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### **Declaration Statement**

I am working on “Enhancing Business Efficiency and Reducing Operational Costs of Visista Fashions.” I extend my appreciation to “**Visista Fashions**” 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: *Baishali Das*

Name: Baishali Das

Date: 04.07.2024

## Executive Summary

“Visista Fashions” is a B2C online business based in Kolkata. The company offers a variety of women’s clothing, men’s clothing, and home products.

The business is currently facing three major problems: first receiving products from the suppliers, second inventory overloads and lastly returning items by customers. These problems cause overstocking, inventory damage, dissatisfied customers, and low profits for the business.

These problems will be fixed by using data to improve the procurement process, optimize operational costs, and lower the return rate. By using tools like Excel and Python, the company can gain insights into supplier performance, monitor inventory levels, and return rates. This approach will help them maintain stock levels, reducing overstock. It will also help in inventory management and analyzing the return data will identify common problems and help to improve product quality and customer service.

In conclusion, by solving these problems, Visista can improve its profitability and customer satisfaction.

## Organization Background

The company name I am working with is **Visista Fashions**, was started by Mr. Shuvendu Kundu and his brother Mr. Prosenjit Roy on December 1, 2021. During the COVID-19 pandemic, both were working at renowned companies but were facing the fear of layoffs. This tough time made them to think of starting their own business. So, they started Visista as a B2C online business using WhatsApp and Facebook for marketing and sales. Initially Visista was online only, now they are expanding their business to offline also to have a stronger market presence and to connect with more customers. Currently they have a small set up in their house to store all their product, but they are planning to build a proper storeroom for this purpose.

## Problem Statement

The business is facing three major problems. These are the problems listed below:

1. Procuring products from suppliers: This is the main problem of the business, orders from out-of-state suppliers often come with disputed products, and this increased product loss.
2. Inventory overloads: Inventory overloads occur when they order products in bulk, but if these products do not sell as expected, it creates overstock and disputed products also reason for inventory overloads.
3. Return issue: It leads to processing delays, mismanagement of inventory happens and increased operational cost.

## Background of the Problem

The main problem is procuring products from out-of-state suppliers, which often come in defective conditions. The business is based in Kolkata, and the owner said that they always prefer to collect bulk products from local suppliers, but they also like to add new collections, like famous sarees from different states, Rajasthani dohars, or kurtis from Gujarat. Unfortunately, they often received 5-10% disputed products, and sometime this percentage even more. This type of defect creates product loss.

The owner said they are having trouble with inventory management. When they order bulk from out of state suppliers and get disputed products, those products are stored in inventory for months and then become overstocked. Selling those disputed products is quite difficult for them. Return issues also affect inventory management. Return issues create customer dissatisfaction due to product defects or mismatch with expectations. These issues also impact on business profit.

Solving these challenges requires supplier assessment and selection, improving product quality, and reducing inventory overloads lower stock levels and minimize operational costs and return issues.

# Problem solving Approach

To address “Visista Fashions” procurement problem, inventory management need a data driven and systematic approach. This will involve a combination of methods, data collection, and analysis tools, each for their part in controlling inventory and reducing costs.

## 1. Methods Used

Most of the data in Visista Fashions is time-series data, which is good for plotting trend lines and scatter plots. This will help to understand what gets ordered most and help with inventory stock, improve efficiency and cost reduction.

## 2. Intended Data Collection

 For Procurement Analysis:

The following data will be collected for procurement analysis:

1. Order Date
2. Product
3. Quantities Ordered
4. Quantities Received
5. Damage Quantities
6. Cost

These data collection approach will help to identifying trends, seasonal effects, anomalies and improve planning.

 For Inventory Management:

The following data will be collected for inventory management:

1. Cost Price
2. Selling Price
3. Quantities Sold
4. Quantity Ordered

From the above data, key metrics such as revenue, expenditure, gross profit, net profit, product loss, profit margin, and more can be computed.

## 3. Analysis Tools

- **Microsoft Excel:** Excel will be the main tool for Visista Fashions to manage its inventory and procurement data effectively. It will be used for input, order, and

storing of inventory information that allows data manipulation, calculations, and generating tables for tracking stock levels and sales. Different type of charts, Pivot tables will help to visualize trends over time, consumption patterns, data summarization and analysis. Pareto charts visualize the distribution of both the sales and the disputed product so that Visista can decide on what inventory/stock is worth keeping or rather be targeted in the effort of inventory management.

- **Python:** Python, the versatile programming language can be used in many libraries and frameworks like Pandas and NumPy to give away rich data analysis and statistics calculations. Using Python, the Visista not only can work with large datasets but also make complex calculations and extract helpful inventory data.

## Expected Timeline

| BDM Capstone Project          |            |            |          |       |       |       |       |       |      |     |    |    |     |    |    |    |  |  |
|-------------------------------|------------|------------|----------|-------|-------|-------|-------|-------|------|-----|----|----|-----|----|----|----|--|--|
| Grantt Chart                  |            |            | Timeline |       |       |       |       |       |      |     |    |    |     |    |    |    |  |  |
| Activity                      | Start      | End        | Jan      | Feb   | Mar   | Apr   | May   | June  | July | Aug |    |    | Sep |    |    |    |  |  |
|                               |            |            | W1-W4    | W1-W4 | W1-W4 | W1-W4 | W1-W4 | W1-W4 | W1   | W2  | W1 | W2 | W3  | W1 | W2 | W3 |  |  |
| Data Collection               | 01-01-2024 | 01-07-2024 |          |       |       |       |       |       |      |     |    |    |     |    |    |    |  |  |
| Project Proposal              | 20-06-2024 | 30-07-2024 |          |       |       |       |       |       |      |     |    |    |     |    |    |    |  |  |
| Data Preprocessing            | 02-07-2024 | 04-07-2024 |          |       |       |       |       |       |      |     |    |    |     |    |    |    |  |  |
| Data Analysis & Implication   | 02-07-2024 | 10-07-2024 |          |       |       |       |       |       |      |     |    |    |     |    |    |    |  |  |
| Preparing Mid term submission | 01-08-2024 | 03-08-2024 |          |       |       |       |       |       |      |     |    |    |     |    |    |    |  |  |
| Finding Problem Solution      | 07-08-2024 | 15-08-2024 |          |       |       |       |       |       |      |     |    |    |     |    |    |    |  |  |
| Preparing Final Submission    | 01-09-2024 | 05-09-2024 |          |       |       |       |       |       |      |     |    |    |     |    |    |    |  |  |
| Creating Presentation         | 08-09-2024 | 17-09-2024 |          |       |       |       |       |       |      |     |    |    |     |    |    |    |  |  |

## Expected Outcome

- Assist Visista Fashions in solving their procurement problem to reduce operational cost.
- Suggest the best possible solution for their inventory overloads.
- Help to reduce return issues and increase their business profitability.