PROJECT OVERVIEW

The data contains a record of an e-commerce business. The goal is to understand the sales insights, factors that affect sales and products as well as how customers interact and review products.

DATA SOURCE

The dataset used in this project was provided by Kaggle.

TOOLS

1. Excel: The dataset was gotten as a CSV, so I used Excel to open it. Go through the dataset to know the information it contains as well as cleaning.
2. SQL: The dataset was loaded to SQL for cleaning and querying.
3. Python: For sentimental analysis
4. Power BI: This tool was used for visualization.

DATA CLEANING

1. Confirming the total normal of dataset and columns.
2. Making sure they all represent their various data type.
3. Checking for duplicates and null values.

EXPLORATORY DATA ANALYSIS

OVERVIEW INSIGHT

1. There are 630 unique customers.
2. Total revenue is £8.40M.
3. The average price per product is £516.43.
4. The average quantity purchased per transaction is 26.
5. The best-selling product category is Sports, generating £1.83M in revenue, followed by:
   1. Home products: £1.70M
   2. Clothing: £1.69M
   3. Electronics: £1.67M
   4. Books: £1.52M
6. Customer Reviews:
   1. 346 customers gave positive reviews.
   2. 147 customers gave negative reviews.
   3. 137 customers gave neutral reviews.
7. Sales Velocity:
   1. Sports products are the fastest-moving.
   2. Books, Electronics, and Home products are moderately moving.
   3. Clothing products are slow-moving.

SALES INSIGHTS

2023:

1. 309 customers
2. Total revenue: £3.93M
3. Monthly growth: +6.70%
4. Best-selling categories:
   1. Clothing – £880,000
   2. Electronics – £860,000
   3. Home products – £840,000
   4. Sports – £720,000
   5. Books – £630,000

2024:

1. 209 customers
2. Total revenue: £3.01M
3. Monthly growth: -2.13%
4. Best-selling categories:
   1. Books – £670,000
   2. Home products – £650,000
   3. Sports – £630,000
   4. Clothing – £540,000
   5. Electronics – £520,000

2025 (January – October, Current year):

1. 112 customers
2. Total revenue: £1.46M
3. Monthly growth: -11.07%
4. Only profitable months: February, March, May, July
5. Best-selling categories:
   1. Sports – £470,000
   2. Electronics – £280,000
   3. Clothing – £270,000
   4. Books – £220,000
   5. Home products – £210,000

CUSTOMER SEGMENT INSIGHTS

1. 169 Potential Loyalists – New customers with promising purchase patterns.
2. 166 Loyal Customers – Repeat buyers who shop frequently.
3. 116 Champions – High-value customers who spend the most.
4. 111 At-Risk Customers – Customers who haven’t purchased in a while.
5. 68 Lost Customers – Previously active customers who have stopped buying.

RECOMMENDATION

1. CUSTOMER RETENTION & ENGAGEMNET STRATEGIES
   1. Offer targeted discounts and loyalty rewards to bring back lost customers.
   2. Send personalized re-engagement emails and promotions to the 111 At-Risk Customers.
   3. Introduce exclusive perks for Loyal Customers and Champions to encourage continued spending.
   4. Offer VIP memberships with early access to sales and premium customer support to Loyal Customers and Champions
   5. For Potential Loyalists, give first-time buyers a discount on their next purchase. Also implement a referral program to encourage them to bring in new customers.
2. ADRESS DECLINING REVENUE TREND
   1. Conduct a customer survey to understand why people stopped buying.
   2. To improve Slow-Moving Categories (Clothing): Run flash sales and limited-time offers, Improve marketing efforts on social media for fashion-related audiences.
   3. Focus on restocking and bundling best-sellers.
   4. Use customer testimonials in marketing campaigns.
3. IMPROVE PRODUCT & CATEGORY PERFORMANCE
   1. Optimize Slow-Moving Clothing Sales by launching seasonal campaigns (e.g., summer/winter collections).
   2. Offer "Buy One, Get One" (BOGO) deals to increase order volume.
   3. Capitalize on Fast-Moving Sports Products by creating bundles with related products.
   4. Optimize Home & Electronics Categories by promoting them as bundles.
   5. Highlight warranty and durability in marketing to build trust.
4. IMPROVE CUSTOMER SACTISFACTION & REVIEW
   1. Address Negative Reviews (147 Negative, 137 Neutral) by analyzing negative feedback and fix recurring issues (product quality, delivery delays, etc.).
   2. Respond to dissatisfied customers with support and refund/replacement options.
   3. Encourage happy customers to leave reviews to boost overall ratings.