**Project Report: Sales Data Analysis and Dashboard**

**1. Introduction**

This report presents an end-to-end analysis of a company's historical sales data, targeting the identification of key revenue drivers, detection of seasonal sales trends, and actionable strategies for improving business outcomes. Using Excel and Power BI, we built interactive dashboards to visualize insights and foster data-driven decision-making.

**2. Data Collection & Preparation**

* **Data Source:** Sampled a Superstore Sales data set with columns: Order Date, Region, Category, Sub-Category, Sales, Quantity, and Profit.
* **Data Cleaning in Excel:**
  + Removed duplicates to ensure accuracy.
  + Handled missing values by filtering and appropriate replacement.
  + Standardized date format and ensured consistency in category names using Excel text functions.
* **Preprocessing:**
  + Added derived columns for Month, Year, and Quarter using Excel formulas.
  + Structured data for flexible analysis via PivotTables.

**3. Data Analysis & KPI Identification**

* **PivotTable Findings:**
  + Generated pivot tables for Total Sales by Month, Sales by Category and Region, and a Profit vs Sales comparison.
* **KPIs Defined:**
  + Total Sales
  + Total Profit
  + Monthly Sales Trend
  + Top Performing Categories
  + Region-wise Sales Distribution
* **Excel Visualizations:**
  + Column Chart for monthly trend.
  + Pie Charts for sales breakdown by category/region.
  + Slicers and conditional formatting to enhance interpretability.

**4. Power BI Interactive Dashboard**

* **Dashboard Construction:**
  + Imported cleaned Excel data into Power BI.
  + Built visuals: Line Chart (Monthly Trend), Bar/Stacked Bar (Category, Region), TreeMap (Sub-Category Sales), and KPI Cards (Total Sales, Profit, Orders).
  + Added interactive filters (slicers) for Month, Region, and Category.
  + Enabled drill-throughs for in-depth analysis.
  + Employed consistent theming and informative titles for clarity.

**5. Key Findings & Recommendations**

* **Key Insights:**
  + Sales peaked in Q4, indicating a seasonal surge.
  + Certain categories consistently outperformed others in sales and profit margin.
  + Notable regional variances highlight growth opportunities.
* **Actionable Recommendations:**
  + Boost inventory for high-demand products in peak months and regions.
  + Promote underperforming categories/regions through targeted campaigns.
  + Monitor profit margins to optimize discounting strategies.

**6. Documentation & Deliverables**

* **Final Outputs:**
  + Power BI Dashboard (.pbix)
  + Comprehensive Summary Report (PDF/Word)
  + Cleaned Excel Workbook with PivotTables and Charts
  + Screenshots and user documentation for dashboard navigation