

Supply Chain Data Analysis Project Report

1. Introduction:

In this project, supply chain data was analyzed to understand overall performance and improve decision-making related to sales, shipping, and customer management.

2. Data Source:

The data was obtained from Kaggle, a trusted source for open data in various.

https://www.kaggle.com/datasets/shashwatwork/dataco-smart-supply-chain-for-big-data-analysis/data?select=tokenized_access_logs.csv

3. Objectives:

- Identify high and low-performing markets.
- Analyze customer purchasing patterns and preferences.
- Improve shipping operations and inventory management.
- Reduce financial fraud in orders.

4. Data Analysis:

SQL, Power BI were used to clean and analyze the data and create interactive charts. Below is a summary of the key findings:

- **Top countries by order profit:** The United Arab Emirates and France have the highest profit margins.
- **Top-selling categories:** Apparel and Sports are leading in sales.
- **Payment methods:** Bank transfers are the most popular payment method among customers.
- **Performance by segment:** Corporate customers generate the highest profit (52%).
- **Fraud:** Mexico and Brazil are among the countries with the highest suspected fraud cases.

5. Recommendations:

- **Focus on corporate customers:** Since corporate clients account for the largest portion of profits, specialized offers and services should be provided to ensure their satisfaction.
- **Optimize payment options:** Streamline bank transfer processes and offer additional incentives.
- **Explore emerging markets:** Focus on growing the African market by improving distribution and pricing.
- **Enhance anti-fraud measures:** Improve fraud detection tools, especially in high-risk markets.
- **Optimize inventory for profitable categories:** Increase stock for the most in-demand categories to meet growing needs.

6. Conclusion:

This data analysis highlights areas where the company can improve, such as strengthening relationships with corporate clients, seizing opportunities in emerging markets, and optimizing logistics operations. Implementing these recommendations will help the company enhance profitability and reduce risks.