E-COMMERCE SUMMER SALES ANALYSIS

INSIGHTS FOR NEW SELLERS ON WISH

Business Goal

To identify key elements that contribute to a new seller's success

This analysis aims to help a new seller succeed in **launching** summer products on the Wish platform. By identifying top-performing items, analyzing pricing strategies, and evaluating the impact of ads and seller reputation, we offer clear, data-driven recommendations to **boost sales** and visibility.

Overview

1

DATA OVERVIEW

- Source: Wish.com (summer products)
- Includes product, pricing, sales, shipping, and merchant data
- Key fields: units sold, ratings, badges, price, ads, shipping type

2

DATA CLEANING

- Replace empty values
- Remove Duplicates
- Standardizing and correcting typo mistakes
- Categorizing

3

SALES OVERVIEW

- Summary of Overall Sales

4

ANALYSIS

- Top-Performing Product Category Analysis
- Price Analysis
- Advertisement Effect Analysis
- Merchant Analysis

5

SUGGESTIONS

- Suggestions based on analysis

Data Overview

www.wish.com

- Focused on **"summer" products** listed on the platform.
- Includes over 40 features about product listings, sales, ratings, pricing, and shipping.
- Useful for analyzing trends in product popularity, pricing strategy, advertising effectiveness, and seller performance.

Key product attributes: title, tags, color, size, price, inventory, and units sold. Includes promotion indicators

Seller details such as merchant rating, profile presence, and total reviews

Shipping information: express vs. standard, number of countries shipped, and shipping price

Data Cleaning

Empty Values

- Handled missing and inconsistent values by filling across important columns (e.g., ratings, product color, size, shipping option, and merchant info).

Standarizing

- Product attributes, such as color (product_color) and size (product_variation_size_id renamed to cleaned_size), were standardized through normalization, replacement of inconsistent formatting, and categorization.

New columns

- Extracted useful data from complex text fields and created new columns for easier analysis.
- CATEGORIES: from the title & tag columns a classification was made according to next slide

Product Category

Category	Detail	Category	Detail
T-shirts	t-shirt	Homewear	sleepwear, pajama, loungewear
Shirts/Blouse	blouse, shirt	Sports	sport, yoga, legging
Dresses	dress	Swimwear	swimwear, bikini, swimsuit
Camisole/Tanktop	vest, camisole, tank top	Shoes/Sandals	shoe, sandal, slipper, flip flop
Cardigan	cardigan, jacket, coat	Accessories	ring, anklet, bracelet, necklace, scarf, cap, bag, hat, belt etc
Jumpsuits	jumpsuit, overall	Others(fashion)	sweater, socks, bra, pad etc
Pants	pants, trouser, jean, shorts	Non fashion	fan, beach ball, swimming pool
Skirts	skirt, skort		

SALES OVERVIEW

Total Sales and Quantity each Category

Total Sales

52.36M

Total Units Sold

6.46M

Product Type

1341

Total Merchants

958

● Total Sales ● Total Units Sold

Category	Total Sales
dresses	19.4M
camisole/tanktop	9.6M
swimwear	4.5M
t-shirts	3.7M
jumpsuits	3.1M
pants	2.9M
sports	2.4M
skirts	2.3M
others(fashion)	1.5M
shirts/blouse	1.0M
cardigan	0.6M
accessories	0.6M
non-fashion	0.5M
shoes/sandals	0.3M
homewear	0.0M
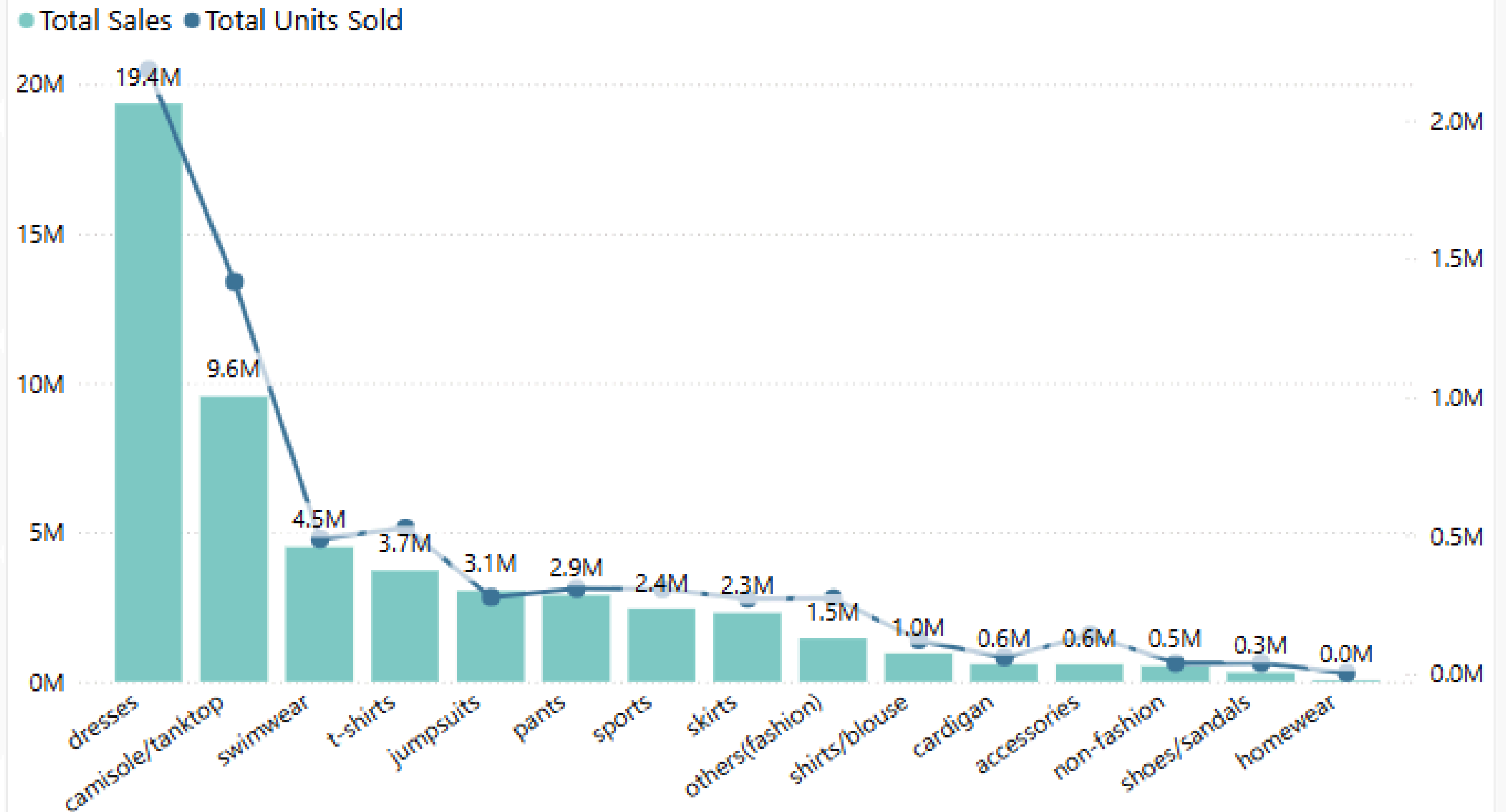
Analysis Flow

01 Product Category Analysis

- What are the top-selling/unpopular product categories?
- What are the most popular colors and sizes within each category?

02 Price Analysis

- What is the average or median price in each product category?
- Does the difference between a product's price and the category average affect its sales?
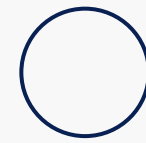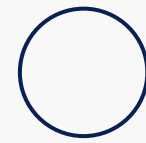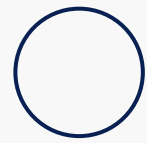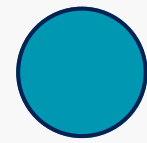
03 Advertisement Effect Analysis

- What is the difference in sales between products with advertisements/ urgency banner and those without?
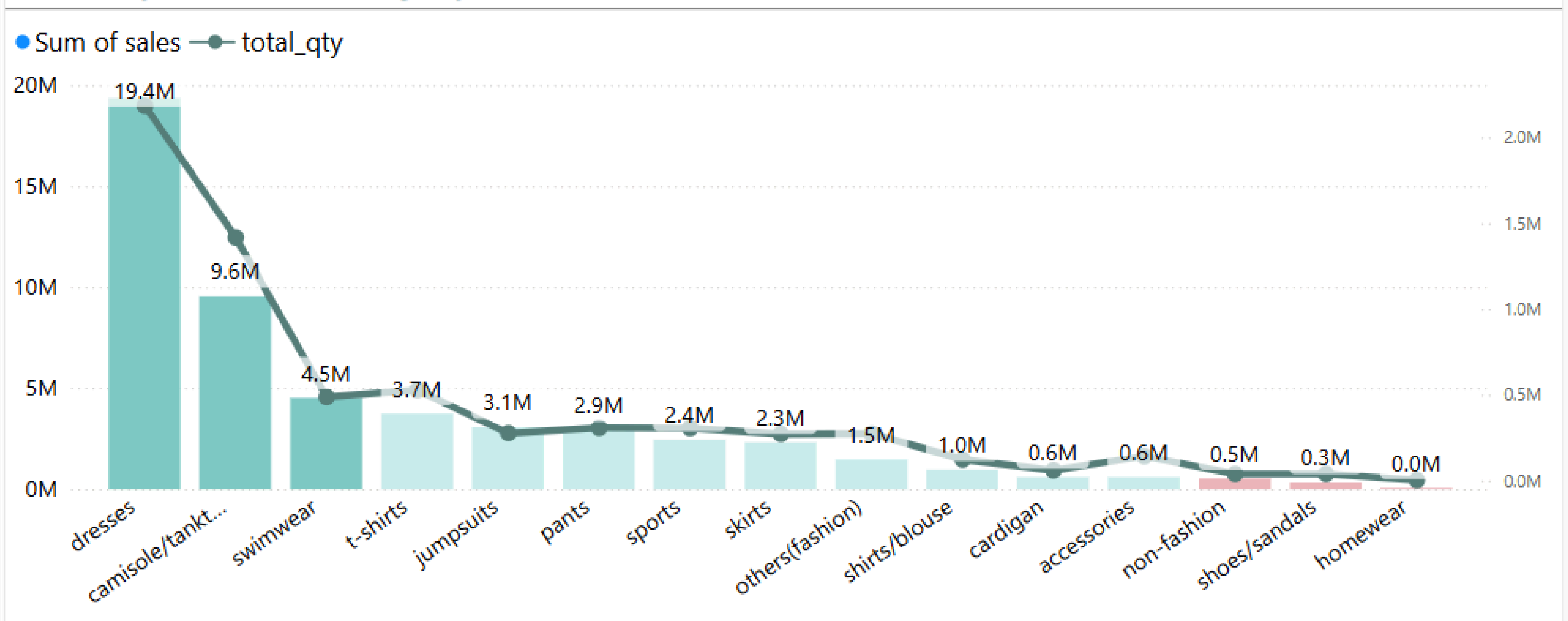
04 Merchant Analysis

- Is there a relationship between setting up a profile logo and sales?
- What do other factors affect sales?
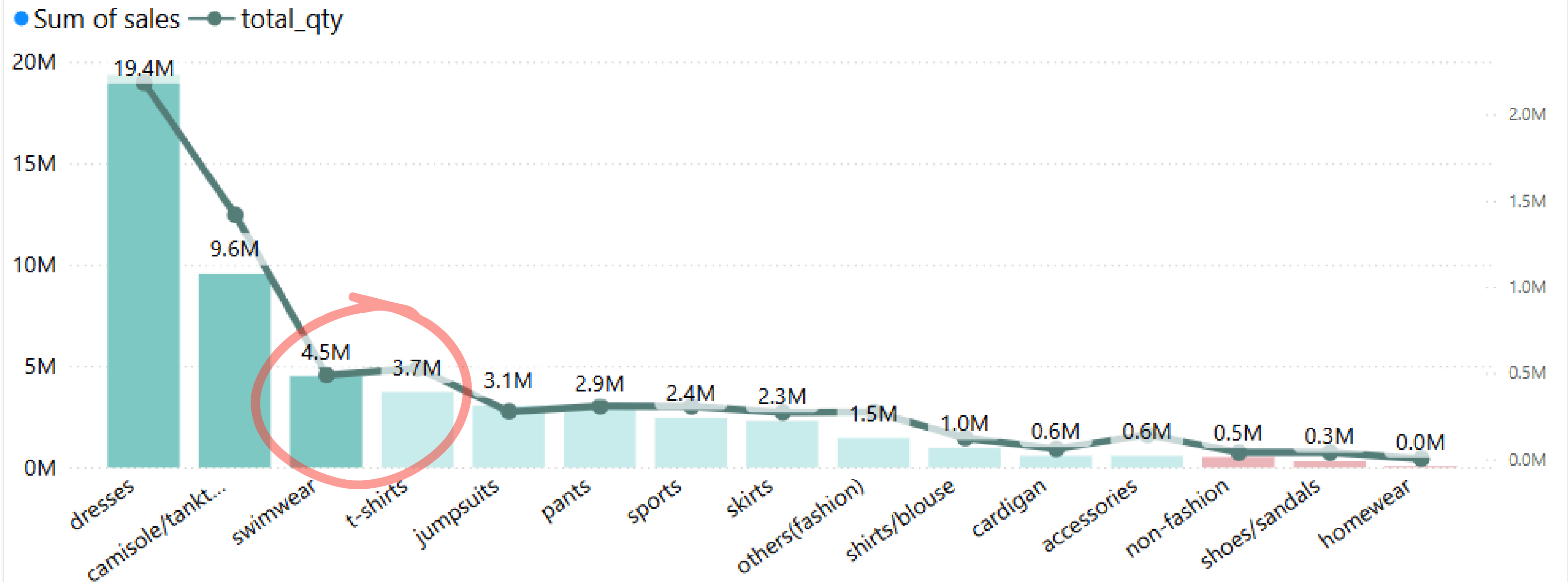
PRODUCT CATEGORY

Top-selling & Unpopular Categories

Sales by Product Category

● Sum of sales **━●━ total_qty**

Best-selling products: dresses, camisoles/tank tops, swimwear
Least-selling items: non-fashion, shoes/sandals, homewear
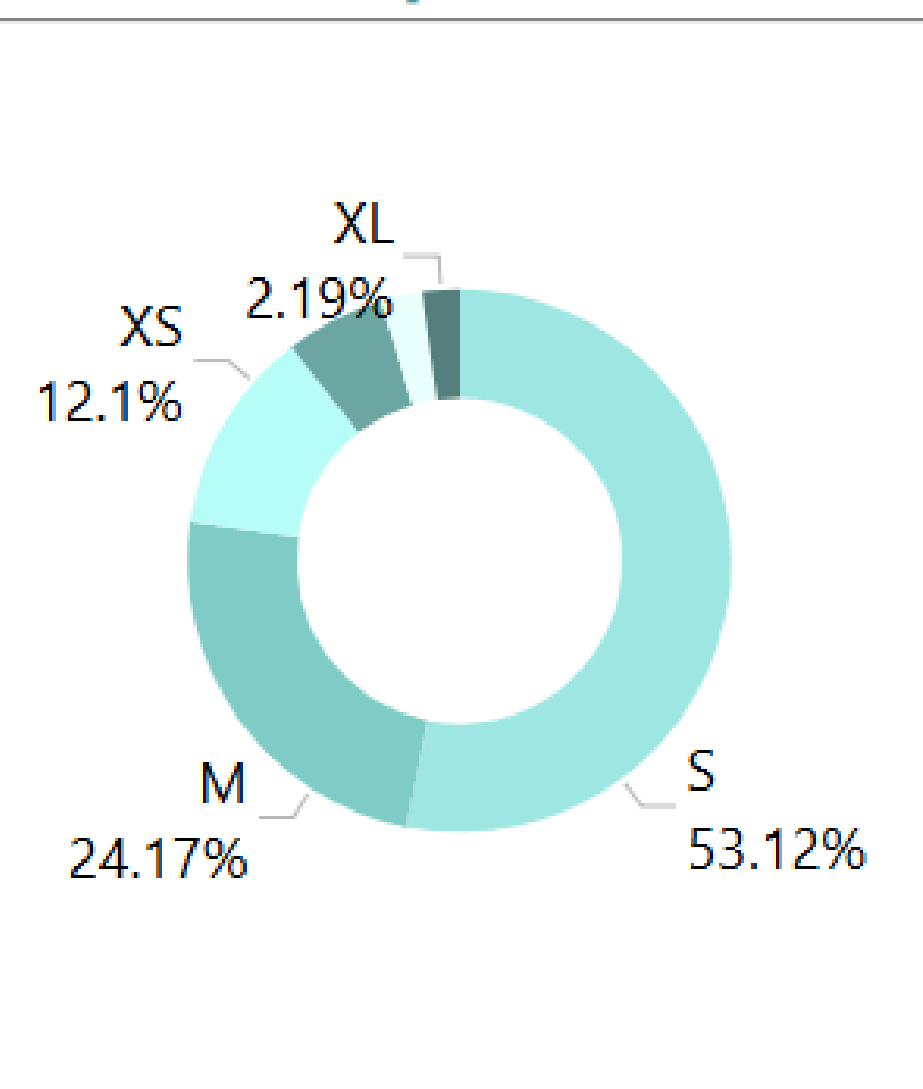
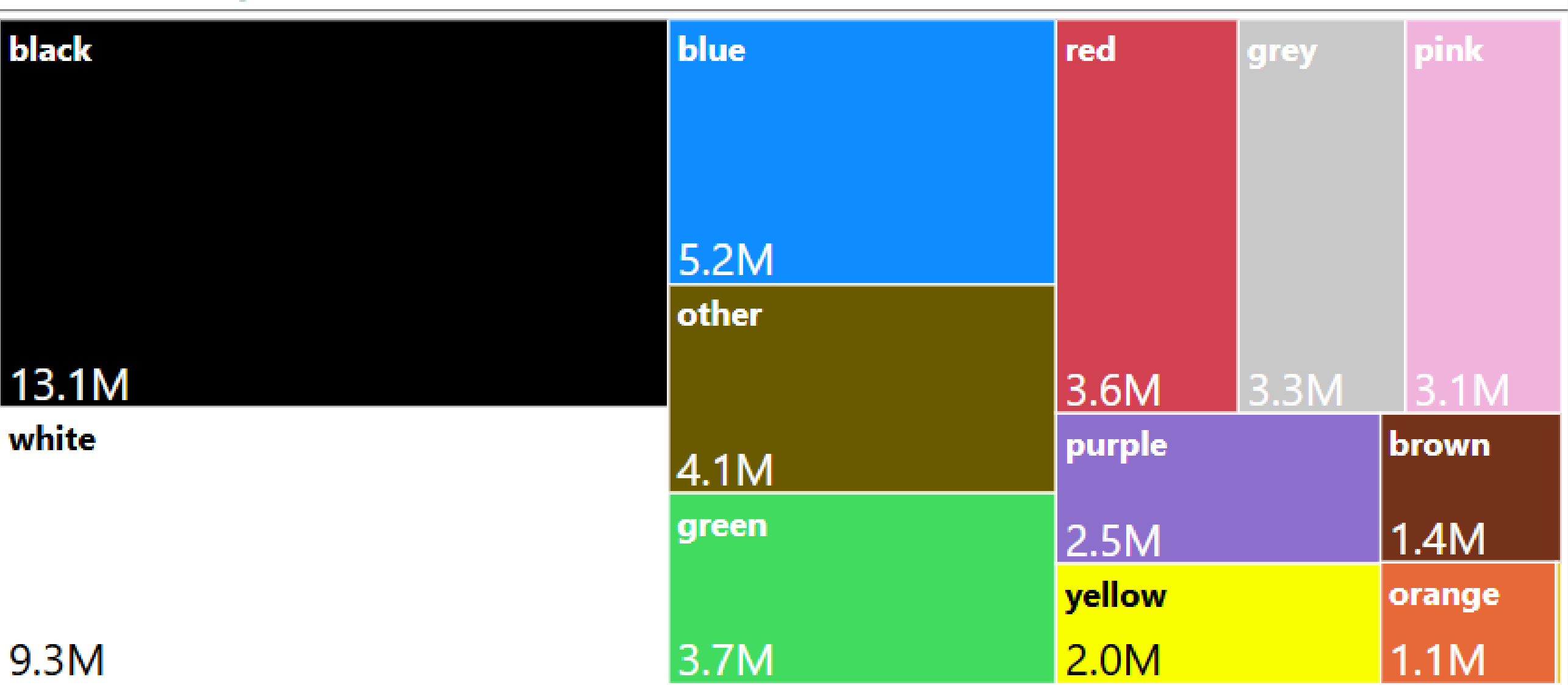# Sales by Product Category

● Sum of sales ─●─ total_qty

Total sales & total sales quantity volume are not always the same.
Swimwear generates higher sales, but t-shirts have a higher sales quantity.

The Most Popular Colors and Sizes in all category

Total Sales per Size

XL 2.19%
XS 12.1%
M 24.17%
S 53.12%

Total Sales per Color

black 13.1M
white 9.3M
blue 5.2M
other 4.1M
green 3.7M
red 3.6M
grey 3.3M
pink 3.1M
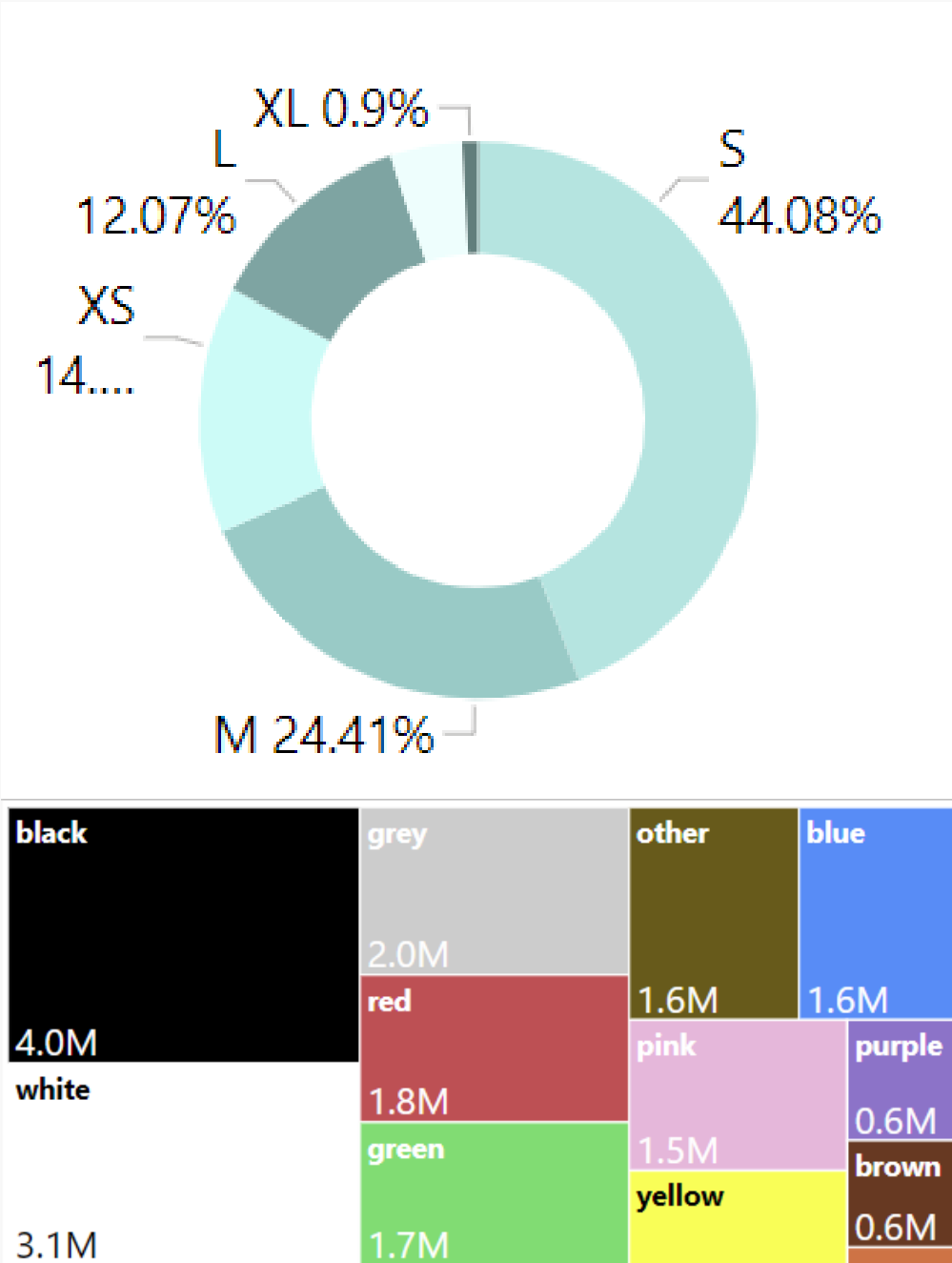purple 2.5M
brown 1.4M
yellow 2.0M
orange 1.1M

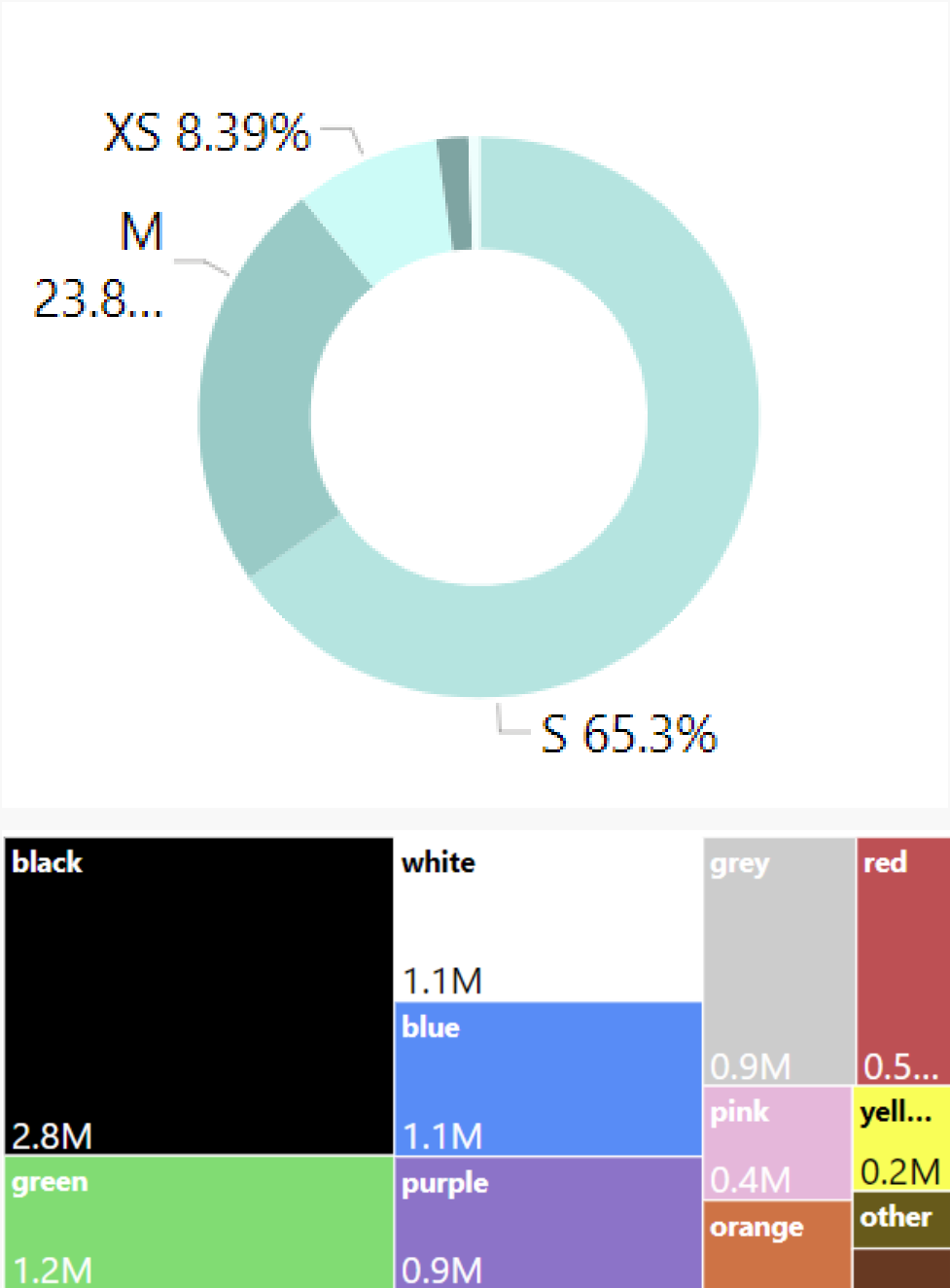Most **popular sizes**: **S**(53.1%) , **M**(24.2%)

Most **popular colors**: **black** (13.1M), **white** (9.3M) →42%

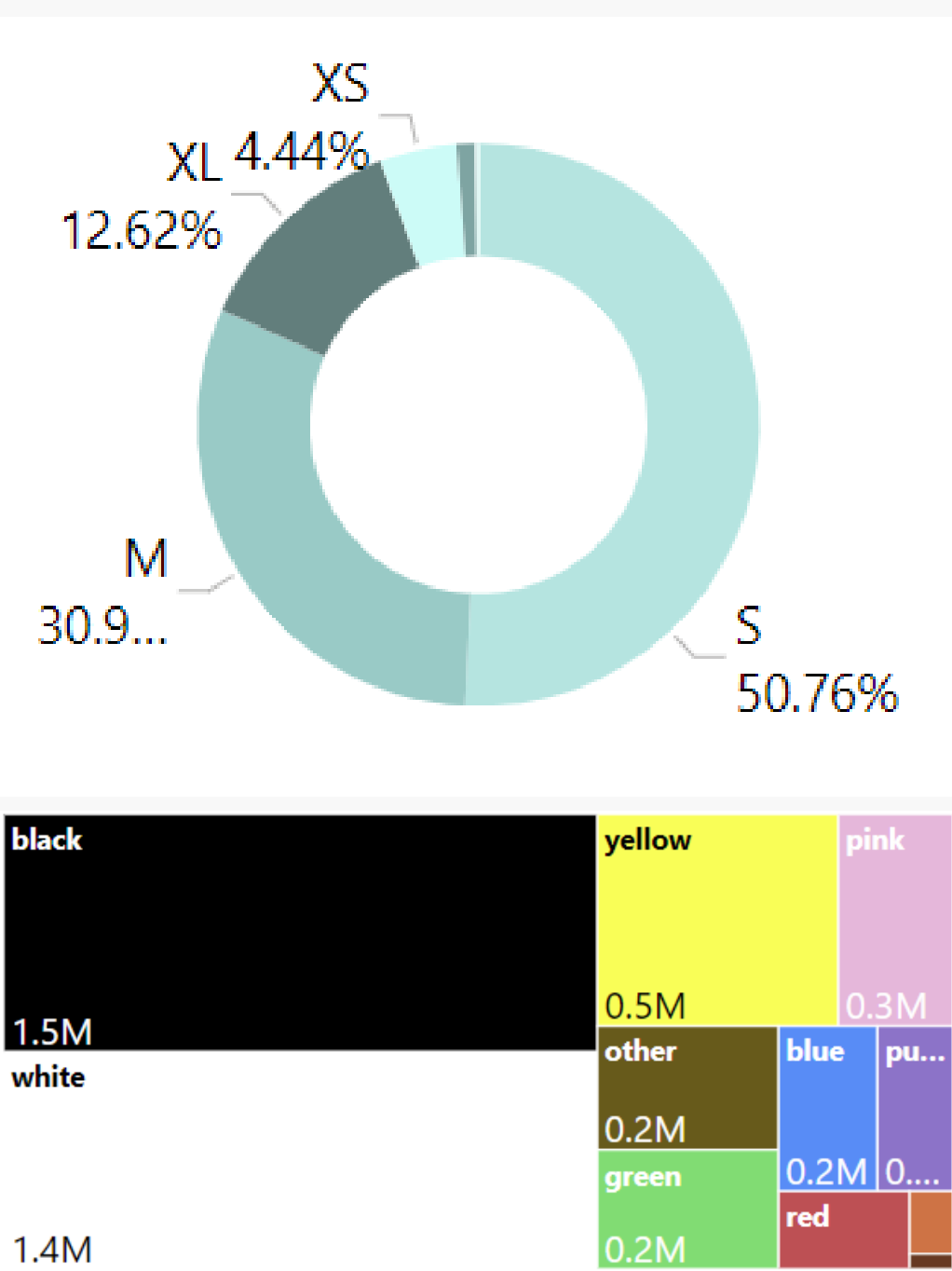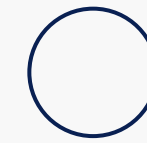# Popular Color and Size in Top 3 selling categories

Dresses

- XL 0.9%
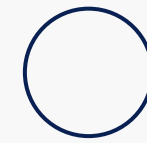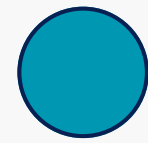- L 12.07%
- XS 14....
- S 44.08%
- M 24.41%

black 4.0M	grey 2.0M	other 1.6M	blue 1.6M
	red 1.8M	pink 1.5M	purple 0.6M
white 3.1M	green 1.7M	yellow	brown 0.6M

Camisoles&Tanktops

- XS 8.39%
- M 23.8...
- S 65.3%

black 2.8M	white 1.1M	grey 0.9M	red 0.5...
	blue 1.1M	pink 0.4M	yell... 0.2M
green 1.2M	purple 0.9M	orange	other

Swimwear

- XS
- XL 4.44%
- 12.62%
- M 30.9...
- S 50.76%

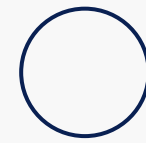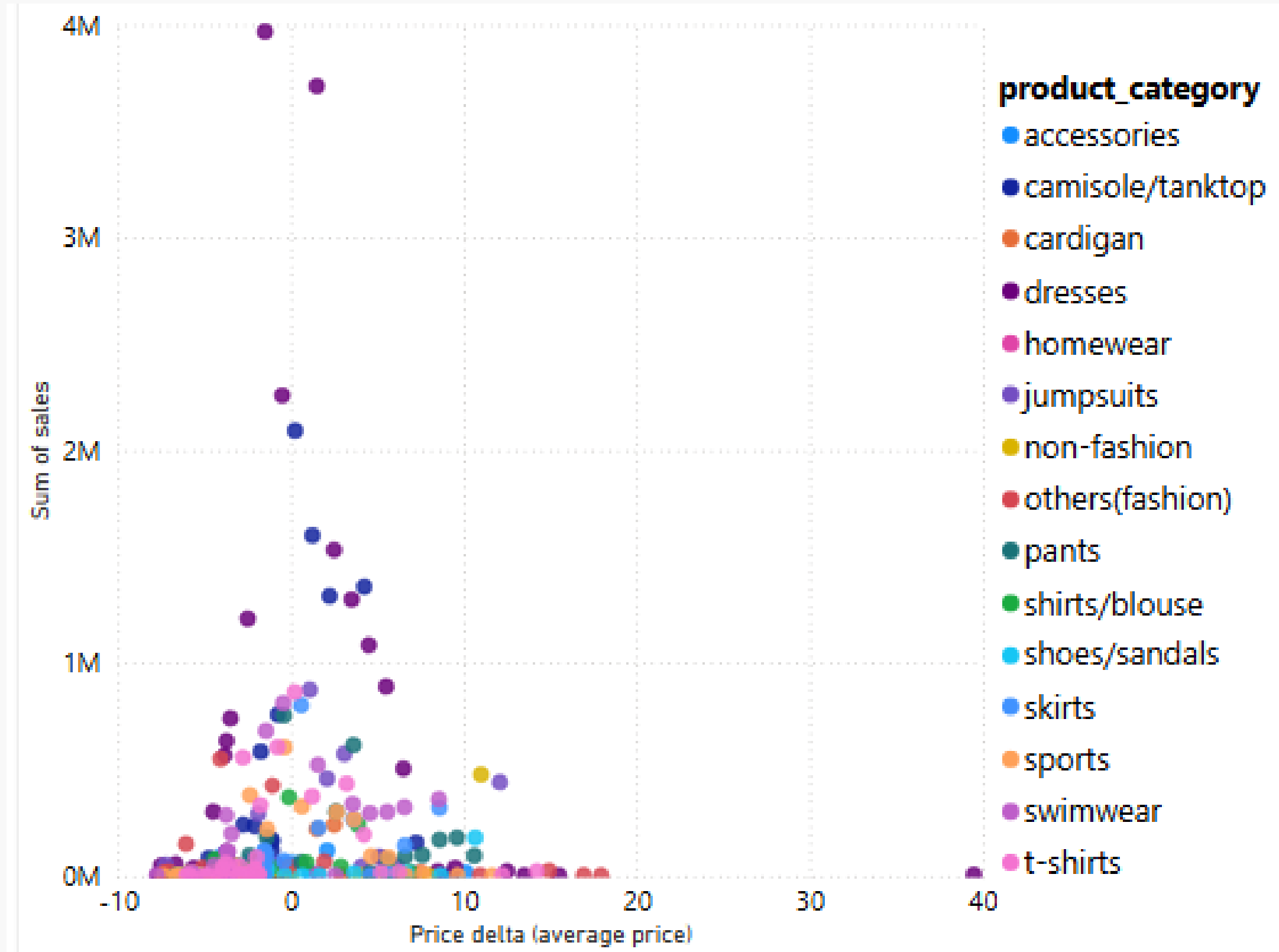|			
black 1.5M	yellow 0.5M		pink 0.3M
white 1.4M	other 0.2M	blue 0.2M	pu...
	green 0.2M	red	0...

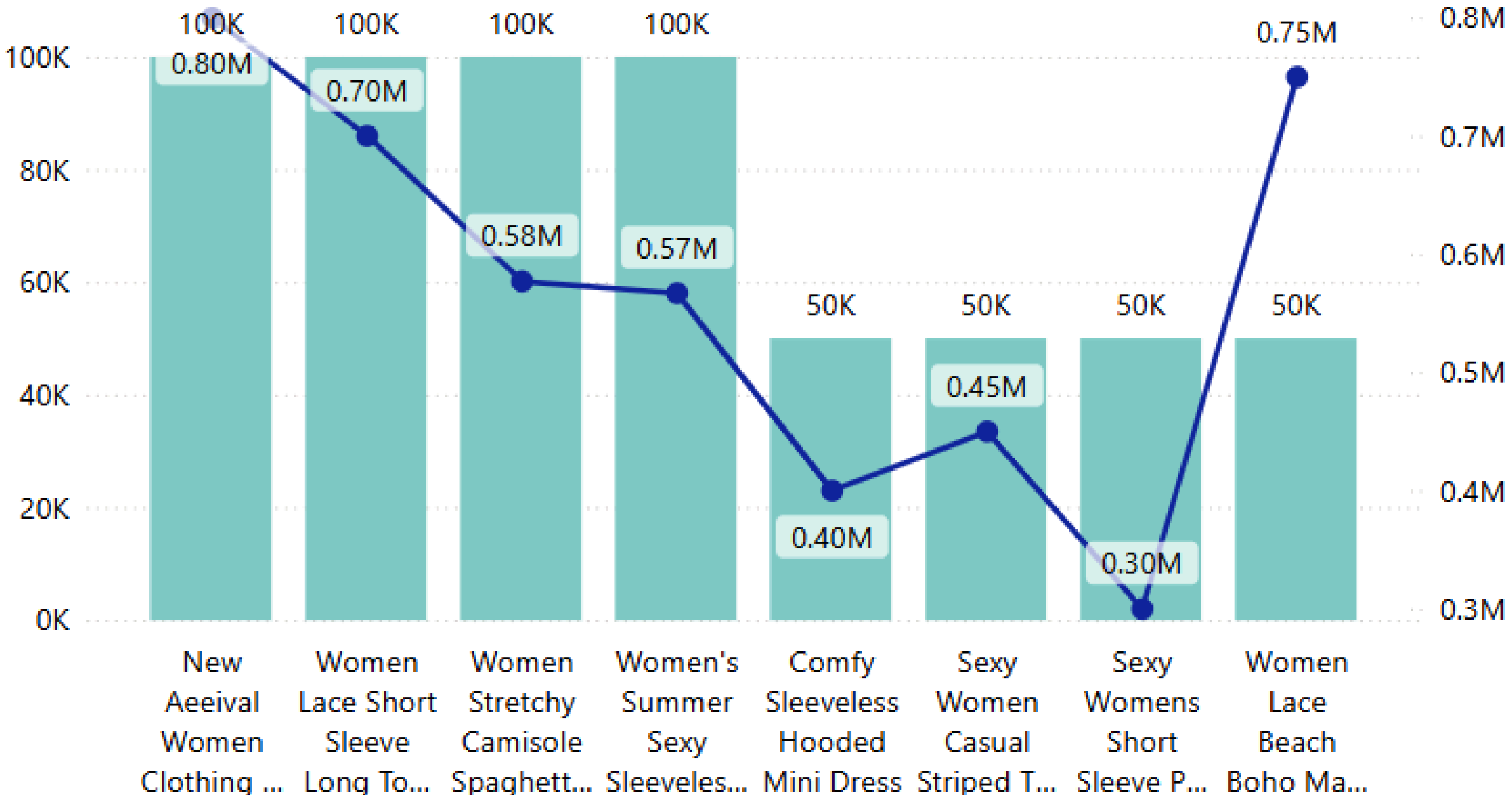# PRICE ANALYSIS

Prices affect Sales?

No correlationship between the **Discounts** and **Sales**

Top-selling Items

Top-Selling Items per Category & Price

● Sum of units_sold ● total_sales

title_orig	Avg_Price
New Aeeival Women Clothing Long Sleeve Autumn Winter Ball Gown Dress Slim Fit Patchwork Casual Lace Dress Vestido De Renda	8.00
Women Lace Short Sleeve Long Tops Blouse Shirt Ladies Beach BOHO Mini Dress 6-16	7.00
Women Stretchy Camisole Spaghetti Strap Long Tank Top Slip Mini Dress 4Color SIZE XXL is available Now	5.77
Women's Summer Sexy Sleeveless Turtleneck Mini Dress	5.67
Comfy Sleeveless Hooded Mini Dress	8.00
Sexy Women Casual Striped T-shirt Long Tops Blouse Kaftan Beach Shirt Mini Dress	9.00

Notice the top-selling items and
the avg price for each one

Items Selling Recommendation by Strategy

Dresses

PER VOLUME STRATEGY

New Aeeival Women Clothing Long Sleeve Autumn Winter ...	Women Lace Short Sleeve Long Tops Blouse Shirt Ladies Beach BO...	Women Stretchy Camisole Spaghetti Strap Long Tank Top S...	Women's Summer Sexy Sleeveless Turtleneck Mini Dress

PER VALUE STRATEGY

Women Lace Beach Boho Maxi Sundress Sleeveless Long ...	New Aeeival Women Clothing Long Sleeve Autumn Winter ...

Camisoles&Tanktops

PER VOLUME STRATEGY

2018 Summer Fashion Women Tank Tops Sexy Women Sleeveless ...	Fashion Women Back Deep V Sexy Backless Vest Tank Sleeveless Slim Top...	Plus Size Fashion Sleeveless Tank Tops For Women Sizes XS-5XL
Sexy Women Summer Vest Top Sleeveless Blouse Casual Tank Tops T ...	Summer Women Casual Sleeveless Loose Tops Solid Color Cotton Shirts...	Summer Women Chiffon Solid Color O-neck Sleeveless Top Sling Sexy Off ...
		Women's Striped Double Up Tankini Top

PER VALUE STRATEGY

Women's Striped Double Up Tankini Top
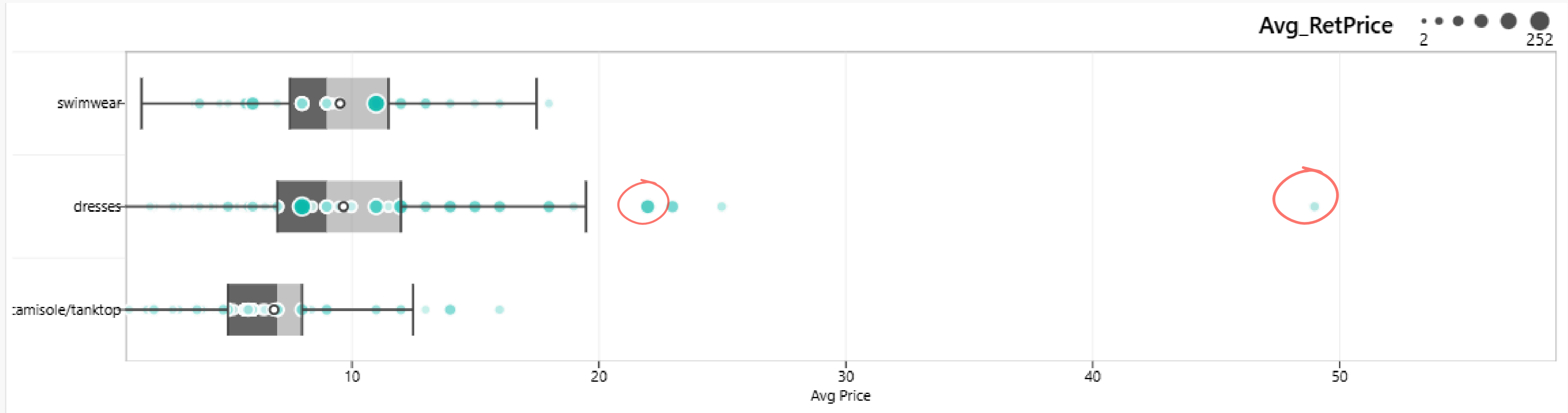
Swimwear

PER VOLUME STRATEGY

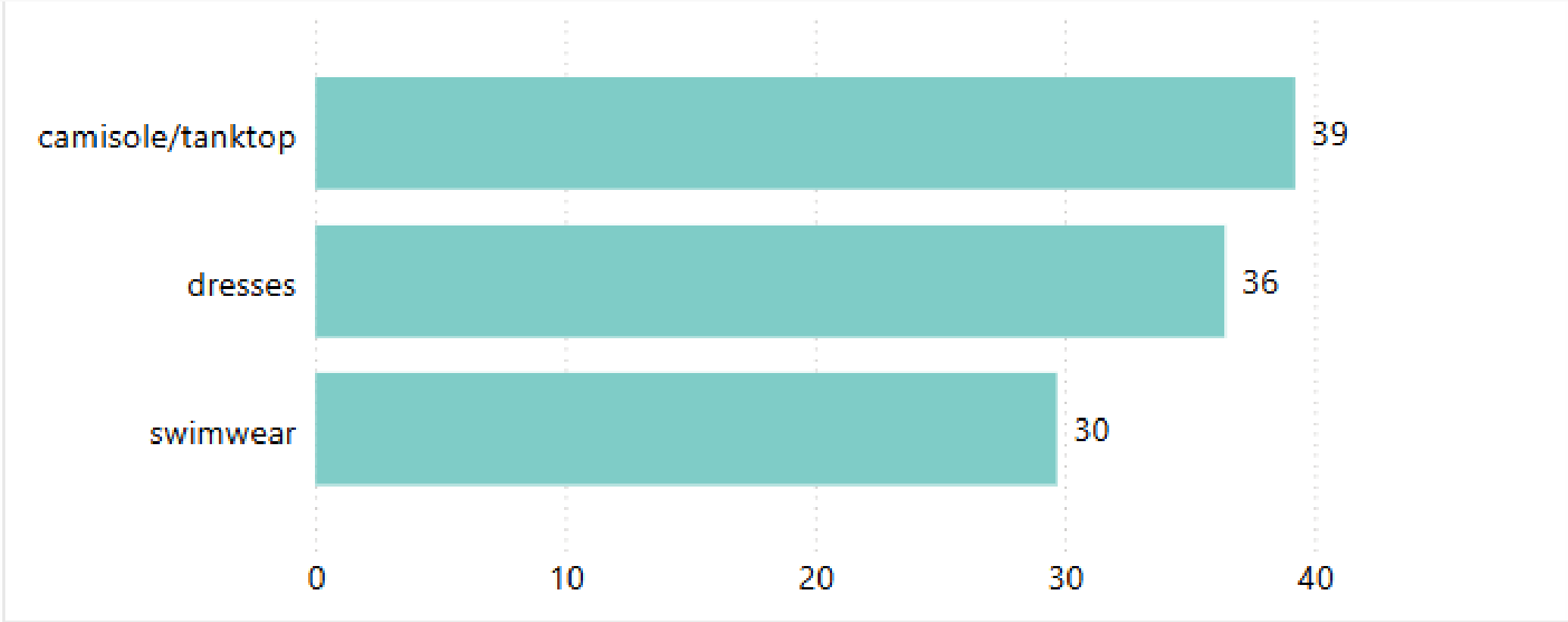|	
Hot Latest Sexy Bikini Women Fashion Swi...	Sexy Thong Cheeky Bottom Women Beac...

PER VALUE STRATEGY

Pandolah Hot Women One Piece Bathing Suit Dotted ...

Price Statistics

## Notice outstanding items over the average

Avg_RetPrice
2 ● ● ● ● ● ● 252

swimwear

dresses

camisole/tanktop

10   20   30   40   50

Avg Price

ce   22.00
Price   169.00
etPrice   169.00
le_orig   Women's Fashion Vintag
Dress Women Elegant Sle
Dress Summer Chic Party
Robe
gory   dresses

2.00
42.00
Summer Women's Fashion Slee
V-neck backless Dress Street Se
Party Dress
dresses

Retail Price Percentage

camisole/tanktop — 39
dresses — 36
swimwear — 30

Eg. A dress of $15 could have a retail price of 36% more (**marketing strategy**)

title_orig	Avg_Price
Women Lace Beach Boho Maxi Sundress Sleeveless Long Dress Party Holiday Strapless Dresses	15.00

Women Lace Beach Bo...
$15 $20.4
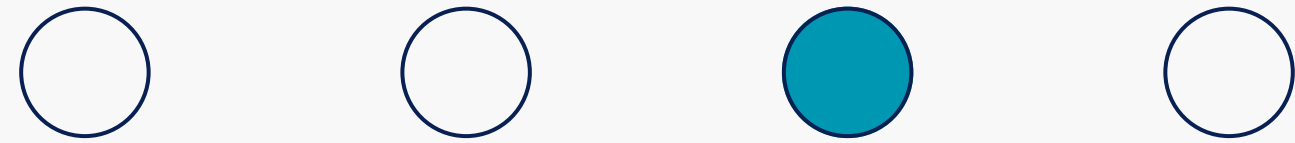
ADVERTISEMENT EFFECT

Difference in sales between ads and no ads

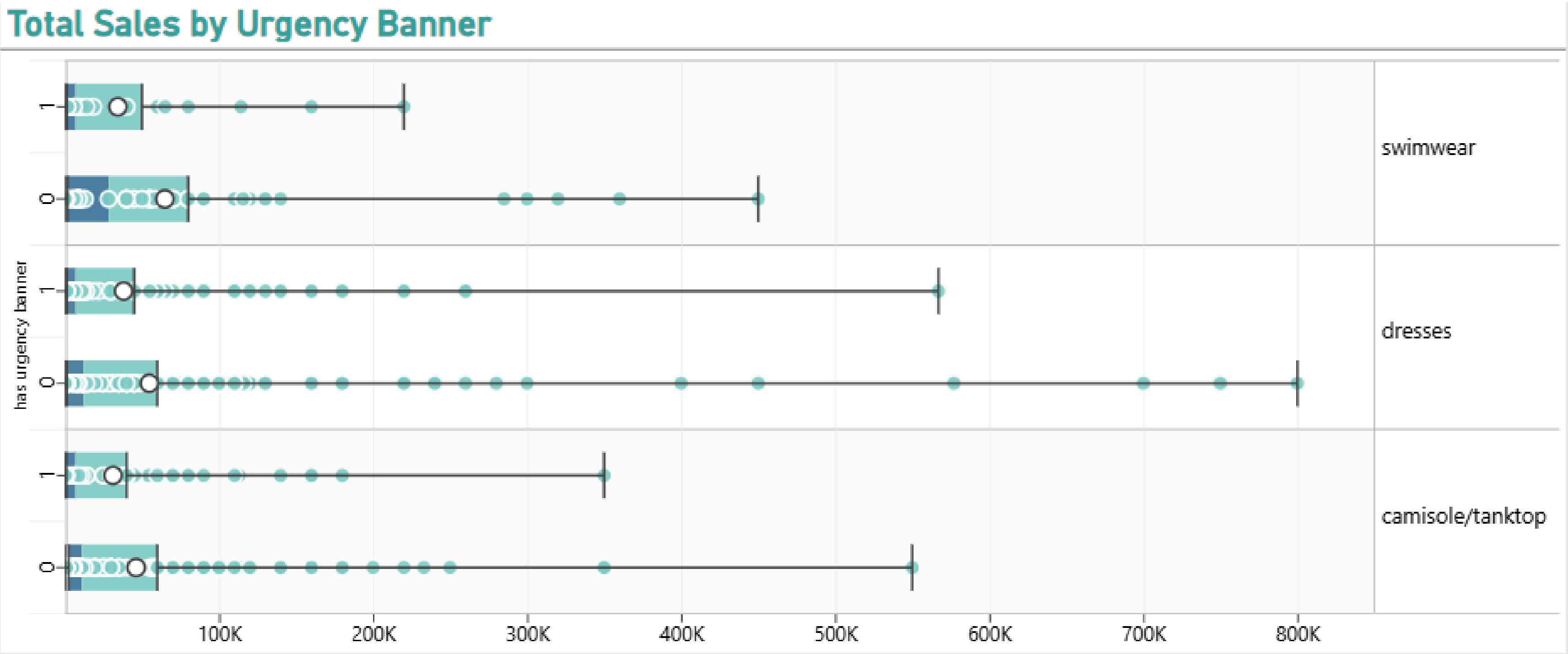**Total Sales by Ad Boosts**
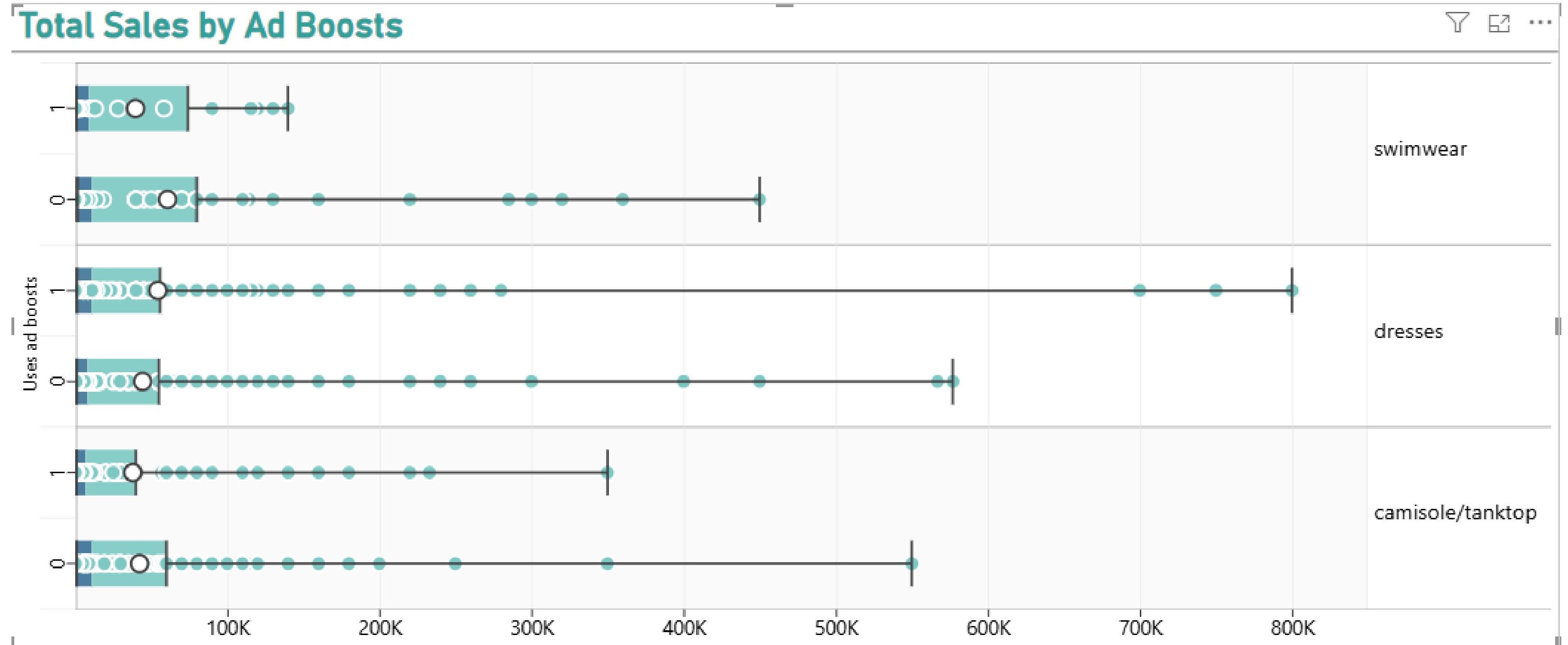
Only in the dress category, sales values are higher when advertisement are boosted compared to no advertisement

Difference in sales between urgency banner and no banner

Total Sales by Urgency Banner

Sales were higher when urgency banners were not used

MERCHANT ANALYSIS

Relationship between Merchant Rating and Sales

Category	Average of Merchant Rating	Count of Merchant Rating
camisole/tanktop	4.03	193
dresses	4.02	314
swimwear	4.13	78

Merchant Rating and Sales

has_profile_picture ● camisole/tanktop ● dresses ● swimwear
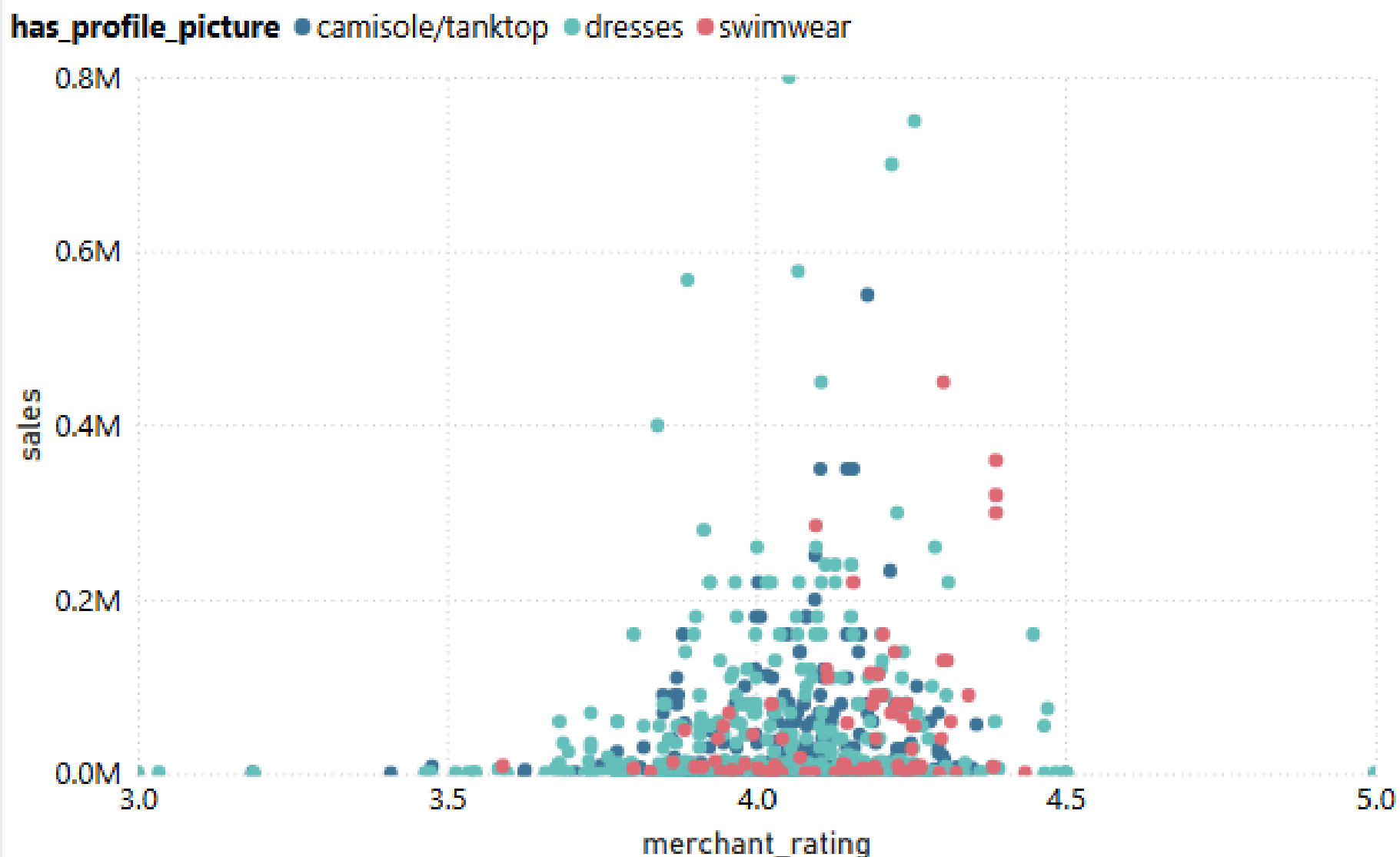
There is **no strong correlation between merchant rating and sales** in the top three best-selling categories

Relationship between Merchant Profile Logo and Sales

Xintianji Official Store
90%is positive | **1328**evaluation | Sales start:**2021**
★★★★⯪ 4.3

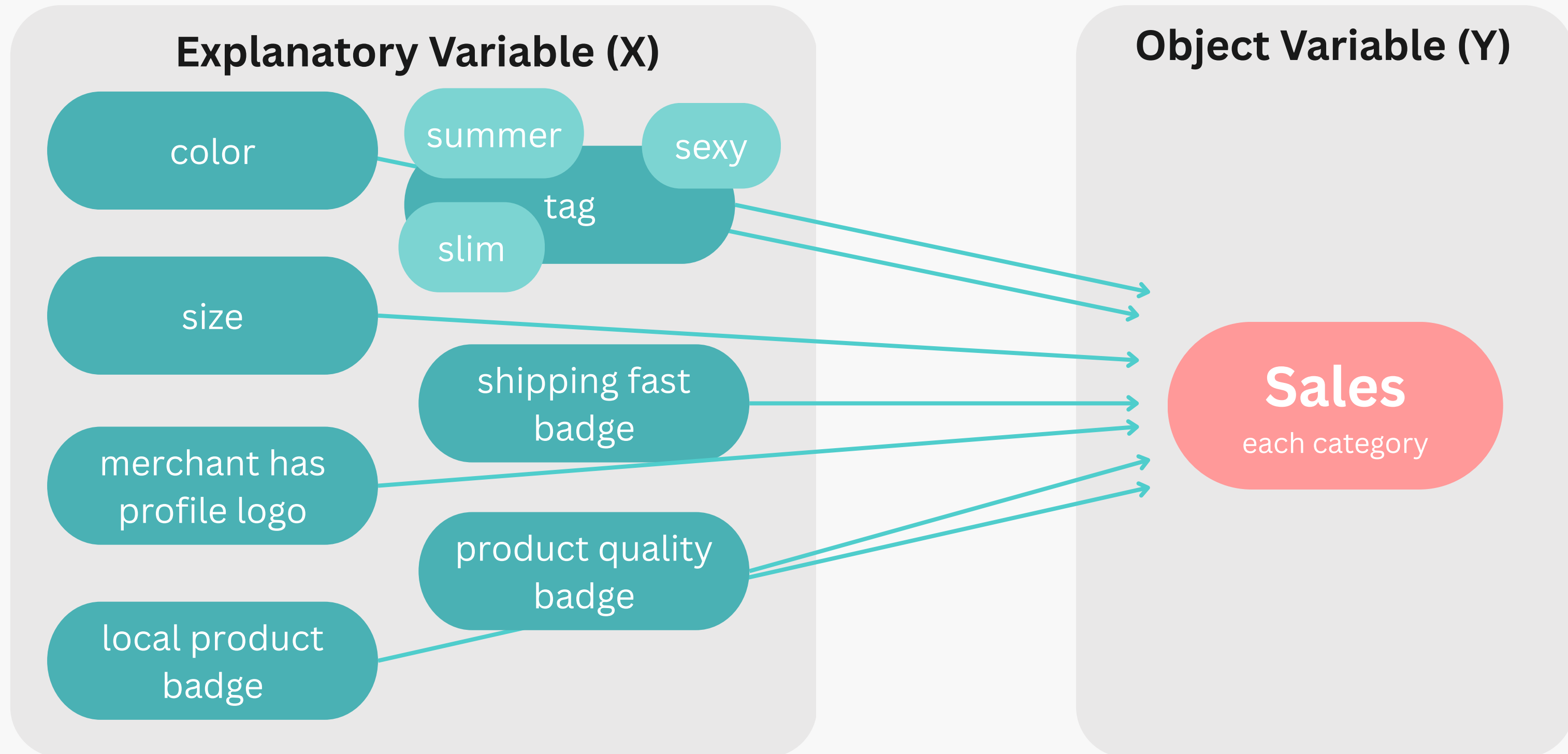## Total Sales per Merchant Profile Picture
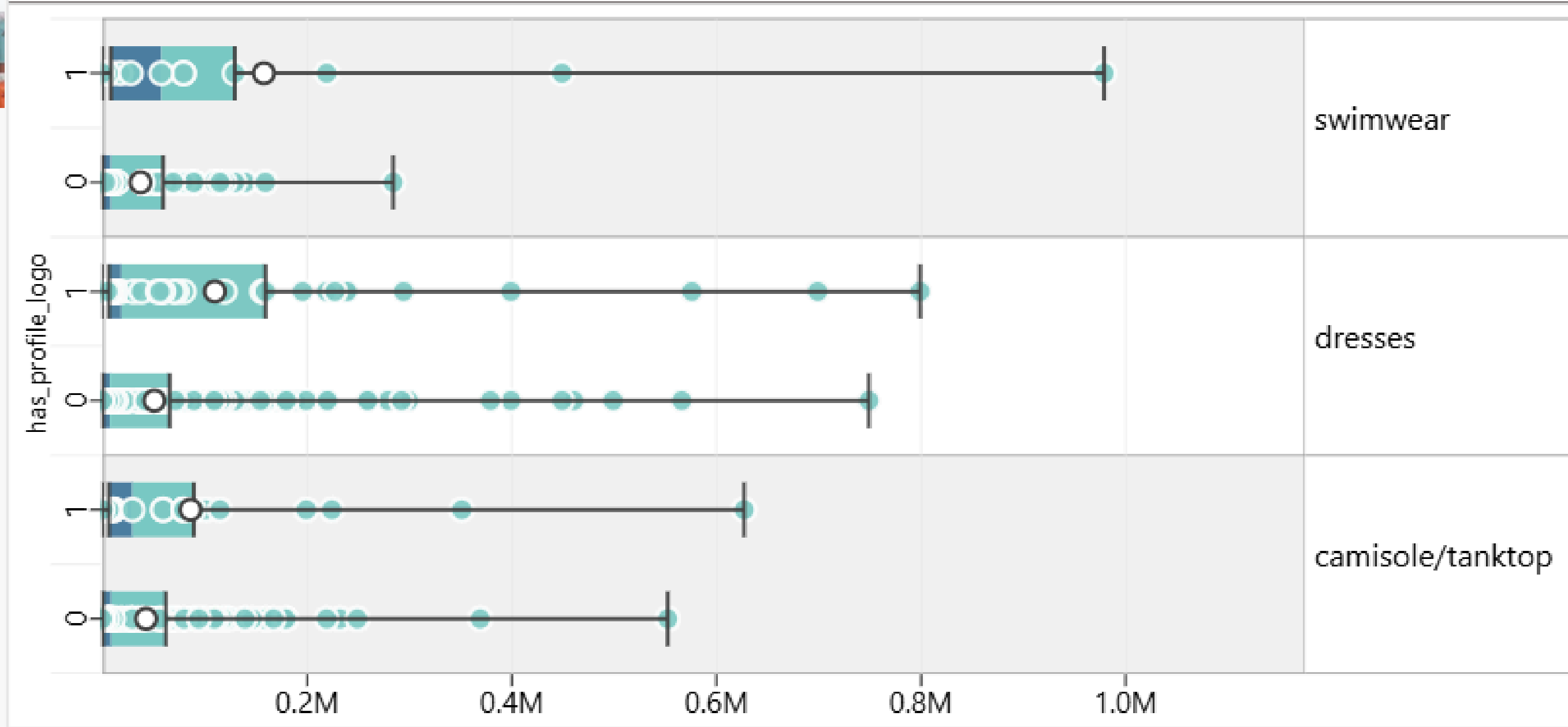
Merchants with a profile logo tend to have higher sales
compared to those without one

Sales Factors Analysis

To accurately identify factors associated with sales, we conducted a multiple regression analysis.
multi regression model: $Y=\beta 0+\beta 1X1+\beta 2X2+...+\beta nXn+\varepsilon$

Analysis Result

👗 Dress

Column1	Coef.	P>|t|
Lace	33775.41	0.043881
merchant_has_profile_picture	33445.43	0.014516
sexy	29971.7	0.018964
Plus Size	-24733.67	0.019437
flg_white	-69261.31	0.027314
flg_pink	-73588.93	0.026858
flg_red	-73938.33	0.021531
flg_yellow	-89951.33	0.00649

P value <= 0.05 statistically significant

- Using "Lace", "sexy" as tags, setting up a profile logo are associated with higher sales
- Using "Plus Size" as tags and white/pink/red/yellow color are related to lower sales

👚 Camisole/Tank top

Column1	Coef.	P>|t|
sexy	30546.34	0.007136
merchant_has_profile_picture	28913.3	0.034852

- Using "sexy" as tags and setting up a profile logo are associated with higher sales

🩱 Swimwear

Column1	Coef.	P>|t|
merchant_has_profile_picture	85165.9	0.008263

- Setting up a profile logo are associated with higher sales

Conclusions

CATEGORIES	• Best selling products: dresses, camisoles/tank tops & swimwear • Popular sizes S/M • Popular color Black/White
PRICE	• Discounts don´t affect sales • Go for value strategy: for new seller, it´s easier to sell less products but expensive • Use biggest reatail percentage. The bigger the discount is, more attractive is the product
ADS	• Ads don´t boost sales. Dresses is an isolated case, where ads contribute to sales • Urgency banners don´t boost sales
MERCHANT	• No correlationship between merchant and sales • However, having a profile logo is related with higher sales • Tags are important: For dresses use lace/sexy. For camisole/top use sexy. And, for swimwear set a profile logo

Suggestions

A new seller should focus on the following strategies to make sales: VALUE STRATEGY

01	**Black small size dress** • Set up a shop profile logo and use keywords "sexy" and "lace" as tags • No urgency banner, red, yellow, white, pink color • Start with "New arrival women clothing sleeve ..." (54bdf18039bc045f118936a) with a price of $8 and retail price of $10.88
02	**Black small size camisole/tank top** • No urgency banner • Set up a shop profile logo and use keywords "sexy" as tags • Start with "Women´s Striped Double Up Tankini ..." (574ff29cb4b28660d9f94d3f) with a price of $11 and retail price of $15.29
03	**Black small size swimwear** • No urgency banner • Set up a shop profile logo • Start with "Pandolah Hot Women One ... " (5656be5c8f5f02126fd6babc) with a price of $18 and retail price of $23.4

Thank you very much!

DOCUMENTATION