E-Commerce Case study Analysis

About Data: We have two months data of an E-Commerce business (October 2019 and November 2019), through which we have derived KPI's, Metrics, performed analysis and stated data driven business insights.

We have two data sets including 1. "Sales Data Ecommerce" and 2. "Promotions" consisting of categorical and numeric fields.

What variables we can derive from the data which can be helpful?

1. Numeric Variables can be: Sales Revenue, Total Number of Customers, Total Events, Date-time, Total Purchase transactions, Total discount, Total discount revenue.
2. Categorical Variables can be: Product Category, Event Type, Brands, State.

Who can use this Dashboard?

1. Executives and Senior Management: Executives can use the dashboard to get an overview of key performance indicators (KPIs) and high-level trends to make strategic decisions.
2. Sales and Marketing Teams: Sales teams can analyse sales performance metrics, identify top-selling products, and monitor customer acquisition and retention.
3. Business Analysts and Data Scientists: Analysts and data scientists can use the dashboard to conduct in-depth analysis, perform predictive modelling, and uncover actionable insights using advanced analytics techniques.

What value would be generated by using this dashboard?

1. **Improved Decision-Making:** By providing real-time access to key performance indicators (KPIs) and actionable insights, the dashboard enables stakeholders to make informed decisions quickly and effectively.
2. **Enhanced Performance Monitoring:** The dashboard allows stakeholders to monitor performance metrics, track progress towards goals, and identify areas for improvement, leading to enhanced organizational performance.
3. **Increased Efficiency and Productivity:** With easy access to relevant data and insights, teams can streamline processes, optimize resource allocation, and improve productivity across various departments.
4. **Better Strategic Planning:** By analysing historical data and trends, executives and senior management can develop strategic plans, set realistic targets, and allocate resources effectively to drive long-term growth and success.

What additional data can be helpful to add more insights and value to the team?

To add more insights and value to the team, you can consider incorporating additional data sources that provide context and deeper understanding of customer behaviour, market trends, and business operations.

Demographic information can be collected such as age, gender, income level, and location to better understand the characteristics and preferences of the customer base. This data can help in customer segmentation and targeted marketing efforts.

Summary And Insight.

Top Selling Brand and category: It has been observed that the top selling brand in terms of Quantity sold is "Samsung" and the best-selling Category is Electronics. In terms of Revenue generation. "Apple" Brand is generating the maximum revenue. However, we can say that these two brands are the most trusted brands among all.

Effectiveness of Promotions: It has been observed that there is not much impact of Promotion on sales. Hence, there is an urgent need to investigate promotion activities.

- Discounts are not much effective as we can clearly observe that the Portion Size of product purchased by customer on discounted amount is much low than the Purchased portion size of product without discount on a particular date.
- It has been observed that on Product ID 871. The maximum sales revenue has occurred on 17 Nov 2019 while the discount on this product was live on 28 Nov 2019. The sales on the date on which discount was live were only $8,247 while the highest sales amount on a particular day have gone up to $43,506. This Indicates that the Discount Schemes is not performing to its full potential. (NOTE: Not Just Product ID 871. This is happening with other products too).

Trend Analysis: It has been observed that the morning time is the peak time customers are placing orders as 42.49% Orders are placed in morning time (6:00 A.M to 11:59 P.M) followed by afternoon time (32.73%). The traffic on App and Browser higher in morning as compared to other part of the day.

Geographical Analysis: The Customers residing in MS state are the highest revenue contributor followed by MD and IA. In WV state the highest Card Abandonment is observed. This is an area of opportunity to improve the promotion practices to increase the conversion rate.

Sales Performance by different channels: The Application Platform and the Browser are generating almost similar Revenue where Application is contributing to 49.11% of the total revenue while the Browser is contributing 50.89% of the total sales revenue.

Recommendations

- Should focus on efficient marketing before the discounting period is made live for increase in sales orders.
- There are around 144K visitors on the sales platform in the month of October and November only 14k Became the customers by purchasing the product. To decrease the cart abandonment rate, efficient promotional activities should be done in the required locations where CAR is high.
- Should Aim at gaining more orders in morning time as the traffic is higher at that time on sales platform.
- Promotion ID c1JgDc2016 is the most efficient Promotion among the all. Need to optimize this promotional activity more where the customers are in majority.