# **Project Report: Sales Analytics Dashboard**

## **1. Project Aim:**

The aim of this project is to develop a comprehensive Retail Sales Analytics Dashboard that leverages two primary data sources, namely Orders and Details. The dataset encompasses sales-related information such as Order ID, Category, Region, Date of Purchase, and Transaction Amount. The primary objectives include data preprocessing, connecting and shaping the source data, building a relational model, adding calculated columns and measures, and designing an interactive and insightful report.

## **2. Tasks Performed:**

The following tasks were executed as part of the project:

1. **Connecting and Shaping the Source Data:**

* Integrated data from Orders and Details datasets to form a cohesive dataset.
* Cleaned and transformed data for consistency and coherence.

1. **Building a Relational Model:**

* Developed a relational model to establish connections between different data entities.

1. **Adding Calculated Columns and Measures:**

* Implemented calculated fields such as Total Sales to enhance data insights.

1. **Designing an Interactive Report:**

* Created an intuitive and user-friendly dashboard with interactive features.

## **3. Overview of Dashboards:**

The Landing Dashboard serves as the Executive viewpoint, offering comprehensive insights into sales and profit trends. It features key performance indicators (KPIs) designed for comparing current sales performance against the preceding month. Additionally, the dashboard provides a detailed view of sales performance across distinct product categories, enhancing the granularity of analytical assessments.

### **Executive Dashboard:**

This dashboard facilitates comprehensive visibility and analytics pertaining to global sales performance, presenting dynamic insights into monthly sales trends and the nuanced breakdown of sales and profit metrics within distinct product categories.

#### **Key Performance Indicators (KPIs) cards:**

1. Total Sales with present month sales compared with previous month
2. Total Profit with present month profit compared with previous month
3. Total Units Sold with present month quantity compared with previous month

#### **Insights:**

* Total profit booked in 2018 is 8.5% before tax which is at par with the retail industry standards.
* Average Cart Value (ACV) is $78.

#### **Visual Representations:**

Pie charts representing Sales by Category, Profit by Category, and Sales by Payment Mode.

#### **Insights:**

* Maximum sales was generated by “Electronics” Category but overall profit obtained was maximum from “Clothing”.
* Customers have selected multiple payment methods with “COD” being the most preferred payment mode.

#### **Trend Analysis:**

A sales and profit trend chart is developed to visualize the trend in sales and profit margins at each month.

A chart representing profit by sub-category is developed to identify high margin products.

#### **Insights:**

* Maximum sales was generated by “Electronics” Category but overall profit obtained was maximum from “Clothing”.
* Customers have selected multiple payment methods with “COD” being the most preferred payment mode.

### **Regional Sales Dashboard:**

This interactive dashboard has been specifically crafted to cater to the informational needs of Regional Sales Managers, providing a detailed and nuanced understanding of the prevailing sales dynamics within their respective regions. By leveraging comprehensive data visualization techniques, this tool allows managers to discern the intricate nuances of sales trends, pinpointing the top-performing categories in their regions. Furthermore, it facilitates a meticulous exploration of high-margin categories within each city or region, enabling a discerning analysis of sales contributions from sub-categories at different regional levels. In essence, this dashboard serves as a robust resource for Regional Sales Managers to make informed decisions and strategize effectively based on the intricacies of their regional sales landscapes.

#### **Key Performance Indicators (KPIs) cards:**

1. Most profitable city and least profitable city
2. Top/bottom 3 cities by sales

#### **Insights:**

* Indore (Madhya Pradesh) is the most profitable city even though Maharashtra has registered highest sales
* Sales from Uttar Pradesh is less compared to other regions with similar population density

#### **Visual Representations:**

Interactive map to display sales by region, Sales and Profit percentage distribution across the regions and profit breakup by category at regional level.

#### **Insights:**

* Madhya Pradesh is performing well in terms of overall sales and profit generation
* Regions like Rajasthan and Andhra Pradesh has witnessed very low sales with declining margins

## **Conclusion:**

This Sales Analytics Dashboard provides a holistic view of sales performance, enabling stakeholders to make informed decisions. The executive dashboard focuses on overall performance, while the regional dashboard offers detailed insights for strategic planning and optimization. The interactive and visually appealing design enhances user experience and facilitates data-driven decision-making.