Customer Behaviour Analysis

Strategic Insights & Optimization Report

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1. Executive Summary

We have successfully completed a comprehensive analysis of our 3,900-customer dataset to address the company's core challenge: understanding shifting purchasing patterns to drive long-term growth.

By engineering a full-stack data pipeline - cleaning raw data in Python, segmenting customers via SQL, and visualizing trends in Power BI, we have uncovered three critical insights:

1. Revenue Concentration: We are heavily reliant on two key categories (Clothing and Accessories), following a strict Pareto (80/20) curve.

2. The Loyalty Gap: While our subscription rate is currently low at **27%**, data proves that subscribers are significantly more valuable in terms of repeat visit frequency.

3. Operational Risk: A specific logistical failure was identified in the **Outerwear** category, where "Next Day Air" shipping is driving customer satisfaction down to a critical low of **3.54**.

2. Analysis of Sales Performance - The "Vital Few" Drive Our Revenue

Our analysis confirms that revenue is not distributed evenly across our product lines. Using the Pareto Principle, we identified that Clothing and Accessories are the primary drivers of the business.

- The Data: These two categories alone account for the vast majority of transaction volume.

- The Risk: The sharp drop-off in revenue for Footwear and Outerwear suggests these categories are underperforming relative to their potential.

- Stakeholder Takeaway: Inventory management must be prioritized for the top-performing categories. A stockout in "Clothing" would be catastrophic for monthly revenue, whereas we have more flexibility with "Outerwear."

3. Customer Loyalty & Engagement - The 27% Opportunity

One of the most revealing statistics from this analysis is our Subscription Rate of 27%. This means nearly 73% of our customers are transacting without a long-term commitment to the brand.

Why Subscribers Matter ?

We didn't just count subscribers; we analyzed their behavior. The "Average Repeat Visits" analysis reveals a clear trend:

- Across almost every category, Subscribers return to the store more frequently than Non-Subscribers.

- Specific Win: In the Outerwear category, subscribers average 28.0 visits, compared to only 23.8 for non-subscribers.

Stakeholder Takeaway: The data proves that our loyalty program *works*—it drives engagement. The problem is not the program itself, but the *adoption rate*. Our primary marketing goal for Q2 must be converting that 73% of non-subscribers.

4. Operational Health & Satisfaction - Diagnosing the "Shipping Crisis" in Outerwear

Perhaps the most urgent finding comes from our Customer Satisfaction Heat Map. While our overall average rating is healthy (~3.75), a deep dive into shipping methods revealed a specific anomaly.

- The Issue: Customers buying Outerwear who choose Next Day Air are reporting a satisfaction rating of 3.54 - the lowest on the entire board.

- The Contrast: Interestingly, when Outerwear is shipped via Store Pickup, the rating jumps to 3.91.

Stakeholder Takeaway: This is likely not a product issue, but a logistics issue. It is highly probable that rushing heavy items (Next Day Air) is leading to damaged packaging or poor handling. This specific shipping channel is hurting our brand reputation in a high-ticket category.

5. Strategic Recommendations

Based on this data, I propose the following three immediate actions:

1. **Operation "Safe Ship" (Logistics):**
   o Launch a quality assurance audit on "Next Day Air" fulfilment for Outerwear.
   o Consider temporarily disabling Next Day Air for Outerwear items until the root cause of the 3.54 rating is resolved.

2. **The "Clothing Conversion" Campaign:**
   o Target the massive base of non-subscribers who buy Clothing.
   o Since Clothing brings in the most traffic but has lower loyalty penetration than Footwear, converting these shoppers offers the highest ROI.

3. **Inventory Fortification:**
   o Ensure we never stock out of the top 20% of SKUs that drive 80% of our revenue.

Conclusion

This analysis report has transitioned our view of the company from simple sales figures to a deeper understanding of customer behaviour. We now know that our growth lies in converting casual Clothing shoppers into subscribers and fixing the shipping experience for Outerwear buyers.

By addressing these clear data signals, we can expect to see an increase in Customer Lifetime Value (CLV) and a recovery in our Net Promoter Scores (NPS) within the next quarter.