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Sales Insights & Recommendations

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Overview

Project Overview
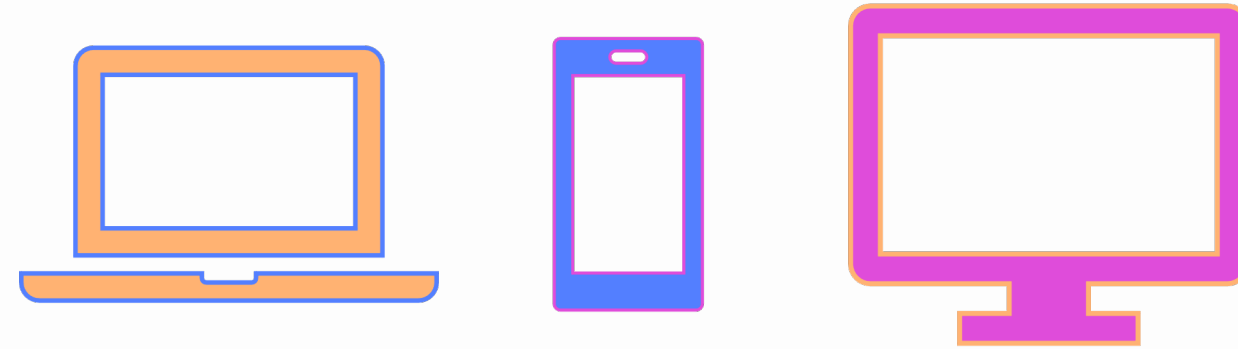
The goal of this project is to conduct an exploratory analysis to **understand Unboxed's sales performance pre- and post-pandemic** (2019 to 2022) to form initial recommendations for the marketing and inventory management teams for further areas of exploration.

Though the company experienced a significant sales boost during COVID-19, **sales have significantly decreased since the pandemic**.

North Star Metrics

KEY METRICS

Revenue — Total sales generated (USD)

Order count — Number of orders placed

Average order value (AOV) — Average dollar value of a customer's purchase

Repeat customer rate — Percent of customers who have made more than one purchase

KEY DIMENSIONS

Loyalty program

Product mix

Marketing channels

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North Star Metrics

KEY METRICS

Revenue — The **total revenue** generated from 2019 to 2022 was **$28M**, with an **average yearly revenue of $7M**.

Order count — A total of **108K** orders were placed, with a **range of 16.8K to 35.9K orders per year**.

Average order value (AOV) — On average, customers spent **$260** per order.

Repeat customer rate — From 2019 to 2022, the average repeat customer rate was **2.5%** across a total of **88K** customers.

Compared to industry benchmarks, Unboxed **outperforms competitors** in terms of **AOV**, but **underperforms** in terms of **repeat customer rate**.

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Insights Deep-Dive

The pandemic drove record-breaking sales figures across all markets, but trends could not be sustained post-pandemic.

- In 2020, **AOV rose by 31% and order count doubled**, driving the **highest yearly revenue** on record ($10M, a 163% increase from the previous year).

- 2022 saw a slump in sales: **Revenue fell by 46%** from the previous year, driven by a significant **decrease in order count (down 40%** from the previous year).

	AOV	Order count	Revenue	AOV (GR)	Order count (GR)	Revenue (GR)
2019	$230	16,850	$3,868,907			
2020	$300	33,851	$10,158,439	31%	101%	163%
2021	$255	35,858	$9,127,894	-15%	6%	-10%
2022	$230	21,565	$4,957,580	-10%	-40%	-46%
Grand Total	**$260**	**108,124**	**$28,112,821**			

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# The bulk of business is concentrated on four products, indicating significant product concentration.

- Overall, 4 out of the company's 8 product offerings accounted for **96% of the total revenue** across all years.

- The Apple Airpods Headphones are the best-selling product, accounting for **45% of all sales** ($7.7M in revenue), while the 27in Gaming Monitor **generated the most revenue** ($9.9M).

- There is a **positive correlation** between product value and refund rate; the four highest-ticket items also had the **highest refund rates** (7.6% to 11.7%).
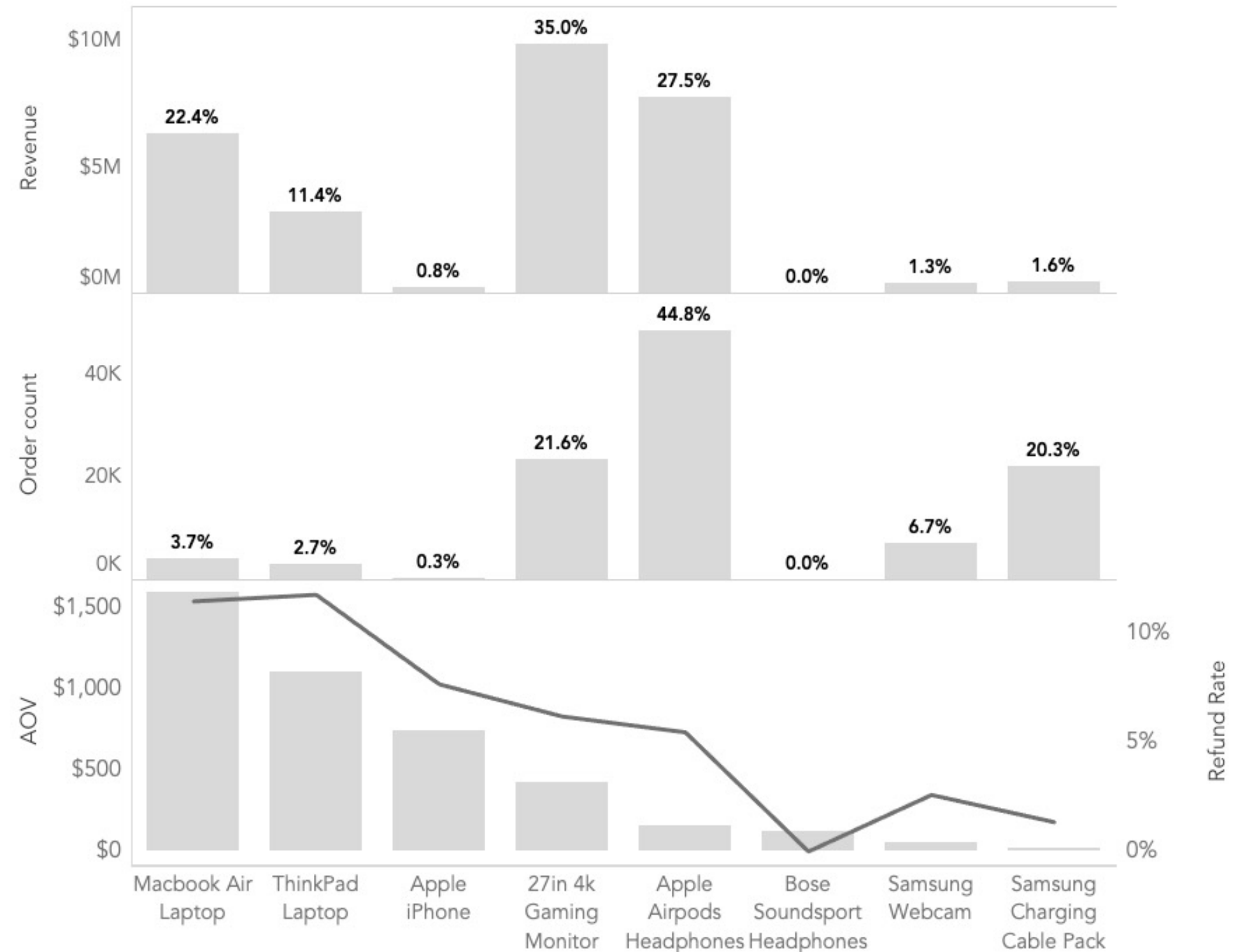
The effectiveness of the loyalty program has increased in recent years.

- In 2019 and 2020, loyalty customers placed fewer and less expensive orders than non-loyalty customers.

- Trends **reversed** in recent years: From 2021 to 2022, **loyalty customers placed more orders** and spent an average of **$30 (14%) more per order** than non-loyalty customers in 2022.

- Q4 2022 trends suggest the loyalty program's recent strong performance may be starting to falter.

Trends in AOV and order count, non-loyalty vs. loyalty program customers
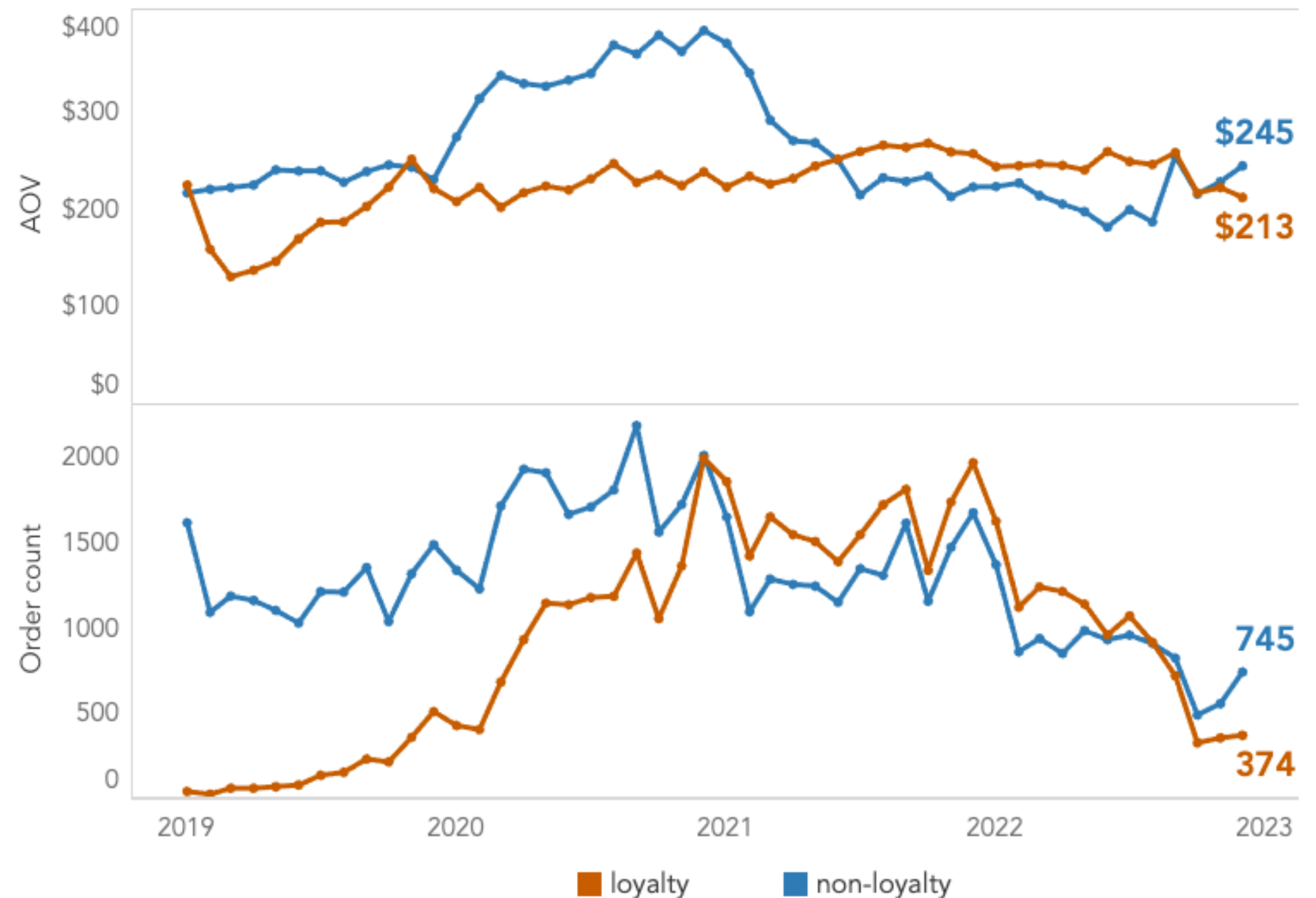
Affiliate marketing is most effective marketing channel for driving repeat customer rate.

- ❑ Unboxed's repeat customer rate is **increasing year-by-year**, **up 2.7 percentage points** from 2020 (1.9%) to 2022 (4.6%), but still falls behind the industry benchmark of 20% to 30%.

- ❑ Affiliate marketing had the highest repeat customer rate across all years (**4.4%**), even though direct marketing drove the most customers by far (**30x higher** than affiliate marketing at **68K**).

- ❑ Until 2022, social media marketing had the second highest repeat customer rate. Direct marketing outperformed social media marketing that year.

		Repeat Customers	Total Customers	Repeat Customer Rate
2020	Total	515	27,737	1.9%
	affiliate	31	810	3.8%
	social media	9	408	2.2%
	direct	439	21,773	2.0%
	email	36	4,568	0.8%
	unknown	0	27	0.0%
	Null	0	151	0.0%
2021	Total	957	29,972	3.2%
	affiliate	39	540	7.2%
	social media	12	300	4.0%
	Null	6	163	3.7%
	direct	827	22,959	3.6%
	email	73	5,987	1.2%
	unknown	0	23	0.0%
2022	Total	850	18,528	4.6%
	affiliate	30	365	8.2%
	direct	729	13,441	5.4%
	social media	6	152	3.9%
	email	82	3,716	2.2%
	Null	3	848	0.4%
	unknown	0	6	0.0%

	Repeat Customers	Total Customers	Repeat Customer Rate
affiliate	98	2,237	4.4%
direct	1,911	67,512	2.8%
social media	24	1,077	2.2%
email	187	15,580	1.2%
Null	8	1,153	0.7%
unknown	0	66	0.0%
Grand Total	**2,228**	**87,625**	**2.5%**

Note: Some records have no marketing channel data and thus show up as 'null' in the table – this affects <5% of rows, but should be investigated to ensure this is not a data collection or ETL pipeline issue.

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Recommendations & Next Steps

Key Recommendations

Marketing

Loyalty program: Continue the loyalty program, since this segment of customers has been placing more orders, as well as more expensive orders, than non-loyalty customers in recent years.

Repeat customer rate: Investigate reasons why affiliate marketing has the highest repeat customer rate; consider increasing investment in this marketing channel to continue to boost reach and increase retention.

Inventory Management

Product mix: Consider expanding offerings anchored on 4 top-performing products, such as performance- or useability-enhancing accessories. Replace low-performing products, which accounted for <1% of revenue and orders, with these new offerings.

Monitor stock levels: Given the current significant product concentration, ensure inventory strategy is optimized to minimize stockout events.

Recommendations center on:
1) **Boosting retention and engagement** with high-value customers;
2) **Consolidating and expanding product mix** around top-performing anchors.

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Caveats and Next Steps

For further analysis and future steps, consider the following:

Improved data quality and availability

- ❑ Include marketing metrics like **click-through rate, impressions, and cost per click** to better evaluate the performance of marketing channels
- ❑ Investigate missing marketing channel data in some transaction records

Include other dimensions and metrics

- ❑ Investigate what products are being purchased more often by repeat and/or loyalty customers to **better understand customer behavior and purchasing patterns**
- ❑ Investigate if customer behavior and purchasing patterns differ **between regions** (customer segmentation analysis) to implement region-specific marketing strategies

Follow up with marketing and inventory teams to align on next steps

- ❑ Collaborate with marketing and inventory groups to **develop measurement plans and benchmarks** to assess impact of recommendations
- ❑ Create dynamic Tableau dashboards to empower teams to self-serve insights insights

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Thank you!

Appendix

Technical Process

Dataset stats:
- 108,127 transaction records
- Purchases from 87,625 customers across NA, EMEA, APAC, and LATAM
- Data ranges from 2019 to 2022

Data points involved:
- Orders: order ID, purchase date, product name, price, refund date (108,127 records)
- Customers: customer ID, marketing channel, region, loyalty program (87,625 records)

Technical process included:
- Cleaning and processing: Loading data in Excel to check, log, and address data quality issues like missing/nonsensical values, data types, and formatting errors, as well as create helper columns to indicate refund status
- Analysis and visualization:
  - Loading data into Tableau from Excel
  - Use calculated functions to calculate AOV, order count, growth rates (AOV, order count, revenue), refund rate, and repeat customer rate
  - Use filters to remove missing records
  - Apply color formatting and use table calculations to display conditional formatting and text labels on graphs.