**Excel Data Analysis Project**

I am excited to share an Excel-based project that showcases my analytical skills. This project demonstrates my ability to clean, manipulate, analyze, and visualize data to extract meaningful insights. The dashboard I created provides stakeholders with key information on sales performance across different dimensions. Below, I provide a detailed description of the data, the context of the analysis, the methods used, and the insights gathered.

**Context of the Analysis:**

The dataset revolves around the company's sales data, and the objective was to address various business-related questions, such as:

- Sales performance by product.

- Sales performance by salesperson.

- Sales distribution by year and region.

- Year-over-year growth trends.

The dashboard I created consolidates all these aspects into an easy-to-navigate format, allowing stakeholders to make data-driven decisions quickly.

**Data Cleaning and Preparation:**

The dataset required several cleaning and preparation steps to ensure accuracy:

-Duplicates Removal: I identified and removed duplicate entries to ensure there were no inaccuracies in the analysis.

- Missing Values: I handled missing data using imputation techniques and removed incomplete records when necessary to maintain the integrity of the dataset.

- Data Formatting: Ensured that dates, currency, and numerical values were standardized for consistency and better analysis.

**Analysis Methods:**

I utilized a range of Excel tools and techniques to analyse the data:

- Pivot Tables: These were central to the analysis, allowing me to dynamically summarize the data by product, salesperson, region, and year. The pivot tables enabled quick deep dives into specific areas of interest.

- Conditional Formatting: Applied to highlight trends, such as top-performing products, regions with the highest sales, or periods of peak sales performance.

- Statistical Analysis: Leveraged Excel’s statistical functions (e.g., AVERAGE, SUM, MEDIAN) to derive insights related to sales distribution and performance variability across categories.

- Data Visualization: I used various charts and graphs (e.g., bar charts, line graphs, and pie charts) to create clear visual representations of the data. These visualizations made it easy to communicate key trends and findings to stakeholders.

**Key Insights and Conclusions:**

Based on the analysis, I uncovered several critical insights:

- Top Products: The dashboard highlighted that Bottles and Tonic were consistently the top performers, contributing the most to overall revenue. This suggests a focus on promoting these products could be beneficial for sustained growth.

- Regional Sales Performance: The data showed that Asia and Africa had significantly higher sales than other regions, indicating that this region could be prioritized for further marketing and investment. Conversely, Europe showed potential for growth with targeted efforts.

-Salesperson Performance: The analysis revealed that Salesperson Homer Simpson consistently outperformed others, contributing significantly to the company's overall success. This insight could be used to incentivize and develop other sales staff.

- Year-over-Year Trends: There was steady growth year-over-year, with a notable spike in Year 2013, likely driven by seasonal demand or a successful product launch. This trend suggests a need to prepare for similar periods of high demand in the future.

**Additional Value**:

The dashboard is interactive, allowing users to filter data by specific products, regions, salespersons, or years. This interactivity helps stakeholders answer more specific business questions and adapt their strategies accordingly.

. Conclusion:

This project showcases my ability to handle complex datasets, perform detailed analysis, and present findings in a clear and engaging format. I believe these skills align well with the responsibilities of the Research Coordinator role at 60 Decibels, particularly in measuring and interpreting social impact.