Module 4 Project

The DataViz Challenge - Transforming EDA Projects to Dashboards

Create a Stunning Tableau Desktop/Tableau Public/PowerBI Dashboard from the same dataset on which EDA was performed for the capstone project.

Problem Statement:

The SCMS (Supply Chain Management System) Delivery History Dataset contains extensive data on the delivery of pharmaceutical and medical products across various countries. The objective is to leverage Tableau Desktop/Tableau Public/PowerBI to uncover patterns, trends, and potential bottlenecks in the supply chain process.

Through this analysis, we aim to gain insights into delivery performance, cost management, and the efficiency of product distribution. The ultimate goal is to identify actionable insights that can drive improvements in supply chain operations, reduce costs, and enhance the timely delivery of critical medical supplies.

Dataset Selection:

For this project, I have chosen the **"SCMS Delivery History Dataset".** The SCMS Delivery History Dataset is a rich collection of records detailing the end-to-end delivery process for healthcare products, ranging from order placement to final delivery. This dataset is ideal for a comprehensive analysis of supply chain dynamics as it includes extensive information on various stages of the delivery process, product details, financial aspects, and logistical considerations. By leveraging this dataset, the analysis will address multiple dimensions of supply chain performance, offering a holistic view of the operational efficiency and challenges faced by SCMS.

Dataset Details:

- **Dataset Name:** SCMS Delivery History Dataset

- **Total Rows:** 10,324 entries

- **Total Columns:** 33 columns

- **Dataset Source: SCMS_Delivery_History_Dataset.csv - Google Drive**

Key Attributes:

1. **ID:** Unique identifier for each logistics record.

2. **Project code:** Code representing the project or initiative tied to the shipment.

3. **PQ #:** Price Quotation reference number.

4. **PO/SO #:** Purchase Order or Sales Order associated with the shipment.

5. **ASN/DN #:** Advanced Shipment Notice or Delivery Note reference.

6. **Country**: Destination country for the shipment (e.g., Côte d'Ivoire, Vietnam).

7. **Managed By:** Specifies which team manages the project (e.g., PMO - US).

8. **Fulfill Via:** Method of fulfillment, such as direct drop shipment.

9. **Vendor:** INCO TermIncoterms defining the shipment agreement (e.g., EXW, FCA).

10. **Shipment Mode:** The mode of transportation used (e.g., air).

11. **PQ First Sent to Client Date:** The date the Price Quotation was first sent to the client (some records indicate "Pre-PQ Process").

12. **PO Sent to Vendor Date:** The date the purchase order was sent to the vendor.

13. **Scheduled Delivery Date:** The planned date for delivery.

14. **Delivered to Client Date:** The actual date the shipment was delivered.

15. **Delivery Recorded Date:** Date when delivery was recorded.

16. **Product Group:** General classification of the product (e.g., HIV test, ARV Pediatric).

17. **Sub Classification:** Further categorization of the product.

18. **Vendor:** The company supplying the goods (e.g., RANBAXY Fine Chemicals LTD, Aurobindo Pharma Limited).

19. **Item Description:** Detailed description of the item being shipped.

20. **Molecule/Test Type:** The type of test or pharmaceutical molecule (e.g., HIV, Nevirapine).

21. **Brand:** Brand name of the product (e.g., Generic)

22. **Dosage:** The dosage strength of the pharmaceutical product (if applicable).

23. **Dosage Form:** The form in which the product is delivered (e.g., test kit, oral suspension).

24. **Unit of Measure (Per Pack):** The number of units per pack.

25. **Line Item Quantity:** The total number of units shipped.

26. **Line Item Value:** The total value of the line item in the shipment.

27. **Pack Price:** Price per pack of the item.

28. **Unit Price:** Price per individual unit of the item.

29. **Manufacturing Site:** The location where the item was manufactured (e.g., Ranbaxy Fine Chemicals LTD, Aurobindo Unit III, India).

30. **First Line Designation:** Indicates whether the product is designated for first-line use.

31. **Weight (Kilograms):** The weight of the shipment.

32. **Freight Cost (USD):** The cost of shipping the item in U.S. dollars.

33. **Line Item Insurance (USD):** Insurance cost for the line item, if applicable.

Problem Areas to Explore:

1. Which country has the highest sales and orders?

2. To identify trends and patterns in sales and orders.

3. Analyse the composition of different shipping modes

4. Correlation between orders and sales.

5. Global distribution of orders.

EDA performed Colab notebook link:

https://colab.research.google.com/drive/1MdfexnmKO8Eq5RB2U3uv4kKK6pdy0u12?usp=sharing

Final Dataset used:-

https://docs.google.com/spreadsheets/d/1ym4C2wdhsjUji1EX2k3t6j6K5eJZEy RI/edit?usp=sharing&ouid=109799084320879661816&rtpof=true&sd=true

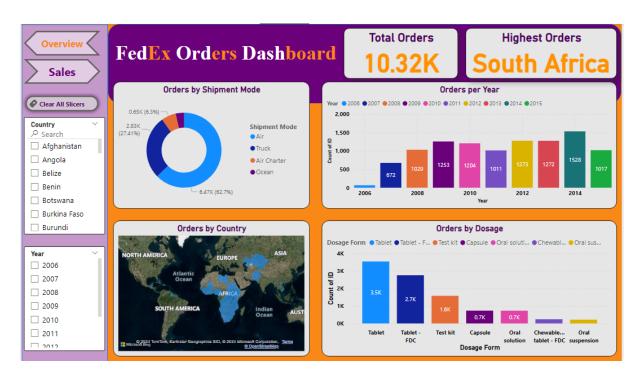## Divide the visualization findings into 3 categories or reports:

1. Company Overview

2. Orders Report

3. Sales Report

Visualization Reports:

1. Company Overview:

2. Orders Report:

3. Sales Report:

FedEx Sales Dashboard

Total Sales
$1.63bn

Highest Sales
Nigeria

Overview

Orders

Clear All Slicers

Sales per Year

Year ●2006 ●2007 ●2008 ●2009 ●2010 ●2011 ●2012 ●2013 ●2014 ●2015

Sales by Country

Sales by Dosage

Sales by Shipment Mode

$0.04bn (2.98%)

$0.09... (6.3...)

$0.15bn (10.26%)

Vendor
● SCMS from RDC
● Orgenics, Ltd
● Aurobindo Phar...
● MYLAN LABOR...
● HETERO LABS L...

$1.09bn (75.4%)

Year
☐ 2006
☐ 2007
☐ 2008
☐ 2009
☐ 2010
☐ 2011
☐ 2012
☐ 2013

Country
☐ Afghanistan
☐ Angola
☐ Belize
☐ Benin
☐ Botswana
☐ Burkina Faso