

PANKAJ SINGH- 108 EVENING-BATCH



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## ASSIGNMENT DESCRIPTION: POWER BI DASHBOARD FOR SALES ANALYSIS

#### **OBJECTIVE:**

The goal of this project is to design an interactive Power BI dashboard that provides comprehensive insights into sales performance. The dataset includes information on sales values, product details, salesperson descriptions, and regional data, offering a multidimensional view of business operations. By leveraging Power BI's robust visualization and data transformation capabilities, the dashboard aims to empower stakeholders to make data-driven decisions effectively.

#### METHODOLOGY

The methodology involves systematically preparing and analyzing the dataset to achieve meaningful insights. First, the dataset structure is assessed to understand the relationships between sales data, product details, region information, and salesperson assignments. Data cleaning is performed to address missing values, duplicates, and inconsistencies.

A unified region table is created from multiple workbooks, while salesperson data is enriched using the provided PDF file. Relationships between tables are established in Power BI to ensure an integrated view. Key visualizations, including bar charts, line charts, and maps, are developed to highlight trends, regional performance, and product analysis.

Filters and slicers are incorporated for interactive exploration, and KPIs display essential metrics such as total sales and average sales. The dashboard is designed to accommodate new data seamlessly for ongoing usability.

# MAKE SURE YOU VISUALIZE WHAT YOU REALLY WANT, NOT WHAT SOMEONE ELSE WANTS FOR YOU

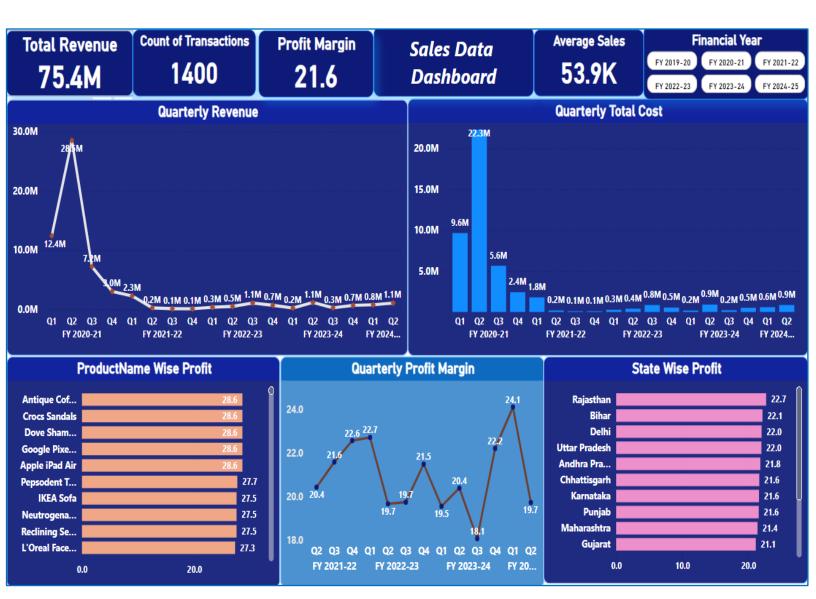
- JERRY GILLIES -

#### REQUIREMENT ANALYSIS

A The dashboard aims to address specific business questions and provide actionable insights through visualizations and analytics. Key requirements include the ability to analyze total sales by region, track monthly, quarterly, and yearly trends, and evaluate product performance across categories and subcategories.

A clean integration of sales and regional data is necessary for accurate geographic insights, while salesperson data should link directly to their corresponding regions for granular analysis.

Visualization requirements include bar/column charts for region and product sales, line charts for trends, and maps for geographic insights. The dashboard must include interactive filters and slicers to enable users to drill down into specific dimensions. KPIs are essential to summarize critical metrics like total sales and sales averages at a glance, ensuring a comprehensive and user-friendly dashboard.



#### Sales Data Analysis

As per the quarterly revenue and total cost charts, revenue has been continuously declining very sharply after the Q2FY21 on a quarterly basis coupled with decline of total cost in that same corresponding period. It may be on account of various macro and micro economic factors like economic slowdown, sectoral recession, declining demand for products, change in customer taste perference, rising competition, lack of research or innovation in offerings, cyclicity etc. All these factors are collectively impacting the bottom line of the business and making it highly volatile in that period under the consideration

The above revenue issue can be overcome by improving demand for its products via marketing and advertisement, doing new and better products through research or innovations, focusing more on-demand products like antique coffee table, crocs sandals, dove shampoo, apple ipad etc, as well launching incentive plans for its dealers, strengthening distribution network across top performing states such as Rajasthan, Bihar, Delhi and Uttar Pradesh and reduce or optimize inventory of slow moving items such as furniture, cartridges, face creams etc. and also downsize operations in state such as Bihar, Goa and Telangana etc. and relocating resources to high performing regions.

By the implementation of above strategy, revenue is expected to rise gradually, increased focused on core business products and regions, high value-addition products inclusion, streamlining of operations, cost optimization and expenses rationalization. All this will ultimately leads to increased revenue margin improvement going ahead.



### Product Data Analysis

As per revenue by product category chart, Furniture, Electronics, and Home Appliances emerge as the top contributors, generating 28.1M, 25M, and 17.7M, respectively. Conversely, categories such as Stationery, Personal Care, and Groceries are underperforming, contributing only 0.5M, 0.4M, and 0.1M, respectively. From a profitability standpoint, the leading categories are also substantial contributors to overall profits, with Furniture, Electronics, and Home Appliances accounting for 37.2%, 33.2%, and 23.4% of total profits, respectively. Meanwhile, the lagging categories provide minimal profit margins.

Further analysis of average sales contribution highlights the dominance of Electronics (92.4K), Furniture (84.1K), and Home Appliances (70.3K). In contrast, Stationery (6.8K), Personal Care (4.9K), and Groceries (0.9K) make negligible contributions. At a granular level, specific products such as iPad Air, Leather Sofa, Reclining Sofa, and Executive Desk have been identified as key revenue drivers within these top-performing categories

Furniture, electronics, home appliances are core product categories and special focus on these categories and strategically reducing reliance on categories such as stationary, personal care and groceries can improve overall profitability and streamline operations. Prioritizing high-performing products, such as the iPad Air and Executive Desk and sticking to core, high-revenue categories, and phasing out underperforming segments will have a substantial positive impact on long-term revenues and margins.



### Region Data Analysis

Based on the revenue by state chart, Rajasthan, Uttar Pradesh, Punjab, and Andhra Pradesh are the top revenue-generating states, contributing 8.4M, 8.1M, 7.7M, and 6.4M, respectively. These states are not only significant in terms of revenue but also show strong profit contributions, with profits of 1.9M, 1.8M, and 1.7M reported for Rajasthan, Uttar Pradesh, and Punjab, respectively. In contrast, states like Delhi, Goa, and Bihar are the least contributors to revenue, signaling potential areas for operational consolidation.

When analyzing revenue by salesperson, Zain Malik, Harpreet Singh, Ravi Jain, and Sanjay Yadav have emerged as the top contributors, generating 5.8M, 5.5M, 5.4M, and 4.4M in revenue respectively. However, a separate analysis of quantity sold highlights different performers with Bhavash Shah, Ajay Kumar, Praveen Shetty, and Zain Malik have sold the highest quantities, with figures of 250 units, 200 units, 197 units, and 177 units, respectively.

So, it can be concluded that Rajasthan, Uttar Pradesh, Punjab and Andhra Pradesh are pivotal for revenue generation and special focus on them with incentive plans should be granted to sales person in this states. This step would could further boost revenue and profit margins. Moreover, it is better to consolidate or relocate resources from states like Delhi, Bihar and Goa. There is a need to assess product performance and stock distribution across states to align with sales potential. By considering above steps, it can strengthen revenue strategies, optimize resource allocation, and incentivize top-performing salespersons for sustained

## Thank You