

# Online Shop Business Performance

Using Data From Real Online Shop

# Business Overview

Our story begins in 2020 along with our survival spirit. It was around Covid's worst time, when we first open our first shop, offering our best original products at the competitive price without compromising quality.

# Project Overview

We analyze historical data to know who's our customer, is there any season when we have highest revenue and how well our products performed, so we can come up with counter actions.

# Topic Outline

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- 01 About Our Data
  - 02 Problems Breakdown
  - 03 Data Cleaning
  - 04 EDA
  - 05 Business Recommendation

• orderItemId	= ID for each ordered item
• lazadald	= ID for each item
• purchaseTime	= Date customer placed order (with time)
• updateTime	= Last time order updated
• rtsSla	= Max date to send order
• ttsSla	= Max date to send order before auto cancel
• orderNumber	= ID for order
• deliveredDate	= Delivery time
• shippingCity	= Shipping city
• billingCity	= Billing city
• payMethod	= Pay method
• paidPrice	= Price customer have to pay after discount
• unitPrice	= Normal price
• sellerDiscountTotal	= Discount
• shippingFee	= Shipping fee
• itemName	= Product name
• shippingProvider	= Shipping provider
• shippingProviderFM	= Dropship provider before Shipping
• DatePurchase	= Date customer placed order
• year_buy	= Year purchase
• month_buy	= Month purchase
• CustId	= ID for each customer

# Our Data

# Problems Breakdown

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- 01 **Metric's Breakdown** (Annual and Monthly Average Revenue)
  - 02 **Impact Sizing** (How Many Repeat Customer and New Customer?)
  - 03 **Seasonality** (Is There Any Pattern or Season When Customer Buy the Most?)
  - 04 **Internal** (How Well Our Product's Performance?)

# Data Cleaning

```
def item_simplifier(title):
    if 'bando' in title.lower():
        return 'Bando'
    elif 'tasbih mutiara' in title.lower():
        return 'Tasbih Mutiara'
    elif 'tasbih kayu' in title.lower():
        return 'Tasbih Kayu'
    elif 'sajadah' in title.lower():
        return 'Sajadah'
    elif 'tasbih kristal' in title.lower():
        return 'Tasbih Kristal'
    elif 'botol' in title.lower():
        return 'Botol Zamzam'
    elif 'ceko' in title.lower():
        return 'Kristal Renceng'
    elif 'renceng' in title.lower():
        return 'Kristal Renceng'
    elif 'segiempat' in title.lower():
        return 'Hijab'
    elif 'mukena' in title.lower():
        return 'Mukena'
    elif 'coklat' in title.lower():
        return 'Makanan'
    elif 'almond' in title.lower():
        return 'Makanan'
    elif 'chickpea' in title.lower():
        return 'Makanan'
    elif 'dress' in title.lower():
        return 'Dress'
    else:
        return 'Other'
```

- Change Dtypes
- Simplified text of product
- Feature Engineering

# EDA



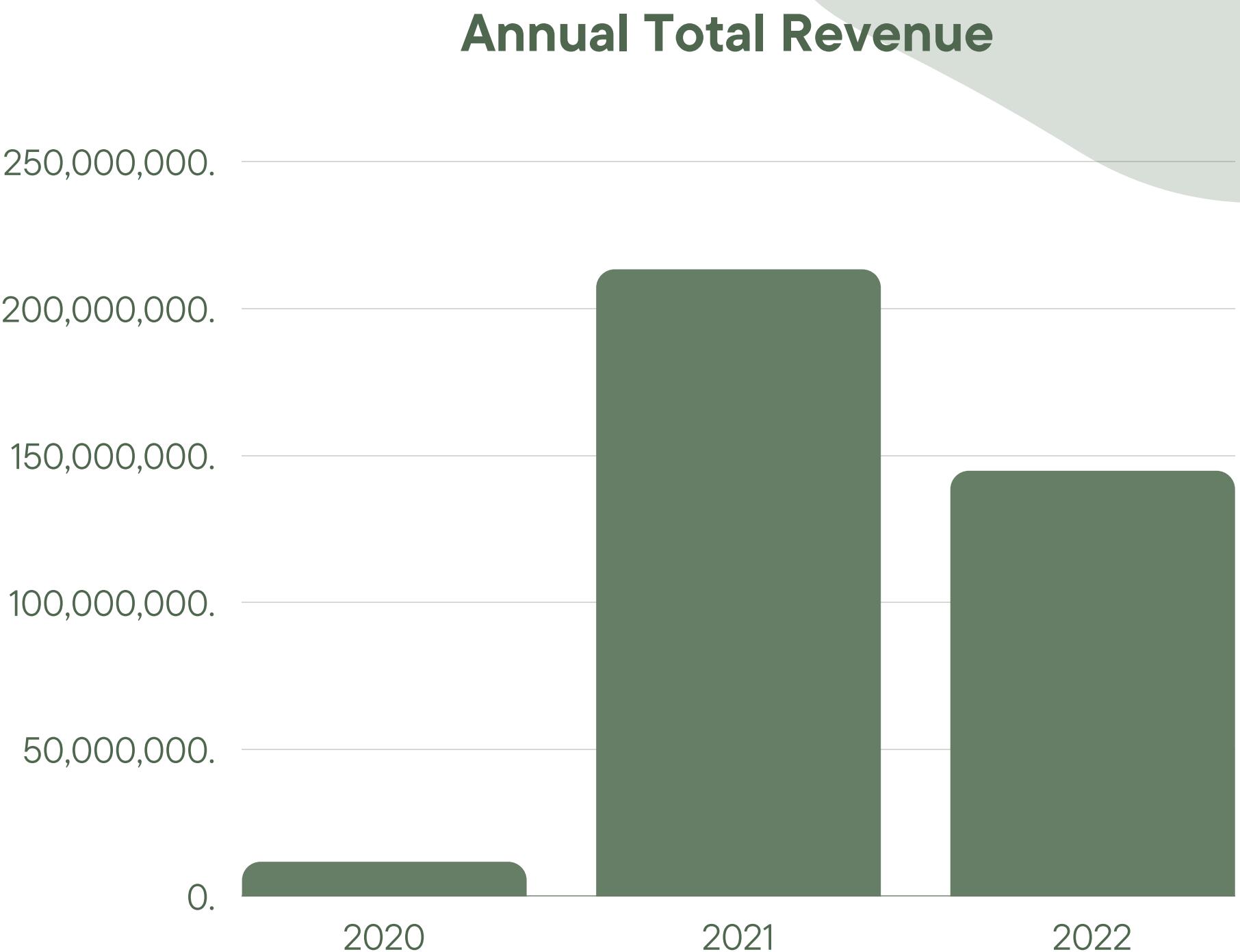
# Metric's Breakdown

Annual and Monthly Average Revenue

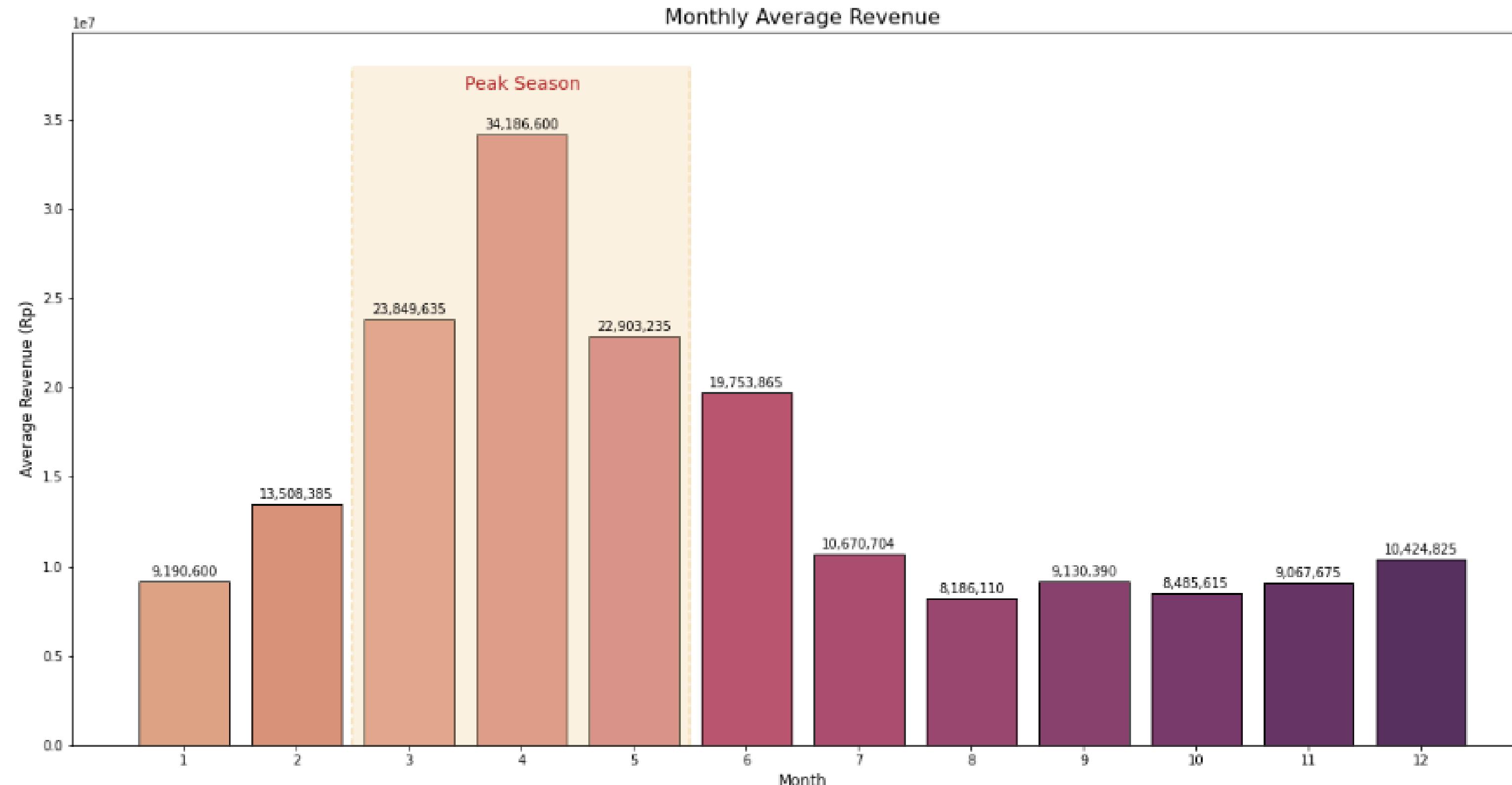


# Annual and Monthly Revenue

We analyzed annual revenue and from our graph it shown that there's decreasing revenue in 2022, but in fact we sum revenue this year just until past month, so we need to know our average monthly revenue to know if there's trend on specific month.



# Annual and Monthly Revenue



# Annual and Monthly Revenue

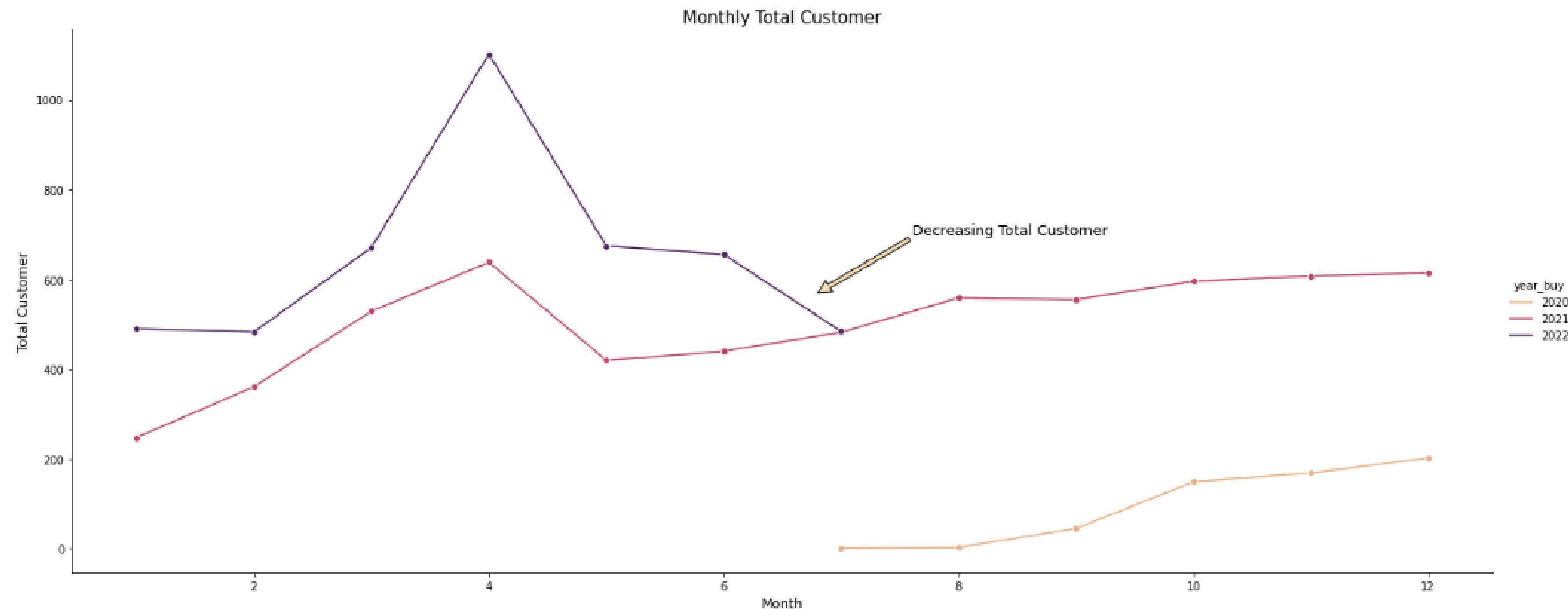
We analyzed average monthly revenue and from our graph it shown there's months that significantly higher than others. Our product mainly on muslim product category. Due to Eid Mubarak prep on these three March, April and May, our highest revenue reach 3x higher than revenue on other months.

# Impact Sizing

How Many Repeat Customer and New Customer?



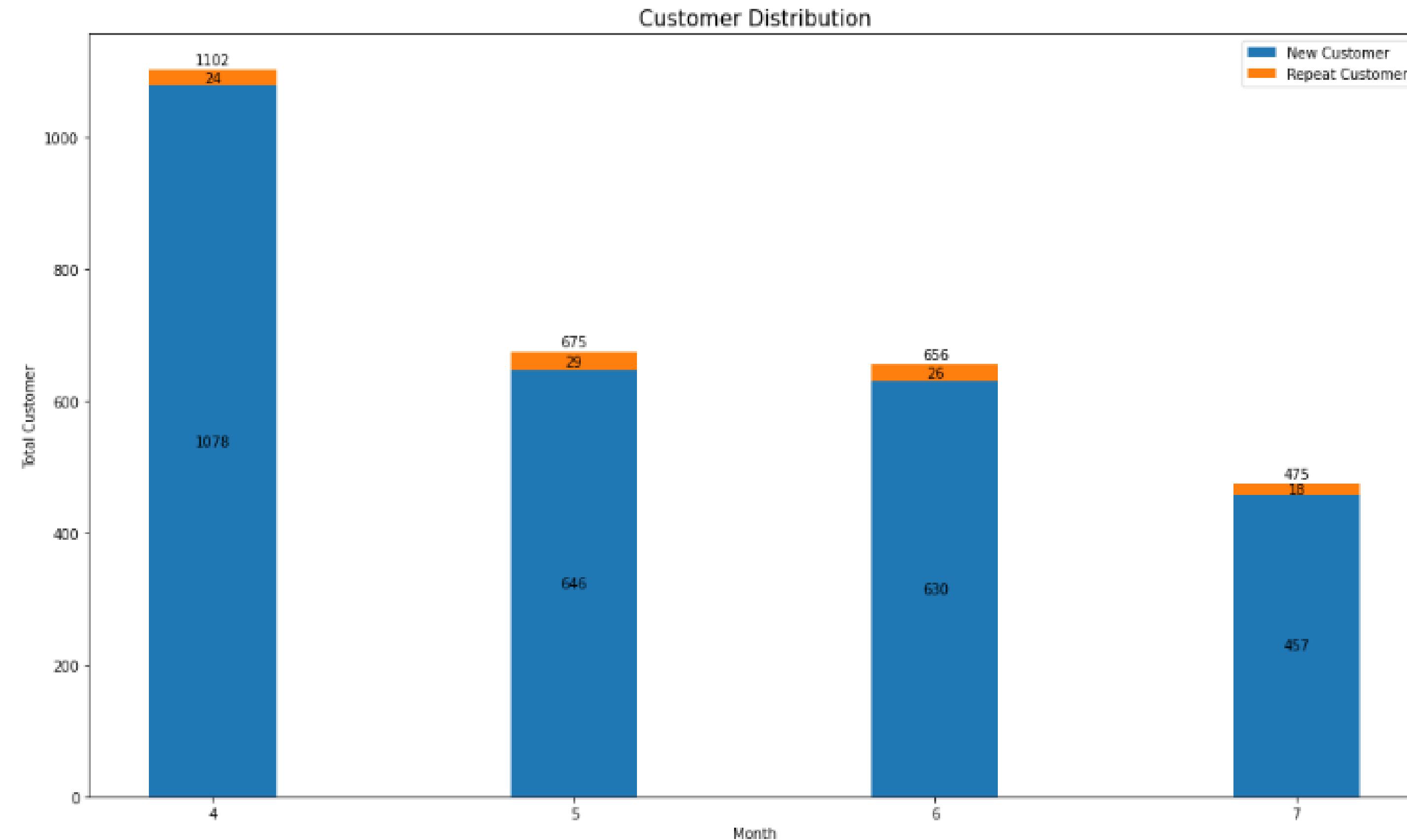
# Customer Size





We have customer decline in July 2022! Let's find out our customer distribution on these past few months so we can find a way to address this problem on our business recommendation later

# Customer Size



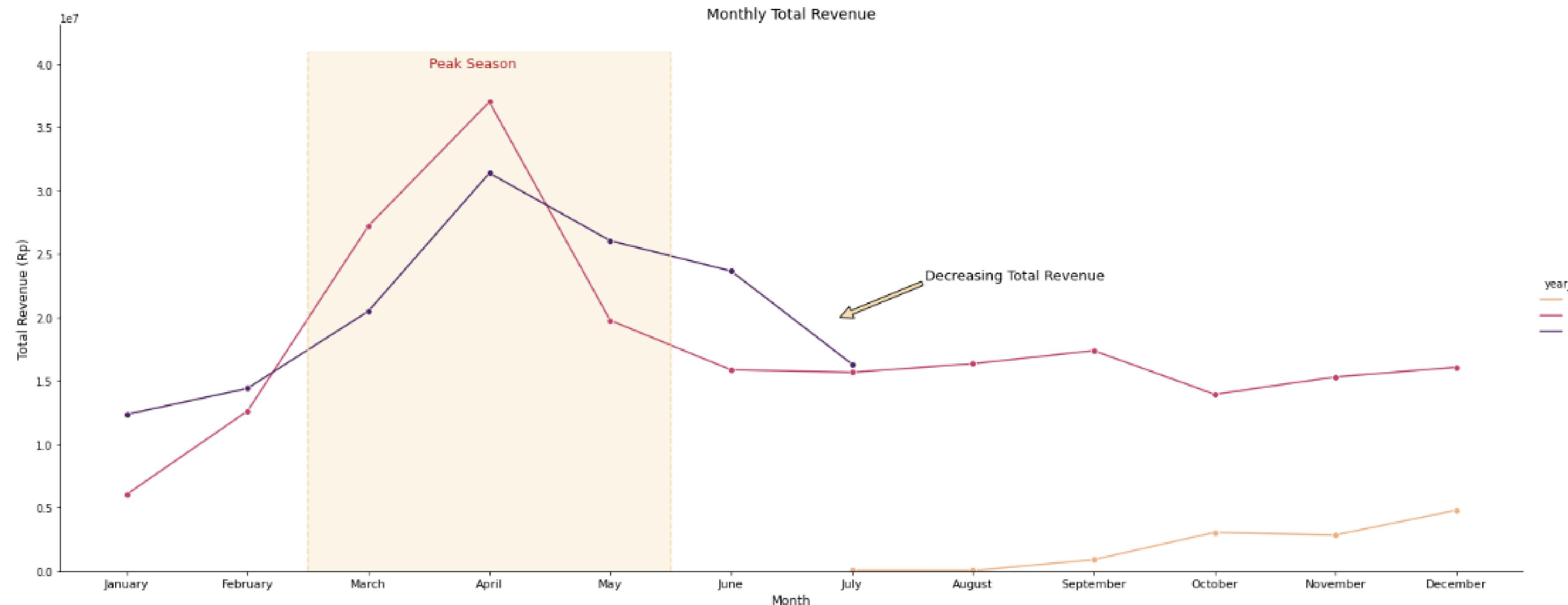
On average monthly revenue, March, April, May seems to be peak season. So we check our customer distribution from April, May, June, and July 2022 to see if any repeated customers on each month. From our graph, our customers on July only 475 and 18 of them were repeated customers. It means we lost 181 customers from last month and we need to do acquisition strategy to gain loyalty from our customer

# Seasonality

Is There Any Pattern or Season When Customer Buy the Most?



# Monthly Total Revenue



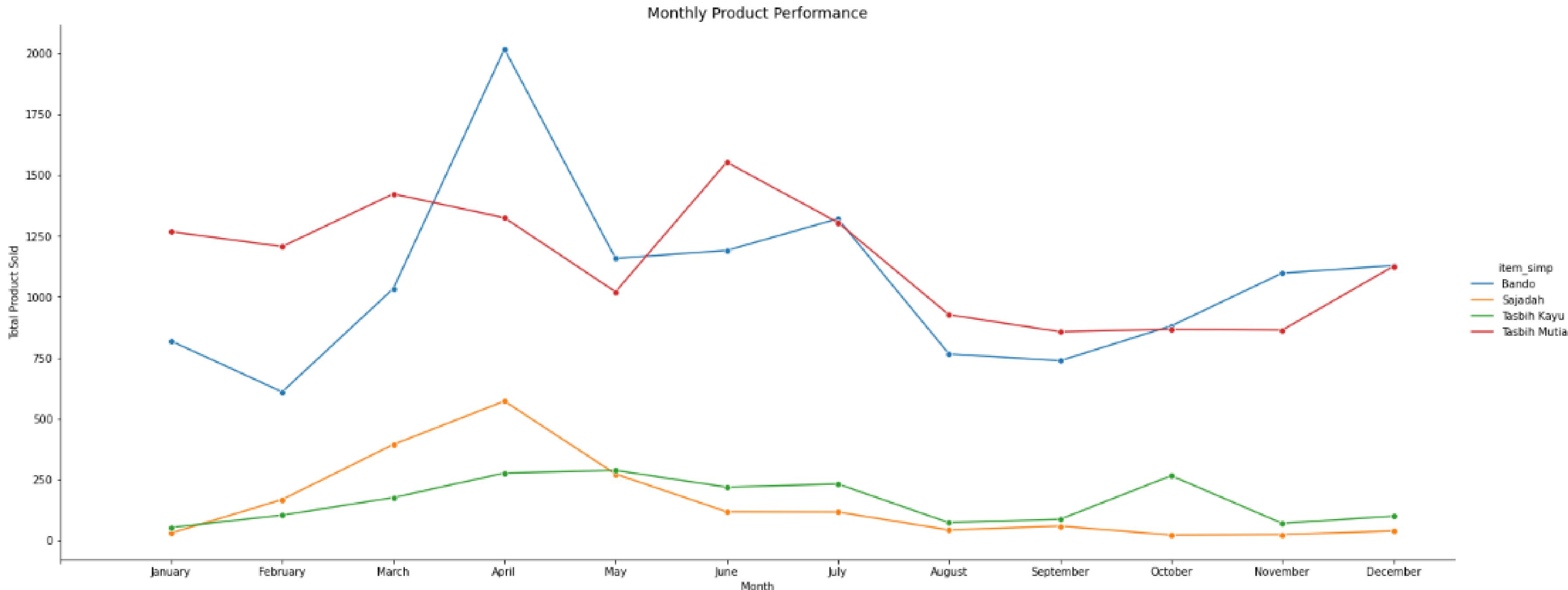
We see increasing monthly total revenue in March, April, May both in 2021 and 2022, so we can say there's seasonality of increasing revenue around this time. But it's not a pretty sight to see in July 2022 as we have declining revenue. Let see our product performance to know how's it going through time.

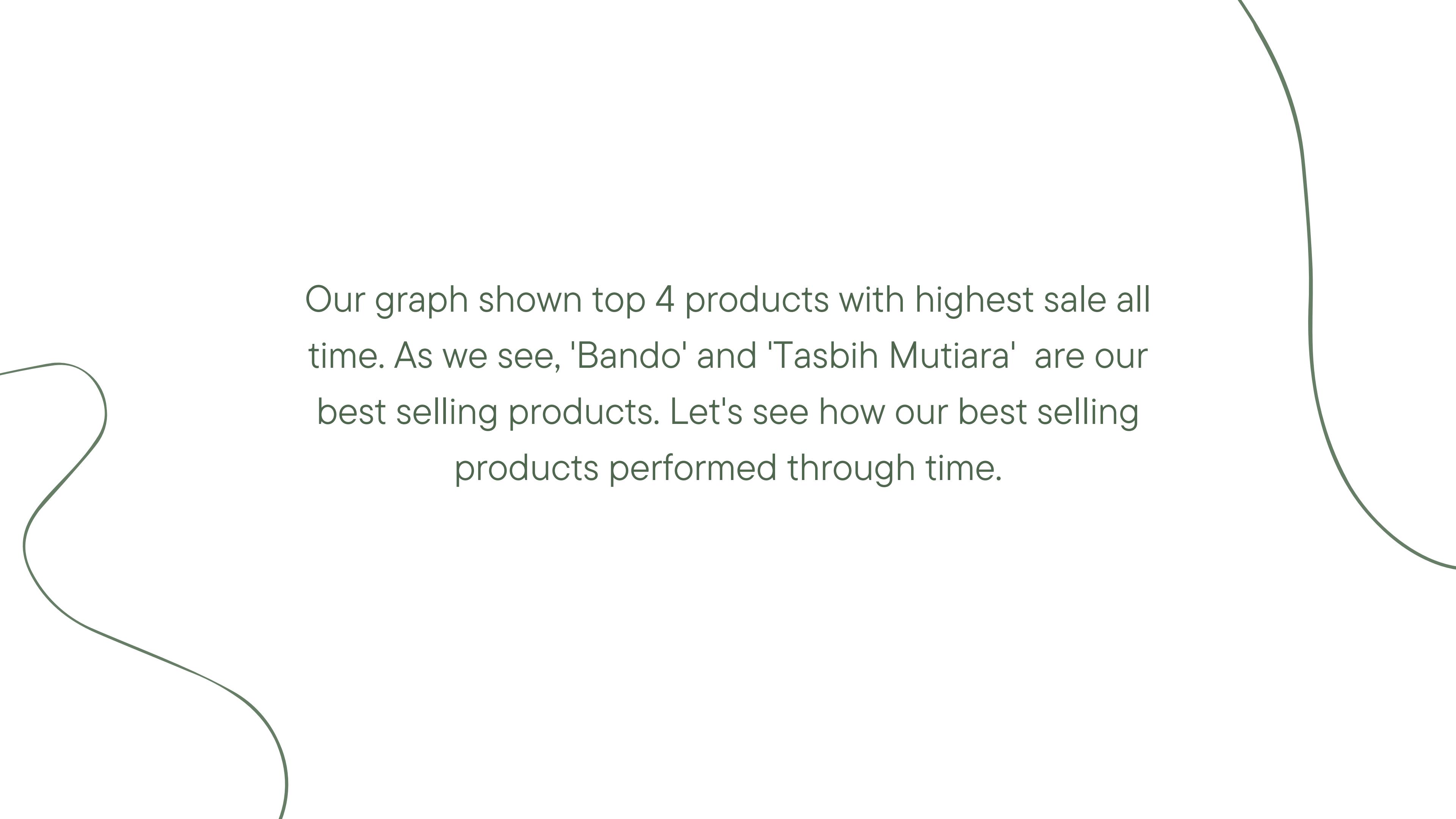
# Internal

How Well Our Product's Performance?



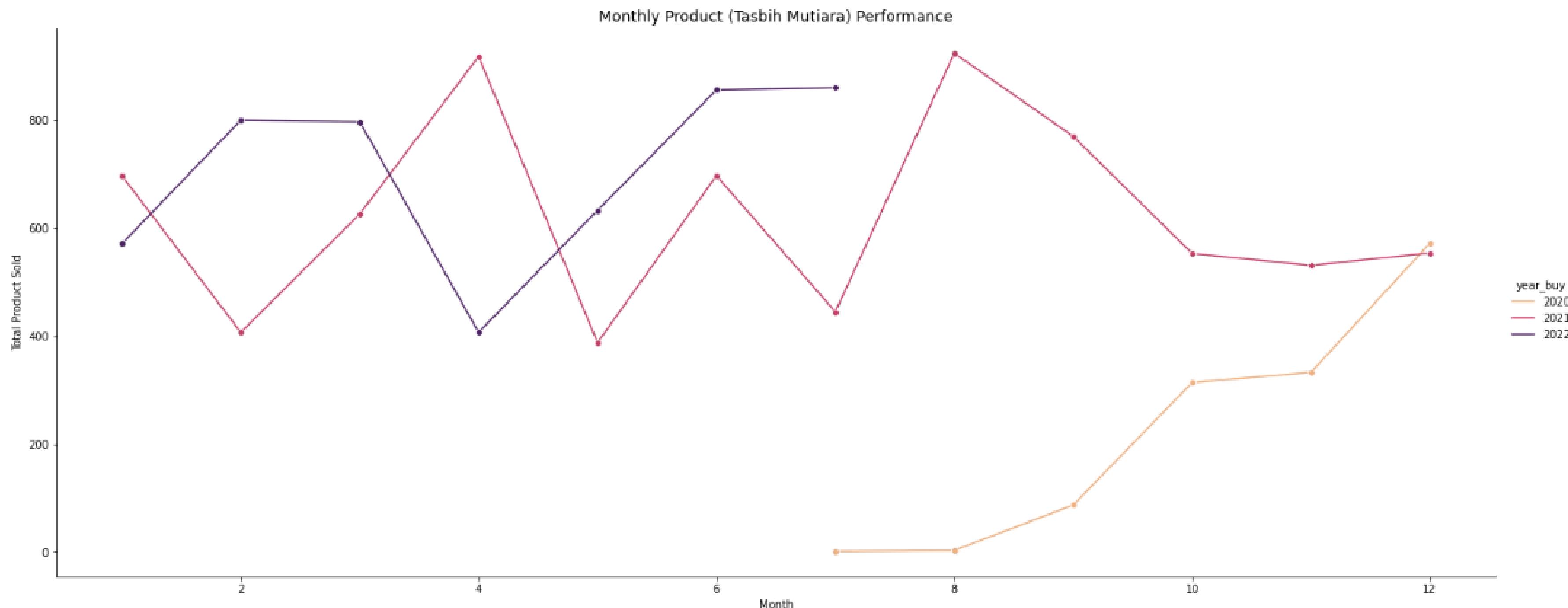
# Monthly Total Revenue

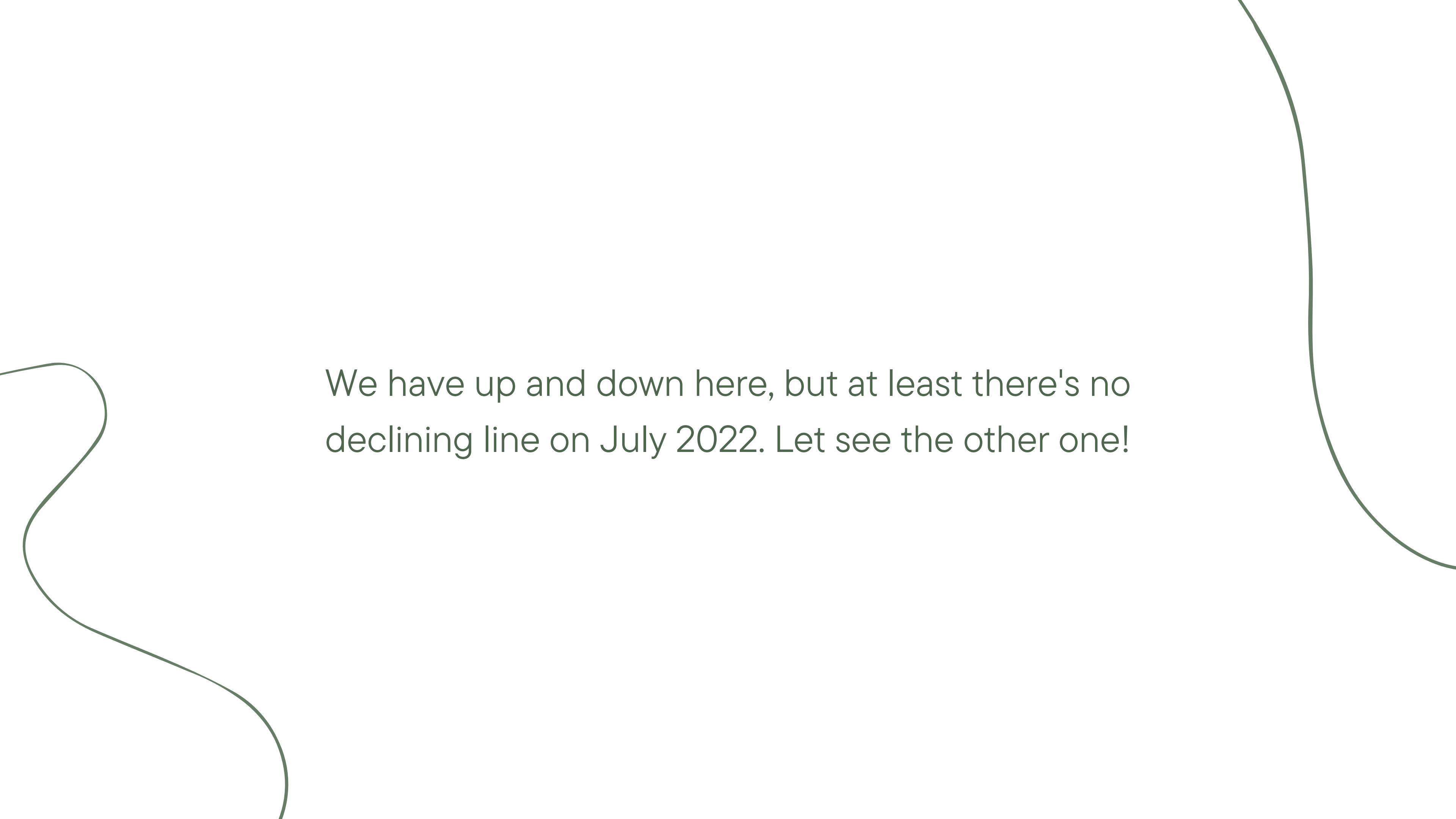




Our graph shown top 4 products with highest sale all time. As we see, 'Bando' and 'Tasbih Mutiara' are our best selling products. Let's see how our best selling products performed through time.

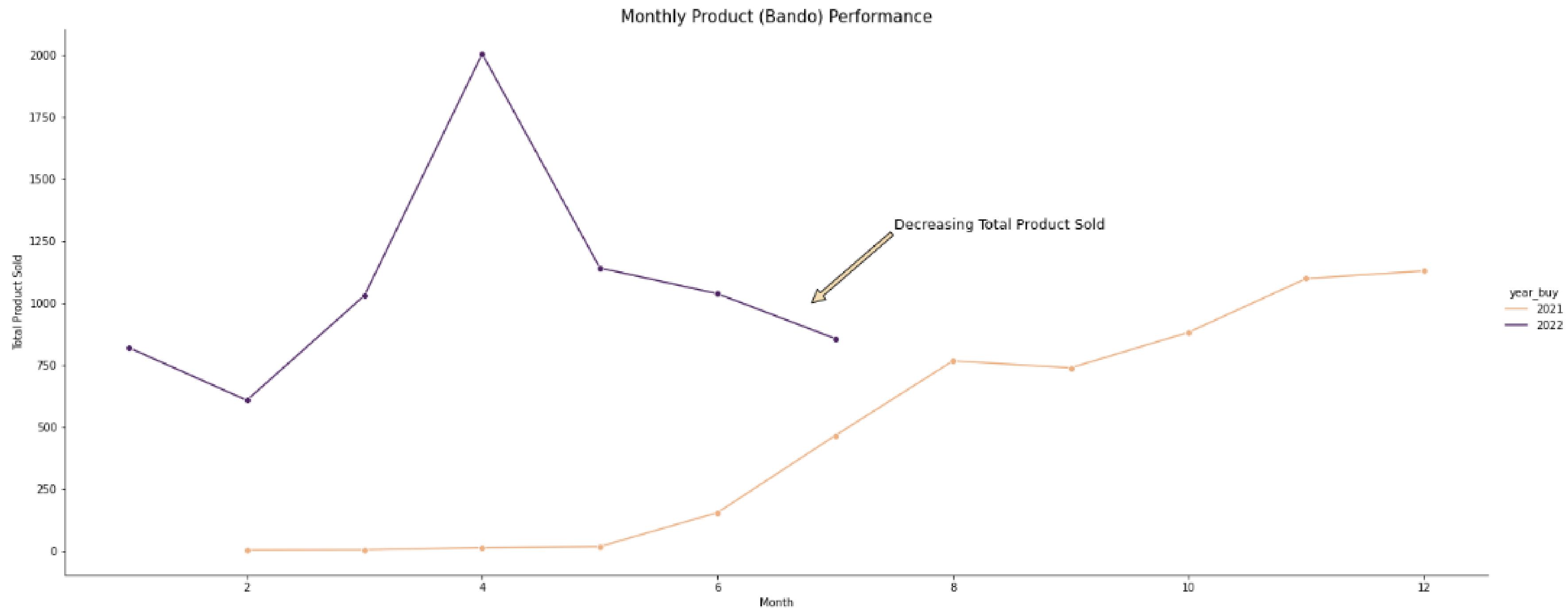
# Tasbih Mutiara Performance

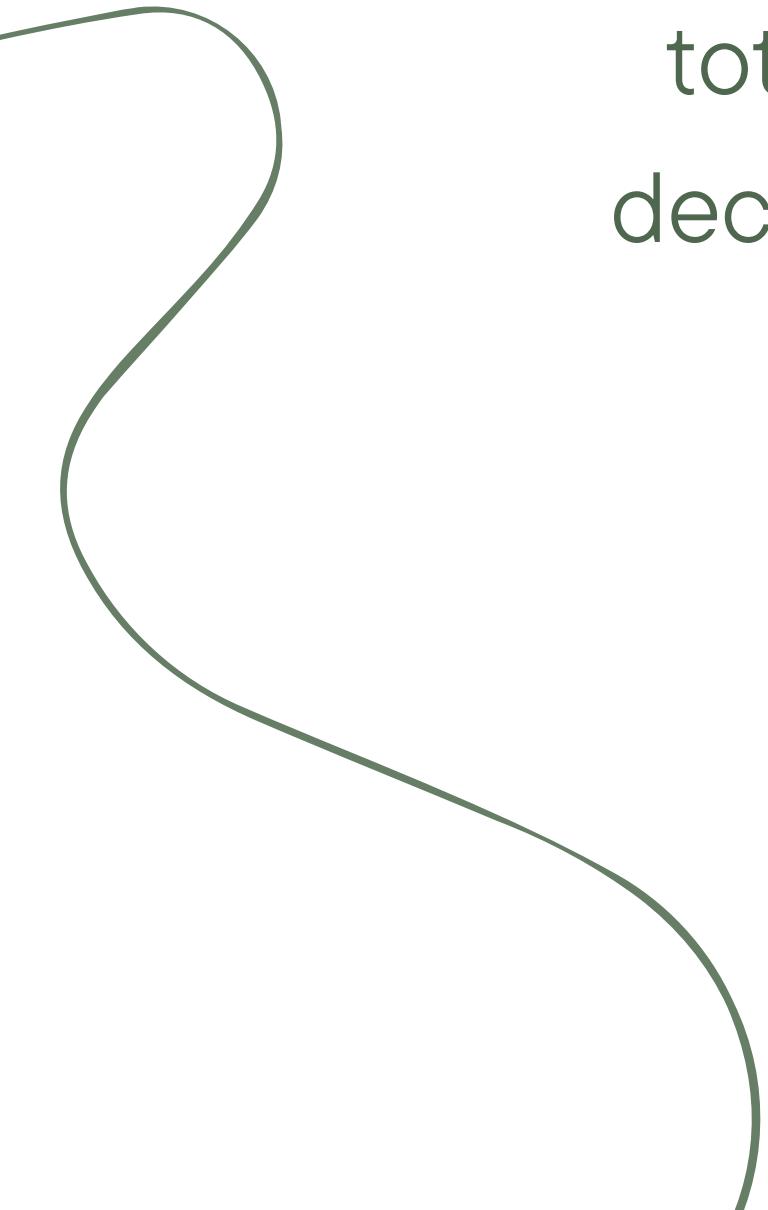




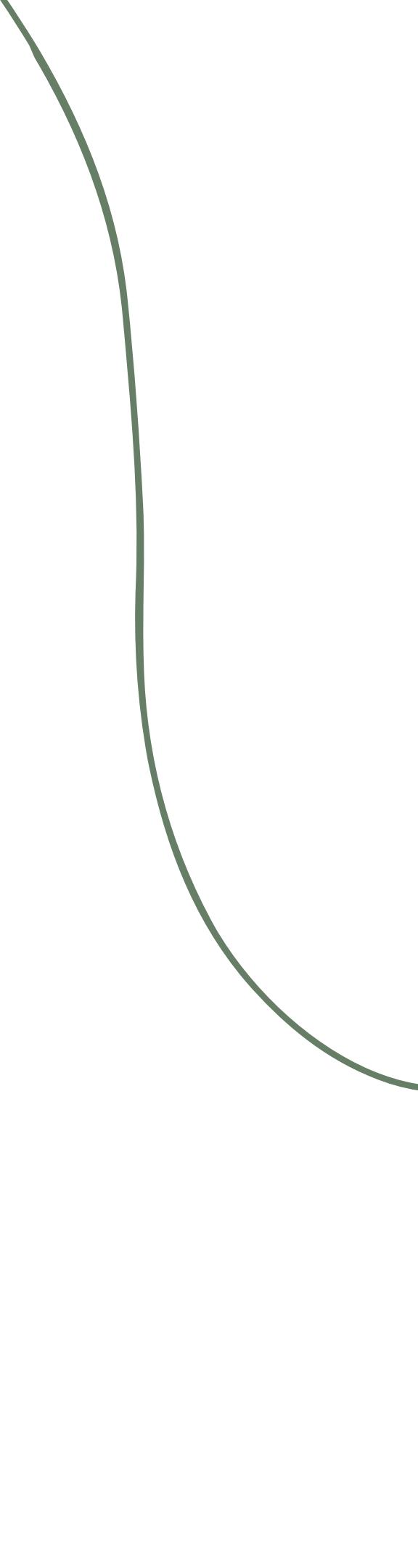
We have up and down here, but at least there's no declining line on July 2022. Let see the other one!

# Bando Performance





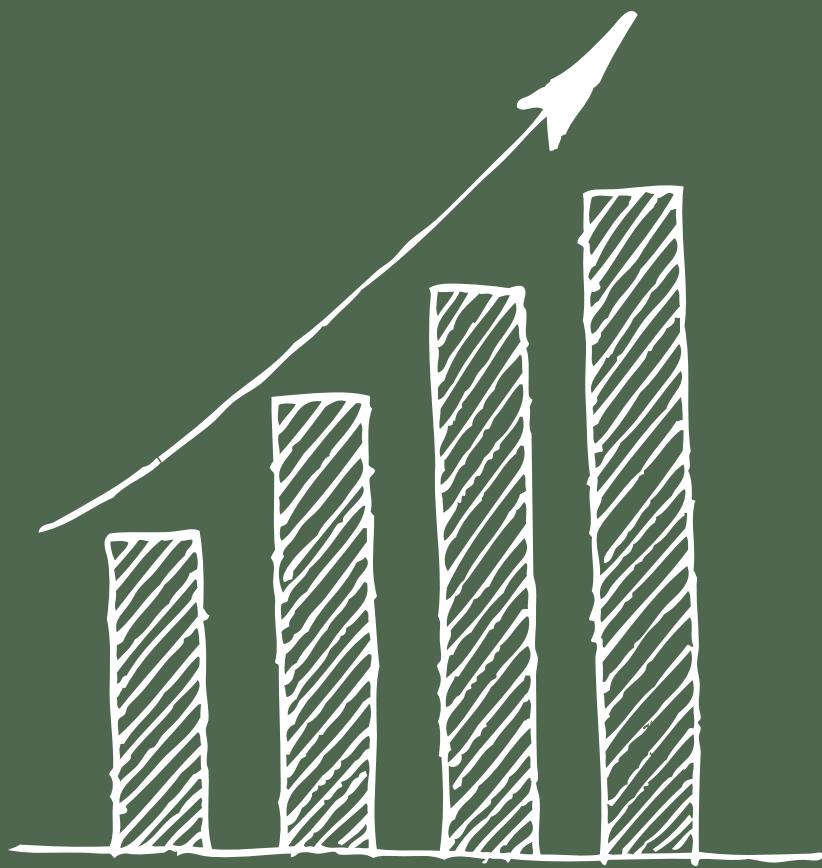
Guess we found the culprit behind declining revenue and total costumers on July 2022. Our product 'Bando' showing declining line, it's either due to our customer loss value on our product or there's competitor.





# Business Recommendation

# Business Recommendation



Understand the  
Competition



Acquisition Strategy



Add More Products

# Understand the Competition

It seems we have competitors, as it show that we have decreasing total customer and total product (bando) sold on June and July 2022. We can learn from our competitor feature, what differentiate between us, how it's fulfilling certain customer needs, etc. So we can come up with counter actions.

# Acquisition Strategy

We have new customer and no return customer from last month, 457 and 181 respectively on July 2022. So we need to have acquisition strategy to build loyalty from new customer. For example, we can try SEO optimization, digital advertising like campaign and flash sale, direct message for marketing and create a customer loyalty program

# Add More Products

Our shop mainly sell moslem products, but 'Bando' seems promising, we could sell more baby product in future

# Thank you!

For all of you who read this far, I do hope this presentation give you some information, or as a refresher or perhaps can be a topic discussion.

This project based on my real experience on shop i work at. I really appreciate for any of thought, comment, or feedback.