

Sales & Logistics Optimization Report

Introduction

The report begins by outlining the initial challenge: raw data that lacked actionable insights for decision-makers. To address this, the analyst performed a series of operations to clean, model, and analyze the data. The goal was to extract meaningful information that could help improve and evaluate business performance.

Process Overview

1. Understanding the Data:

- The analyst familiarized themselves with the dataset, identifying key columns such as Order ID, Customer Name, Sales, Profit, Ship Mode, Segment, City, State, Category, and Sub-Category.

2. Cleaning the Data:

- Using Excel, the analyst cleaned the data by:
 - I. Removing Duplicates: Eliminated duplicate entries to ensure data accuracy.
 - II. Handling Missing Values: Addressed missing or incomplete data by either filling in gaps or removing irrelevant rows.
 - III. Ensuring Consistency in Formatting: Standardized data formats (e.g., dates, numerical values, and text) to maintain uniformity across the dataset.

3. Adding Calculations and Columns:

- Additional columns were created, such as Cost of Goods Sold (COGS) and Shipping Time Range, to enhance the dataset for deeper analysis. These calculations were performed using Power Query for efficiency and scalability.

4. Modelling the Data:

- The data was structured and modelled to create relationships between tables (if applicable). Measures like total sales, total profit, and average shipping time were added to facilitate analysis. This step ensured the data was ready for visualization and reporting.

Key Questions Asked

The analyst asked a series of questions to guide the analysis and extract actionable insights. These questions were grouped into four categories:

1. To Enhance Customer Loyalty:

- I. What is the most used ship mode by our customers?
- II. Who are our top 5 customers in terms of sales and order frequency?

2. To Monitor Strengths and Weak Points:

- I. Which segment of clients generates the most sales?
- II. Which city has the most sales value?
- III. Which state generates the most sales value?

3. Performance Measurement:

- I. What are the top-performing product categories in terms of sales and profit?
- II. What is the most profitable product that we sell?

III. What is the lowest profitable product that we sell?

4. Customer Experience:

I. On average, how long does it take for orders to reach our clients?

Visualizations and Dashboards:

The analyst created pivot tables and visualizations to present the findings in an easy-to-understand format.

Key visualizations included:

- Bar charts for top customers by sales and order frequency.
- Pie charts for sales distribution by customer segment.
- Line charts for average shipping times by shipping mode.
- Comparative charts for product category performance (sales and profit).

KPI Calculations

The analyst calculated KPIs to evaluate the performance of sales officials against their targets:

- Sales Target
- Performance