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**Sales Insights & Recommendations**

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# Overview

# Project Overview
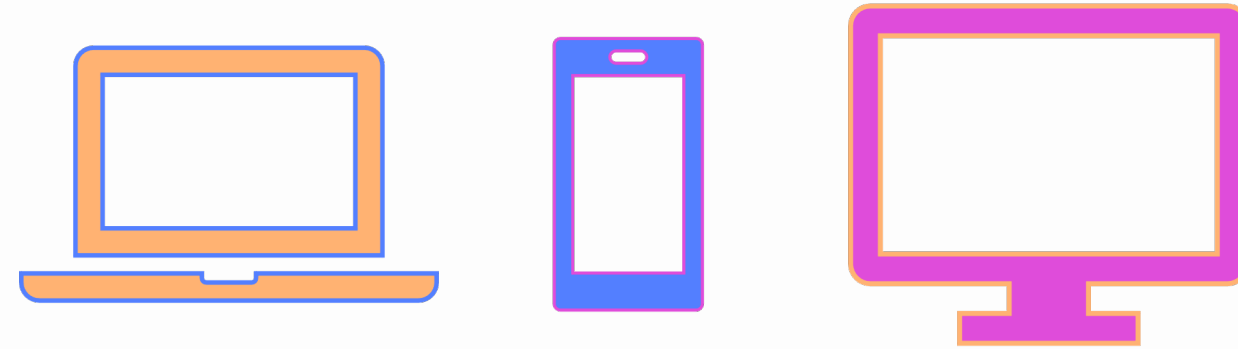


The goal of this project is to conduct an exploratory analysis to **understand Unboxed's sales performance pre- and post-pandemic** (2019 to 2022) to form initial recommendations for the marketing and inventory management teams for further areas of exploration.

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

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# 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 appears to be 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%).



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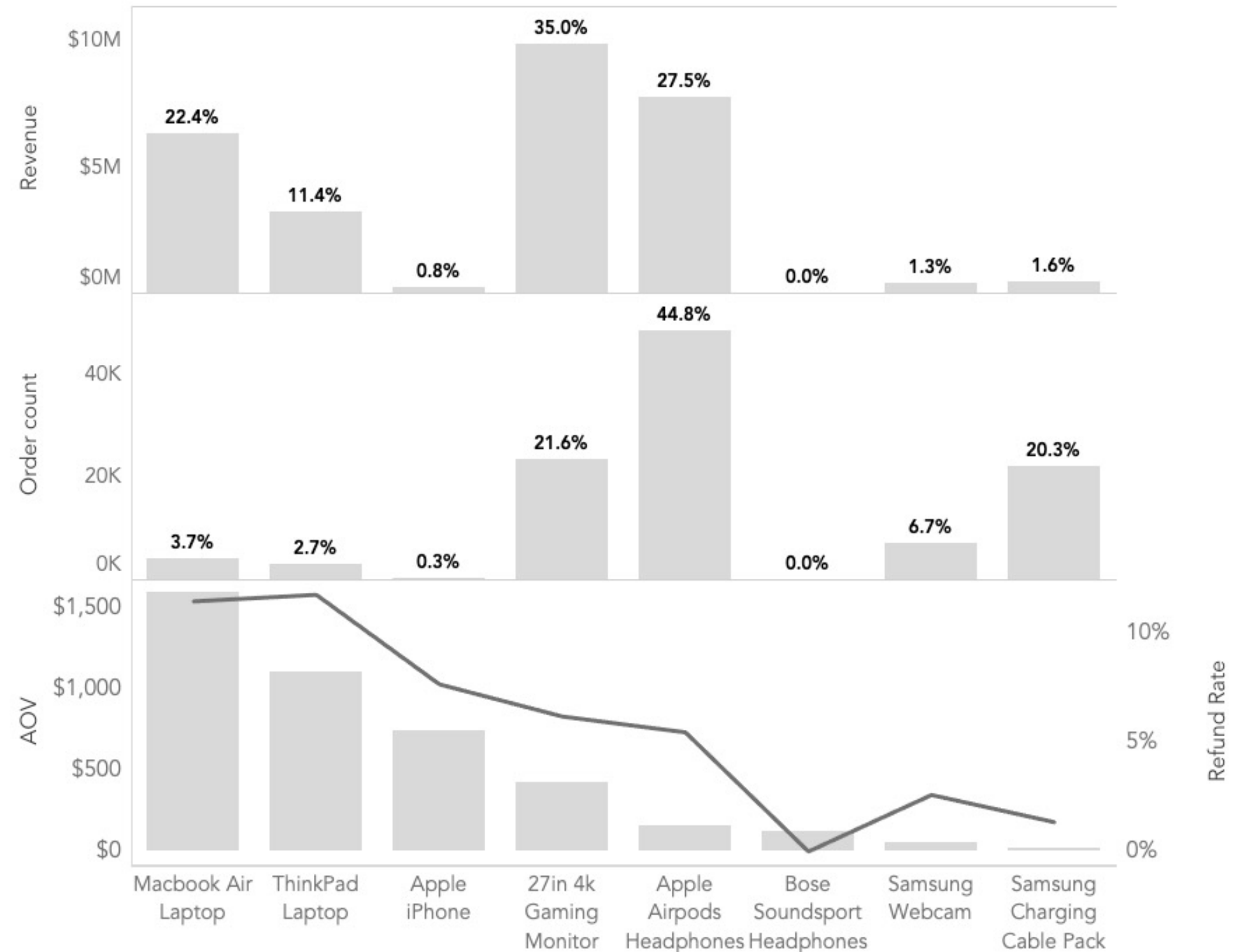
# The effectiveness of the loyalty program has increased in recent years.

- 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

AOV: $245 (non-loyalty), $213 (loyalty)
Order count: 745 (non-loyalty), 374 (loyalty)

■ loyalty   ■ non-loyalty
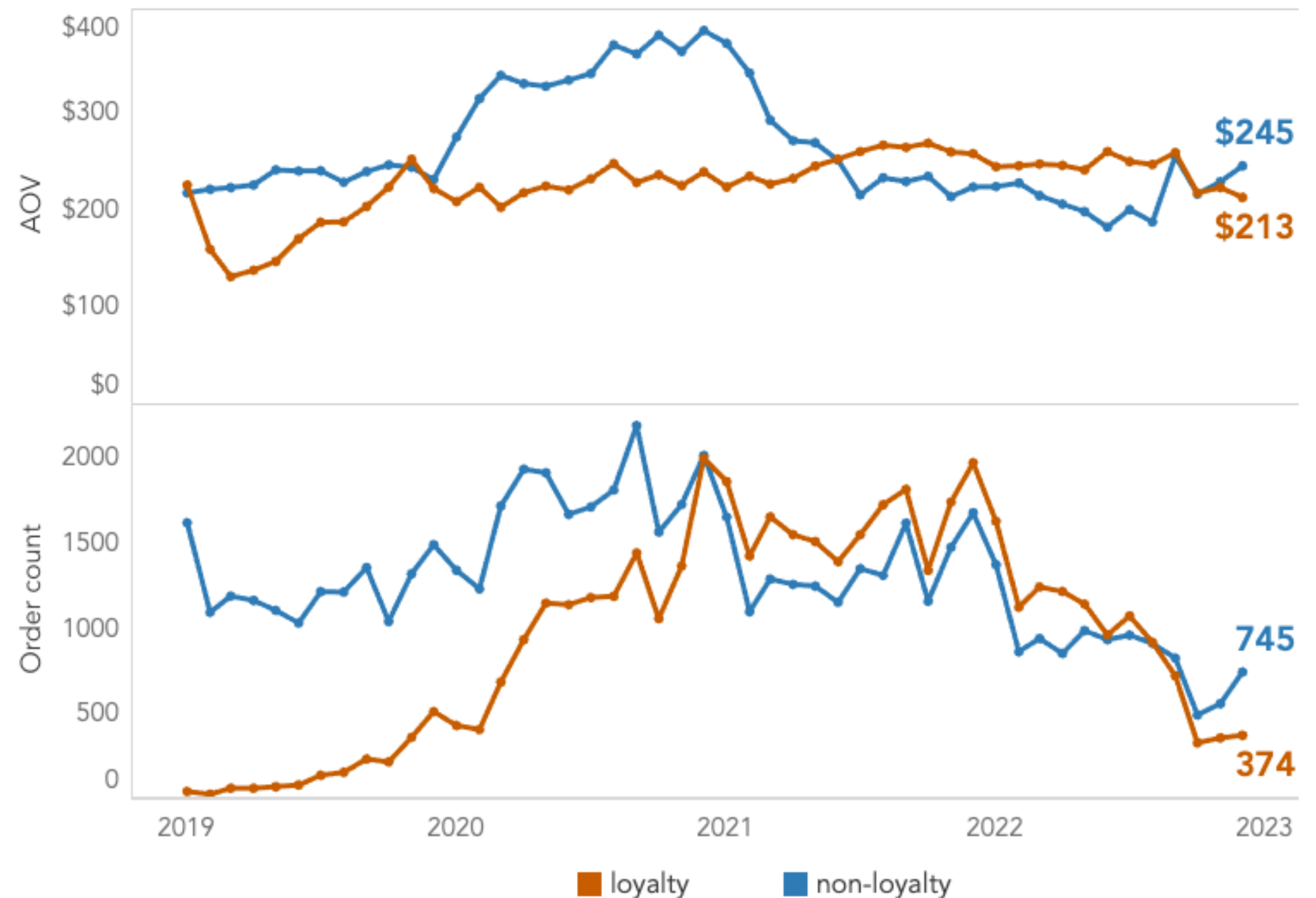
# Affiliate marketing is most effective marketing channel for driving repeat customer rate.

- ❏ 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.

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