

E-COMMERCE SALES & RETENTION ANALYTICS

UK Online Retail Analysis

Analysis Period: 2024-12-01 to 2025-02-28

Metric	Value
Total Revenue	£1,288,648.56
Total Customers	1,677
Total Orders	3,368
Average Order Value	£21.18
Average CLV	£831.24

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Data Source: UCI Online Retail Dataset
Analysis Period: 3 months
Transactions Analyzed: 67,258

EXECUTIVE SUMMARY

This comprehensive analysis examines 1,677 customers and 3,368 orders over a 3-month period from 2024-12-01 to 2025-02-28. The analysis encompasses A/B testing, cohort retention, customer segmentation, and revenue analytics to provide actionable insights for business growth.

KEY FINDINGS

1. Revenue Concentration:

- Top 20% of customers generate 64.5% of total revenue
- Top 10% of customers generate 50.1% of total revenue
- Strong customer concentration following Pareto principle

2. Customer Segmentation:

- Champions segment drives 52.2% of revenue
- 18.4% of customers classified as Champions
- Clear segmentation enables targeted marketing strategies

3. Retention & Churn:

- Month-1 retention rate: 33.15%
- 39.3% of customers at high churn risk
- £291,240.88 revenue at risk from churn
- 14% churn reduction target identified

4. A/B Testing (Discount Strategy):

- Revenue impact: -13.66%
- Order frequency increased by +10.76%
- ROI: -189.68%
- Recommendation: Do not implement

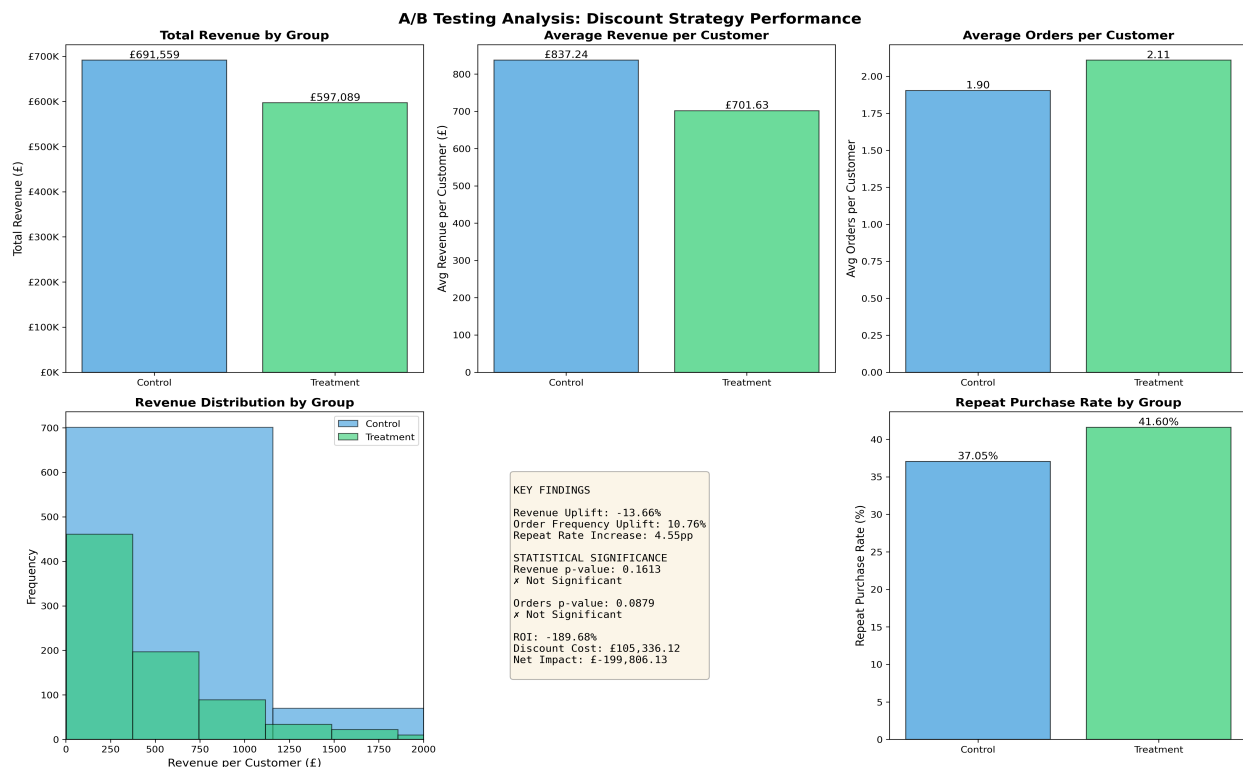
A/B TESTING ANALYSIS

The A/B testing experiment compared a control group with a treatment group receiving discount offers (10-20% discount randomly applied). The analysis includes 826 control customers and 851 treatment customers.

Metric	Control	Treatment	Change
Total Revenue	£691,559.29	£597,089.27	-13.66%
Avg Orders/Customer	1.90	2.11	+10.76%
Avg Order Value	£34.01	£33.10	-2.70%
Repeat Rate	37.05%	41.60%	+4.55pp

Statistical Analysis:

- T-test p-value: 0.1613
- Statistical significance ($\alpha=0.05$): No
- Cohen's d (effect size): -0.0685
- Confidence interval analysis completed

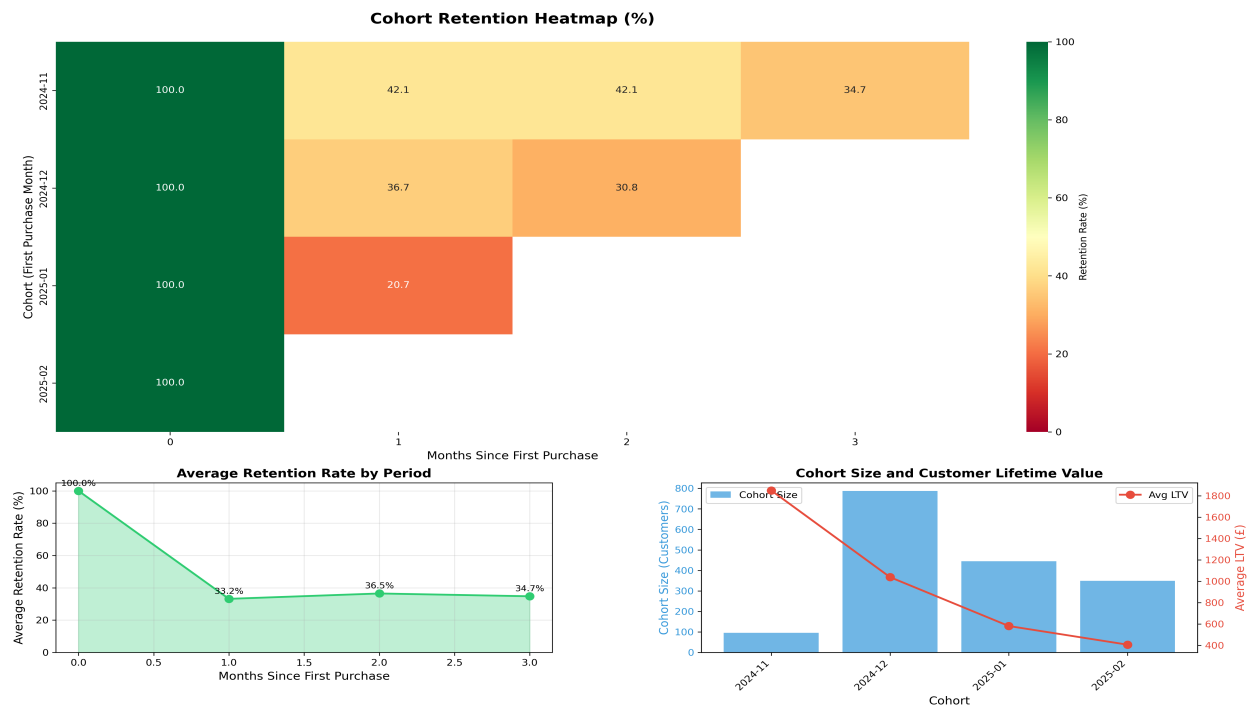


COHORT RETENTION ANALYSIS

Cohort analysis tracks customer retention across 100.0 cohorts over a 3-month period. The analysis reveals critical insights into customer lifecycle and identifies opportunities for retention improvement.

Period	Retention Rate
Month 0 (Baseline)	100.00%
Month 1	33.15%
Month 2	36.47%
Month 3	34.74%

E-Commerce Cohort Retention Analysis (Dec 2024 - Feb 2025)

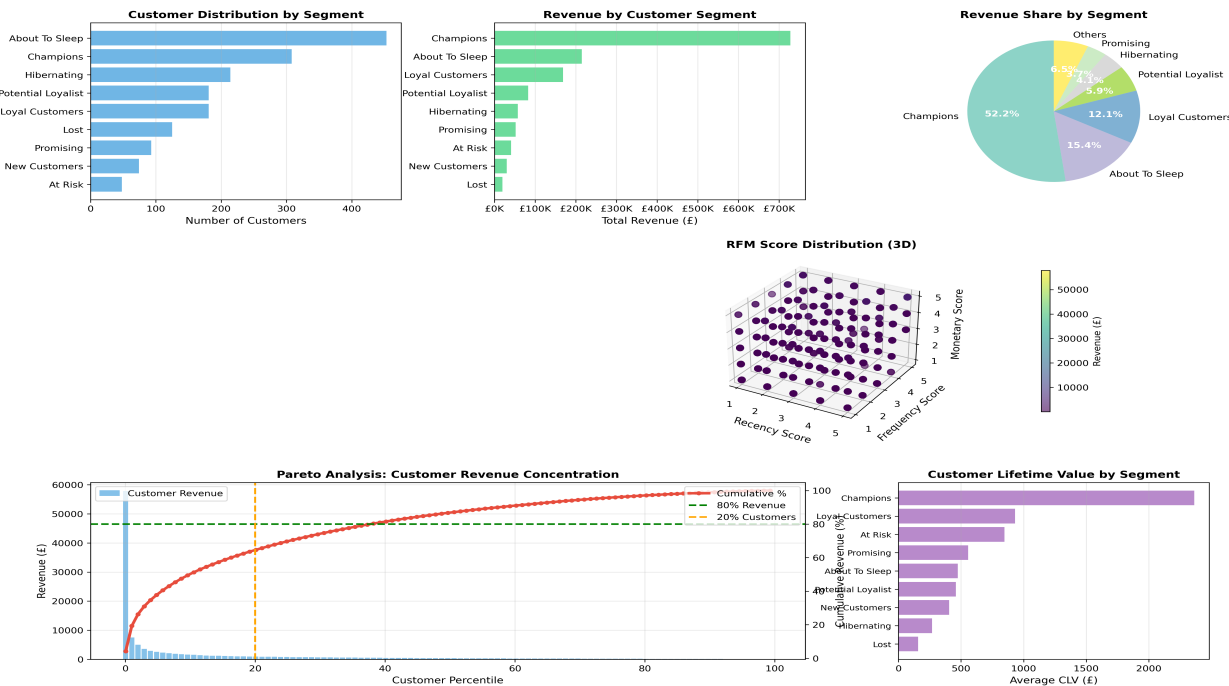


CUSTOMER SEGMENTATION (RFM ANALYSIS)

RFM (Recency, Frequency, Monetary) analysis segments 1,677 customers into strategic groups based on their purchasing behavior. This segmentation enables targeted marketing and retention strategies.

Segment	Customers	Revenue	Revenue %
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RFM Analysis & Customer Segmentation



STRATEGIC RECOMMENDATIONS

1. Focus on High-Value Customers

- Top 20% of customers drive 64.5% of revenue
- Implement VIP loyalty programs for Champions segment
- Personalized engagement for high-CLV customers

2. Improve Customer Retention

- Current Month-1 retention at 33.15% presents significant opportunity
- Target 14% churn reduction to save £291,240 in at-risk revenue
- Focus on "About to Sleep" and "At Risk" segments
- Implement win-back campaigns for lapsed customers

3. Discount Strategy

- Current A/B test shows negative ROI (-189.68%)
- Do not implement broad discount strategy
- Consider targeted discounts for specific segments
- Test alternative promotional strategies

4. Geographic Expansion

- London represents largest market opportunity
- Optimize logistics and marketing for top regions
- Expand presence in underserved regions

5. Product Portfolio Optimization

- Focus inventory on top-performing products
- Cross-sell opportunities with high-value customers
- Monitor product performance trends

CONCLUSION

This comprehensive analysis of UK online retail data reveals significant opportunities for revenue optimization and customer retention improvement. With £1,288,648.56 in revenue from 1,677 customers, the business demonstrates strong fundamentals but faces retention challenges. Key priorities should focus on: 1. Reducing the 39.3% customer churn rate 2. Leveraging the Champions segment that drives 52.2% of revenue 3. Implementing targeted retention strategies over broad discounting 4. Optimizing geographic and product focus The data-driven insights provided in this analysis offer a roadmap for sustainable growth and improved customer lifetime value.