Sales & Marketing Campaign Performance Dashboard for Electronics Products (2022-2024)

1. Introduction :

This capstone project aims to create a sales and marketing analytics dashboard for electronic products. It will track sales performance, marketing campaigns, and key metrics from 2022 to 2024, providing decision-makers with insights into product performance and customer behavior to improve business strategies. The dashboard will focus on products like Tablet Z, Smartwatch, Camera Pro S, Smartphone X, Smart TV QLED, and more, helping maximize revenue and profit.

2. Problem Statement :

In today's competitive electronics market, businesses need clear insights into their sales and marketing data to optimize resources and maximize profits. Traditional reporting methods often fail to provide the granularity needed to make informed decisions. There's a need for a unified platform that integrates data from multiple sources such as **sales, customer data, product details, marketing campaigns, channels, and countries** and presents it in a way that's easily understandable and actionable.

3. Methodology :

The dashboard will be developed using an agile approach to efficiently meet all business requirements. It will utilize key data columns such as factSalesData, Customer, Product, Channel, Country, Sales Rep, Marketing Campaign, and Lead Source as the foundation for analysis.

Key metrics tracked will include:

- Cost, Price, Stock, and Sales for each product.

- Revenue, analyzed by sales, months, lead sources, marketing campaigns, sales channels, session data, and regions.

- Profit, calculated at both product and campaign levels.

- Views and Engagement to monitor customer interactions.

- Average Conversion Rate tracked by channel and region.

- Marketing Campaign Effectiveness, evaluated through sales and lead generation across different countries.

Various visualizations will enhance data interpretation:

- Sparklines for month-to-month sales and profit trends.

- Multiple Line Graphs to compare product sales and marketing performance over three years.

- Earth Graph (using JSON files) to provide a global view of revenue by country and region, facilitating geographic analysis.

4. Expected Outcomes :

The primary outcome is a fully functional dashboard that enables:

- **Enhanced sales performance tracking**: A clear understanding of revenue streams across multiple channels, products, and regions.

- **Data-driven decision-making**: Insights into which marketing campaigns and sales channels are most effective.

- **Market-specific strategies**: Identification of high-revenue countries and regions, enabling targeted campaigns.

- **Product performance insights**: A detailed breakdown of each product's sales and profit to inform future product development and marketing efforts.

5. Technologies and Tools Used :

- Data Visualization Tools: Used to create interactive dashboards with features like sparklines, multi-line graphs, and Earth graph JSON integration.

- Sales and Marketing Data Sources: Data was pulled from Kaggle , and marketing analytics tools (Tableau).

- PowerBI , MS Excel ,usage of Power Query were used for data extraction, cleaning, and visualization.

6. Data Sources :

- FactSalesData: Core transactional data, including sales figures, product details, and campaign results.

- Customer Data: Includes demographic, engagement, and purchasing behavior data.

- Product Data: Stock levels, pricing, product categories, and performance metrics for each product (Tablet Z, Smartwatch, Camera Pro S, etc.).

- Marketing Campaign Data: Details of campaigns run across regions, including ROI (Return on Investment) measures the profitability of a marketing campaign, lead source, and effectiveness.

- Country and Regional Data: Geographical insights based on country-level performance and region-based comparisons using Earth graph JSON data.

7. Risks and Challenges :

Some challenges include:

- Data Accuracy: Ensuring the data is accurate and up-to-date for real-time reporting.

- User Engagement: Ensuring that stakeholders fully utilize the dashboard's features for optimal decision-making.

- Scalability: Designing the dashboard to scale with an expanding product portfolio and customer base over time.

8. Conclusion :

This Sales and Marketing Campaign Performance Dashboard will revolutionize the way businesses monitor their electronic product sales, marketing efforts, and customer engagement across different regions and sales channels. It will provide a comprehensive, real-time view of business performance, empowering decision-makers to enhance profitability and marketing ROI. The insights gained from the analysis of past trends (2022-2024) will be crucial in shaping the future sales and marketing strategies for electronic products.

9. References :

- Kerry Kolosko's website focuses on data storytelling with Power BI, offering tutorials, templates, and examples for advanced visualizations, including custom visuals like Deneb and PlotlyJS. , https://kerrykolosko.com/visualisations/
- Kaggle DataSets , https://www.kaggle.com/abrahammichi
- Youtube
- ChatGpt