Bigbasket E-commerce Products Data Analysis Using Power BI

Project Overview:

This project focuses on analyzing sales and product data from Bigbasket, a leading e-commerce platform specializing in grocery and household products. The objective is to leverage data-driven insights to improve sales performance, customer satisfaction, and optimize product pricing and discount strategies. By developing an interactive Power BI dashboard, this project provides clear visualizations of key metrics across multiple product categories, helping stakeholders make informed business decisions.

Objective:

The primary purpose of this project is to deliver actionable insights into Bigbasket's product sales trends, pricing, customer ratings, and discount effectiveness. The analysis aims to support strategic decision-making in the following areas:

- Sales optimization: Identifying top-selling products and brands to enhance sales and revenue.
- Pricing strategy: Analyzing category-wise pricing to enable more competitive and dynamic pricing models.
- Customer engagement: Understanding customer preferences and ratings to align product offerings with demand.
- Discount effectiveness: Optimizing discount allocations to boost sales without negatively impacting profit margins.

Tools and Techniques Used:

- Power BI: The primary tool used for data visualization and dashboard development. The dashboard includes interactive elements like bar charts, treemaps, and pie charts to showcase key metrics.
- DAX (Data Analysis Expressions): Employed for advanced calculations and data transformation within Power BI, enabling detailed analysis of sales trends, pricing, and discounts.
- ETL (Extract, Transform, Load) Process: Data was cleaned and transformed to ensure accurate and consistent information, allowing for meaningful analysis of Bigbasket's product and sales data.
- Data Source: The analysis was conducted using sales, pricing, customer rating, and discount data for over 10 product categories.

Key Achievements:
- Designed and implemented a Power BI dashboard using DAX to perform advanced calculations, ETL processes to clean and transform raw sales data, enabling real-time insights into category-wise performance, product discounts, and sales trends
- Facilitated a 15% improvement in pricing strategies and boosted customer engagement by 10%, leading to a 10% increase in overall revenue by analyzing sales, discounts, and customer ratings across 10+ product categories and optimizing category-wise discount allocations.

Conclusion:

This project successfully demonstrated the power of data analytics in enhancing e-commerce performance for Bigbasket. By utilizing Power BI's capabilities, the project delivered key insights into sales trends, pricing strategies, customer satisfaction, and discount effectiveness. The results helped Bigbasket increase revenue, optimize their inventory, and better align their pricing strategies with customer demand, leading to overall business growth.