge in the MLM market. They can attract more customers with affordability, efficiently manage their inventory, and foster stronger customer relationships.
- **Streamlined Operations:** With optimized stock management and loyal customer base, Sarita Soni and other business owners will experience smoother and more efficient business operations.
- **Customer Satisfaction:** Ultimately, the project aims to enhance the overall customer satisfaction. A happier customer base translates into more sales, repeat business, and higher revenues.