Ecommerce Profit Analysis

Yufei Zhang

14/04/2025

1. Analysis Objective & Dataset Overview

- Business question:
 - Where is the most profit coming from?
 - Who contributes the most to it?
- **Dataset:** 1 year of e-commerce customer transactions
- Method: Exploratory and diagnostic analysis
 - Products: Where the profit comes from?
 - Customers: Who generates high-quality orders?
 - Customer vs Products: What behaviour patterns are linked to profitability?

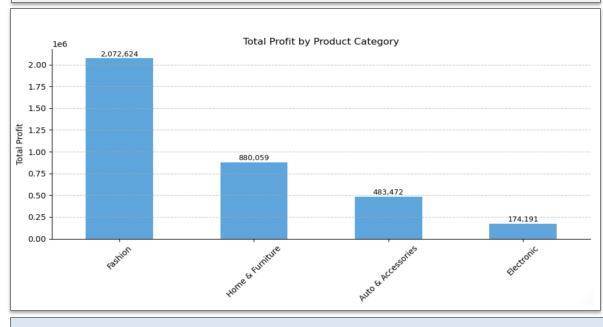
2. Key Insight (1): Where Profit Comes From (By Product)

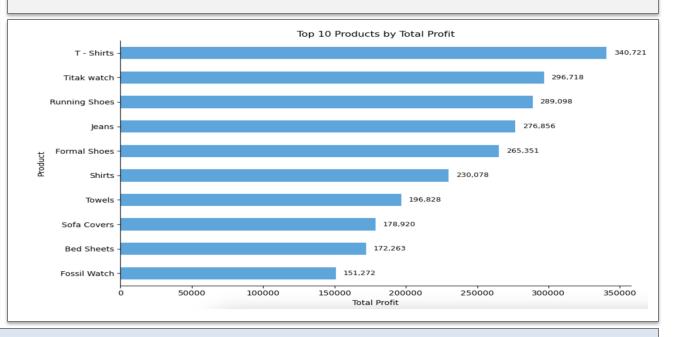
Total Profit by Product Category

- **Fashion** generates over **\$2M** in profit, significantly outperforming all other categories.
- Home & Furniture comes second, but with far less profit.
- Auto & Accessories and Electronic contribute the least.

T-Shirts, **Titak Watch**, and **Running Shoes** are the top individual profit drivers — each generating over **250K**. All **top 10 products** come from the **Fashion** category,

confirming its strategic importance.

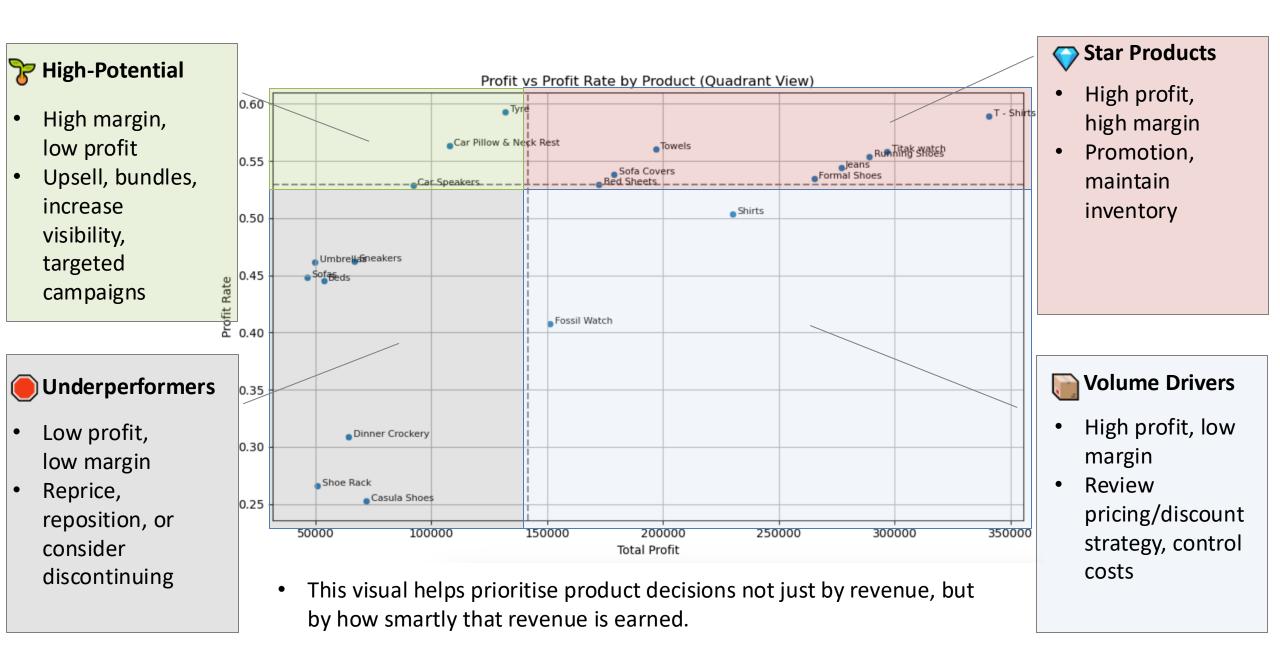




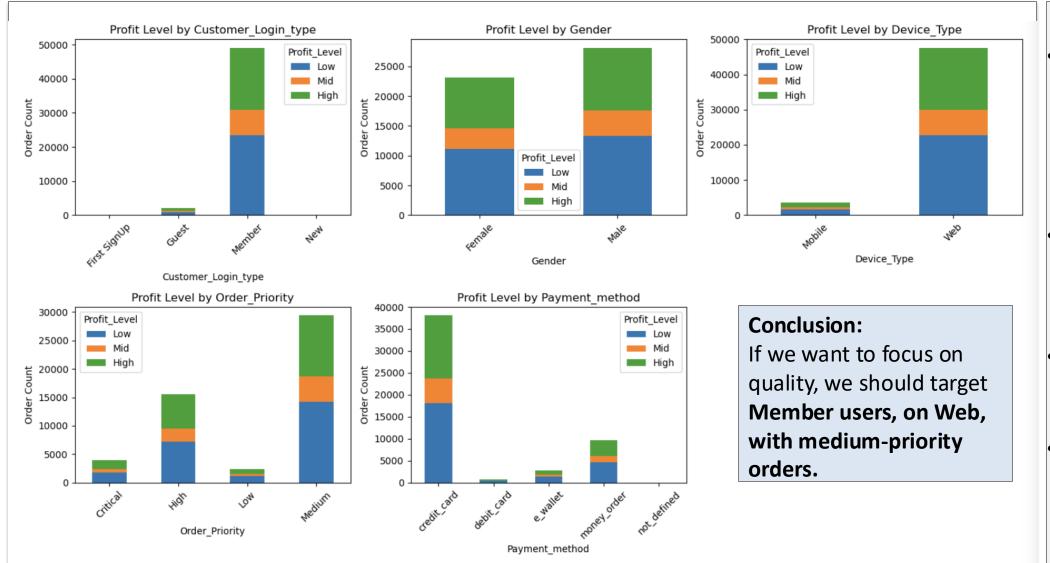
Total Profit by Product

- Fashion is the core profit engine, both in scale and in product-level contribution.
- Prioritising Fashion products in our marketing, pricing, and inventory decisions.

2. Key Insight (1): Where Profit Comes From (By Product)



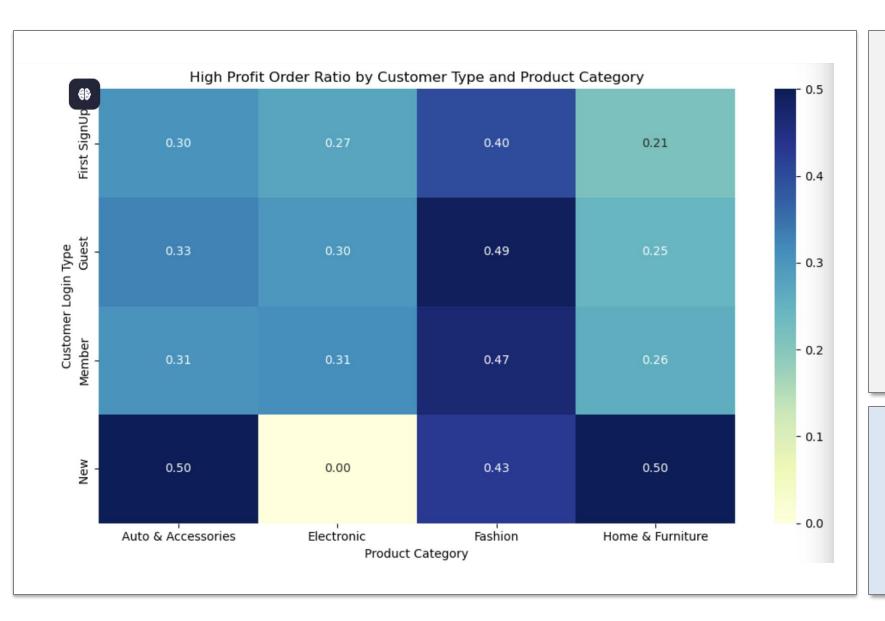
3. Key Insight (2): Who Generates High-Quality Orders



Insights:

- generates the most high-profit orders, indicating strong customer value.
- Web users
 outperform
 mobile in quality
 and quantity
- Medium-priority
 orders are most
 profitable.
- Credit card users
 drive order
 volume, but
 structure is mixed

4. Key Insight 3: Customer × Product Insight



Insights:

- Fashion consistently delivers highprofit orders across all customer segments
- Member + Fashion is a strong and reliable high-margin combination
- Guest users show a weaker profit structure, favoring lower-margin categories
- New users show spikes in niche categories possibly due to promotions

Recommendation:

- Focus targeted promotions on Fashion for Members
- Convert Guest users in Fashion into Members

6. Conclusion & Recommendations

- Product Strategy
- Double down on star products like T-Shirts and Titak Watch
- •Upsell or bundle high-margin, low-volume items like Tyres
- Optimise pricing for volume-driven products like Shirts
- •Reposition or phase out underperformers like Casual Shoes
- Customer Strategy
- •Prioritise Members users, on Web, with Medium-priority orders for better profit quality
- Customer × Product Strategy
- •Focus on the **Member + Fashion** segment for stable, high-profit orders
- •Convert Guest users in Fashion into Members via targeted campaigns

Thank you