**ANALYZING SALES TRENDS AND PROFITABILITY USING EXCEL.**

**INTRODUCTION**

* In today’s fast business environment, understanding sales performance and profitability is essential for strategic decision-making.
* This project focuses on developing a comprehensive and interactive Excel dashboard designed to analyze sales trends and profitability metrics.
* The dashboard serves as a visual reporting tool that helps stakeholders easily interpret complex data, identify trends, and make informed business decisions.

**OBJECTIVES**

* Design an interactive and visually appealing Excel dashboard.
* Analyze monthly and quarterly sales trends.
* Identify top-performing products, regions, and salespersons.
* Evaluate profitability through key financial metrics.
* Enhance decision-making through dynamic filtering and data visualization

**Statement of the Problem**

* In today’s competitive business environment, organizations generate large volumes of sales data daily, yet many still struggle to extract meaningful insights that drive strategic decisions.
* Many small and medium-sized businesses rely heavily on Microsoft Excel for data management, yet few leverage its full potential to build dynamic dashboards that offer real-time analysis.
* This project addresses the need for a powerful, user-friendly Excel dashboard that enables users to analyze sales trends and profitability.

**TOOLS AND TECHNOLOGIES**

* This project was developed using Microsoft Excel. Core tools included Pivot Tables and Charts for dynamic summarization and visualization of data. Excel formulas like SUM, SUMIFS, AVERAGE and AVERAGEIF, were used to perform calculations and data lookups.
* Interactive elements like Slicers and Timelines allowed users to filter the data by date, region, or product category.
* Charts such as line graphs, column charts, and pie charts visually represented sales performance and trends.

**DATA SOURCE**

* The data used is a simulated sales dataset representing transactions over a 12-month period.
* It includes fields such as Date of Sale, Product Name, Category, Region, Salesperson, Units Sold, Unit Price, Total Sales, Cost, and Profit. The dataset contains over 366 rows of data.
* Before analysis, the data was cleaned using Excel. Duplicates were removed, date formats were corrected, missing values were handled, and calculated fields like Total Sales and Profit Margins were created.
* Column headers were standardized, and data validation was applied for consistency.

**DASHBOARD DESIGN**

* The dashboard was designed to be clear, interactive, and easy to navigate. It features a top section with key performance indicators (KPIs) such as total sales, profit, and profit margin.
* The middle section contains dynamic charts—like pie and column graphs—that show sales trends, regional performance, and product contributions.
* Interactive tools allow users to filter data by region, product, or salesperson.

A consistent color scheme enhances readability, while a summary table at the bottom provides detailed data insights. The overall layout supports quick, informed decision-making

**ANALYSIS AND INSIGHTS**

Top Performing Region: West region generated the highest total sales revenue (approximately 27.45%)

Lowest Performing Region: North region had the lowest sales (approximately 22.16%)

-Regional Profit Margins: West region shows the highest average profit margin at 25.63%, while North has the lowest at 24.14%

Top Selling Product: TVs account for 36.09% of total revenue despite representing only 9.32% of units sold

Highest Margin Product: USB Cords show the highest average profit margin (13.45%%)

Lowest Margin Product: Mouse have the thinnest margins (4.83%)

Mouse has the lowest units Sold with 5.13%

While Tablet has 11.66% total units sold for the period of 12 months.

**Top Performer**: Esoesa Ighadosa generated the highest total sales (14.43% of the total sales)

CHALLENGES

Data cleaning required correcting errors, handling missing values, and removing duplicates.

Designing a clear layout without overwhelming users took careful planning.

Performance issues emerged with larger datasets, requiring formula and range optimization.

Ensuring accurate, consistent calculations across multiple filters needed thorough testing.

**RECOMMENDATIONS**

Allocate more sales resources to the West region where ROI is highest

Conduct market research to understand lower performance in North region

Create region-specific promotions for underperforming products

Expand stock of high-margin Game Controllers and TVs

Consider price adjustments for USB Cords and other low-margin items.

Pair high-margin items with slower-moving products

Develop different approaches for each region's customer base

Create marketing campaigns around high-margin items

Develop different approaches for each region's customer base

Use historical data to predict seasonal demand

**CONCLUSION**

This project successfully demonstrated how Microsoft Excel can be used to transform raw sales data into a powerful, interactive dashboard for analyzing trends and profitability.

The dashboard provided clear insights into sales performance, product and regional trends, and financial metrics that support strategic business decisions.