

Sales Insights Project Document

Topic - Interactive dashboard using SQL and Power BI

Case - This was about a company which was facing issue to gather accurate business data from periodic sales all over their market regions in india where they were represented by their agents

Company - A Computer Hardware company with representatives across various market regions in India.

Challenge - The company lacked a centralized platform for stakeholders to access and analyze business data. This made it difficult to gain insights into regional performance and identify trends.

Solution: Develop an interactive dashboard using SQL and PowerBI which can provide detailed data for sale and business insights.

Step-by-Step Approach

1. Data Gathering and Analysis -

- ➔ Identify relevant data sources : This was provided in csv file format by the company from their database which was updated from all points of sale.
- ➔ Created SQL queries to extract and transform the data for PowerBI, this involved filtering, aggregating, and joining tables based on requirements.
- ➔ Data was analyzed to understand key performance indicators (KPIs) for each region (e.g., sales by region, revenue by market, product popularity etc).

2. PowerBI Desktop Development -

- PowerBI Desktop was connected to the SQL database and query was imported in power query editor.
- Data model was built by establishing relationships between tables based on common fields (star schema).
- Created calculated columns and measures in DAX language for complex calculations not available in SQL (e.g., year-over-year growth, market share).

3. Dashboard Design -

- Utilized various PowerBI visuals like bar charts, line graphs, maps, and pie charts to present KPIs effectively.
- Implemented slicers, filters, and drill-down capabilities to allow users to explore data by region, product category, time period, etc.

4. Deployment and Sharing: (Required to performed from company's end)

- Publish the PowerBI report to the PowerBI service (online platform) for wider accessibility.
- Control user access and sharing permissions based on roles within the company.
- Train regional representatives on how to use the dashboard to gain insights and make data-driven decisions.

Conclusion -

The interactive dashboard provides regional representatives with real-time access to business data and insights. This allows them to:

- ★ Monitor regional performance against set targets.
- ★ Identify trends and opportunities in their respective markets.
- ★ Compare regional performance with other regions or national averages.
- ★ Make informed decisions about sales strategies, resource allocation, and marketing campaigns.