

PRESENTED BY :

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TFG. Top Floor Gallery



RESALE MARKET ANALYSIS

PROBLEM STATEMENT



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THE STORY BEHIND

Top Floor Gallery (TFG) is a fashion store in Melbourne, Australia, specializing in luxury resale items from designer brands. They want to make more data-driven decisions for their business.

THE CHALLENGES

- Pricing inconsistencies
- Sourcing inefficiency
- Inventory ineffectiveness




WHY DATA MATTERS?

Data can help optimize pricing, improve sourcing, and refine inventory management for their business.

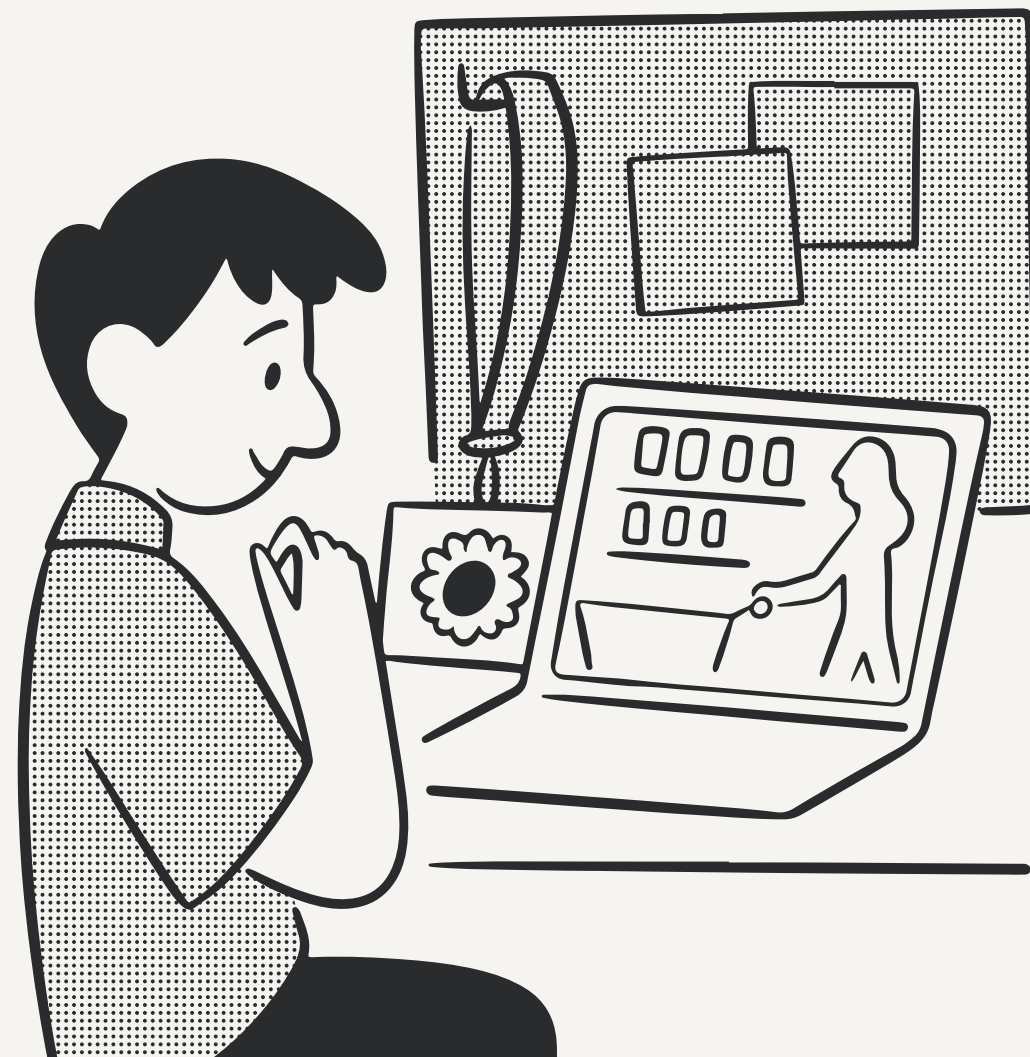
THE ACTUAL TASKS



MY APPROACH?

-  Smart pricing: identify best pricing for maximum resale value
-  Better sourcing: focus on brands and items that retain value
-  Efficient inventory: reduce slow-moving stock and optimize restocking

THE HOW?



DATA SOURCES

Raw dataset from Top Floor Gallery's sales records

TECH STACKS

- Python (pandas, seaborn, matplotlib) → Data Cleaning & Exploratory Data Analysis.
- Power BI → Dashboard for business insights.

KEY ANALYSIS CONDUCTED

- **Price analysis** → How should items be priced?
- **Value retention** → Which items hold value the best?
- **Stock turnover** → Which items sell fastest?

PRICING STRATEGY

WHICH BRAND DO BEST IN SALES AND VALUE RETENTION?

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IMPLICATIONS FOR TFG

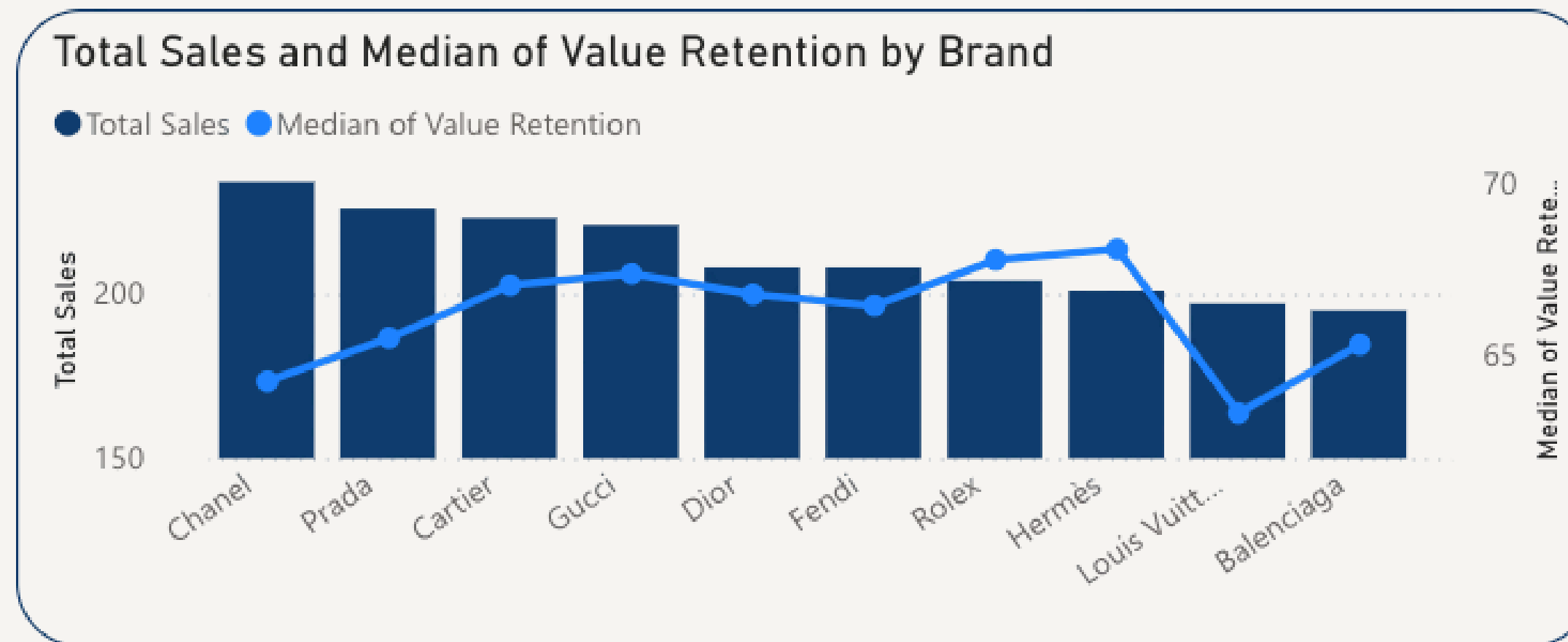


Figure 1. Total sales and median value retention by Brand.

- **Chanel, Prada, and Cartier** have the highest total sales despite moderate retention
- Luxury watches & jewelry (**Cartier, Rolex, Hermès**) retain value best.
- **Balenciaga** struggles in both sales & retention.

- Although some brand do not have very high retention, they are still sold in large volume, indicating strong popularity that drives sales. These items should be **marketed as trendy brand** in hope of quick turnover rate.
- Watches and jewelry – although do not generate very high sale volume, have been winning in terms of retention. These brand attract customers who **prioritise investment value** over trendiness.

PRICING STRATEGY

HOW SHOULD ITEMS BE SEGMENTED?

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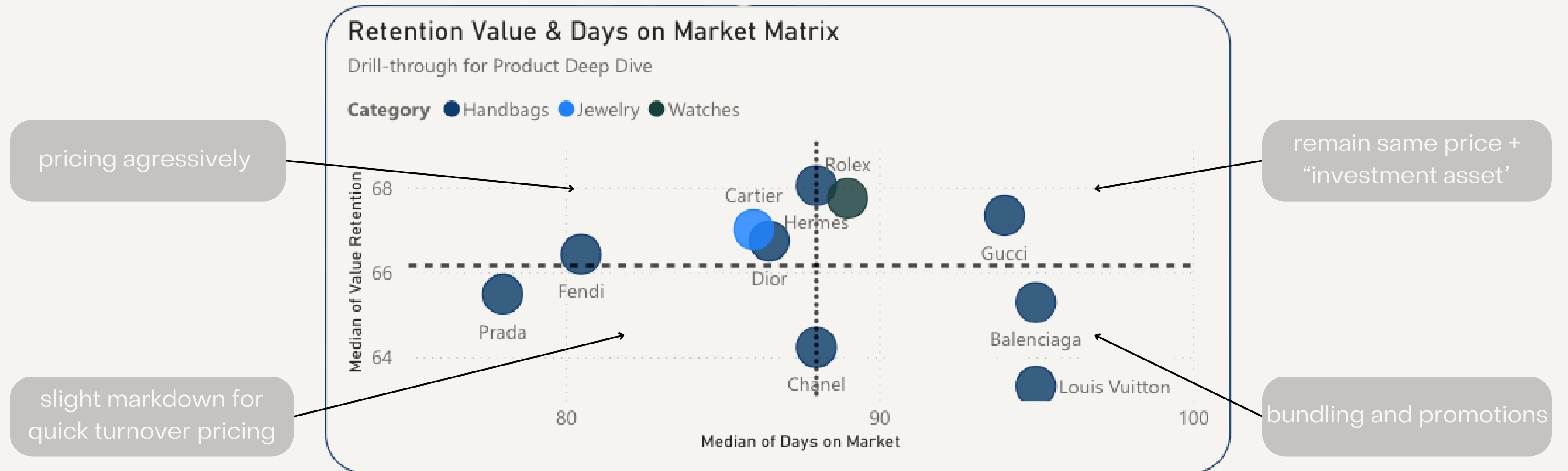


Figure 2. The pricing matrix - brand level.

PRICING STRATEGY

A CLOSER LOOK: EXAMPLE FROM PRADA PRODUCTS

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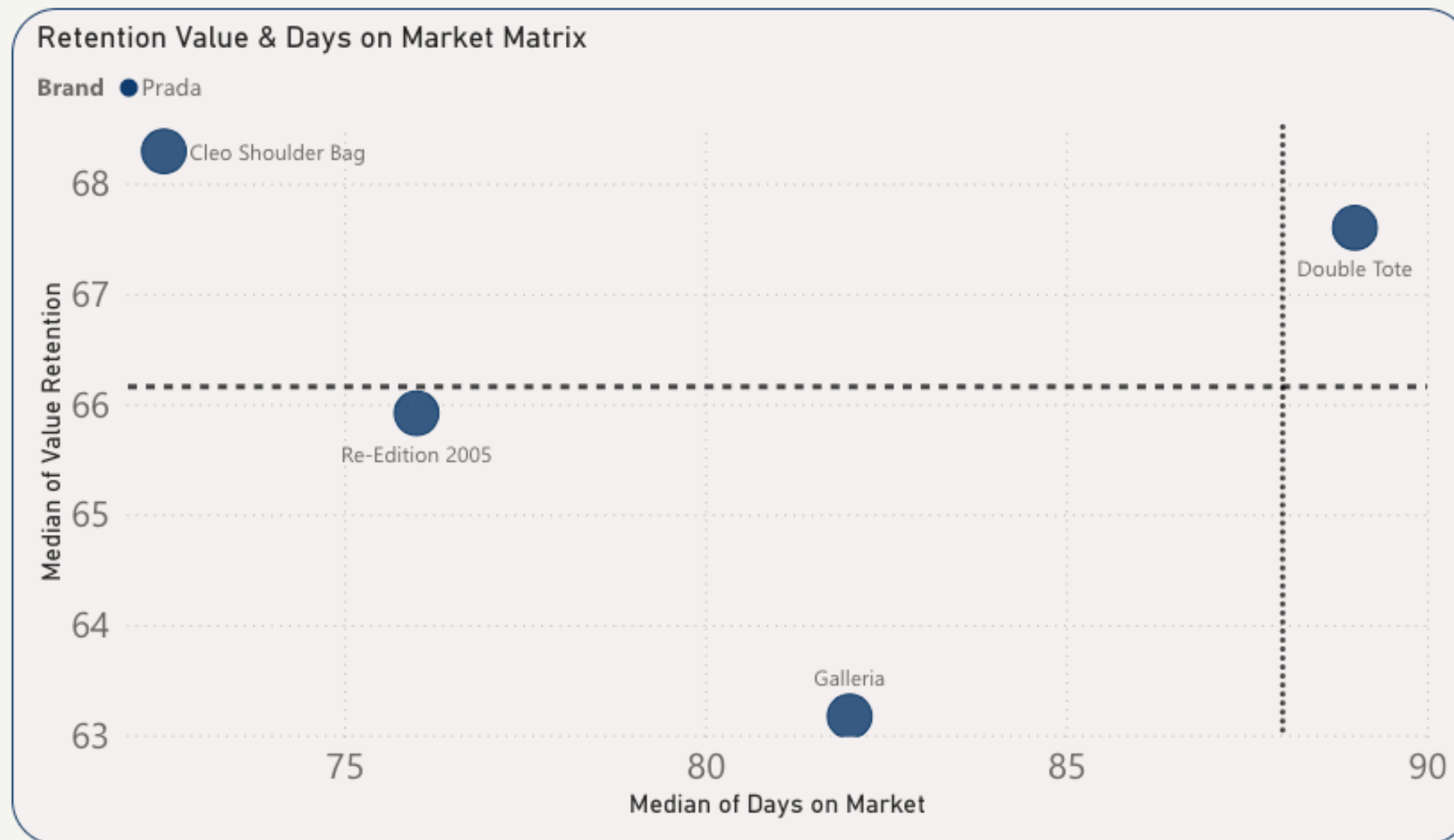


Figure 3. The pricing matrix – product deep dive.

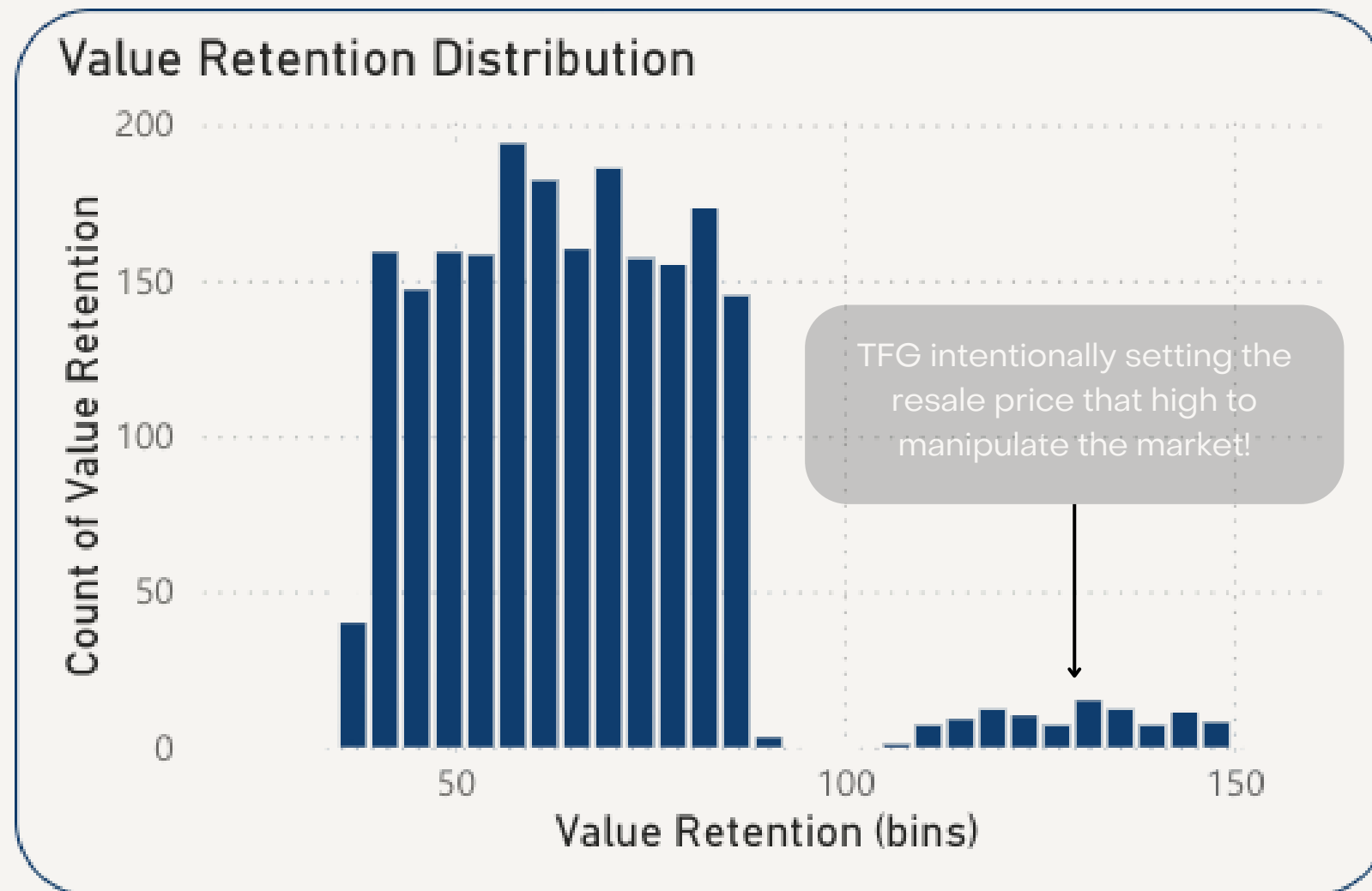
Take Prada as an example:

- As Cleo Shoulder Bag belongs to Quadrant 1 – Pricing aggressively, **its current resale price should be kept.**
- Re-Edition 2005 and Galleria should be **mark downed 10-15%** of their current price to avoid price loss.
- Double Tote should **remain the same and be advertised as “long-term investment”.**

PRICING STRATEGY

HOW EXACTLY TO PRICE THEM? THE BENCHMARK

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The majority of items' value retention falls within the **40-80%** range.

IMPLICATIONS FOR TFG

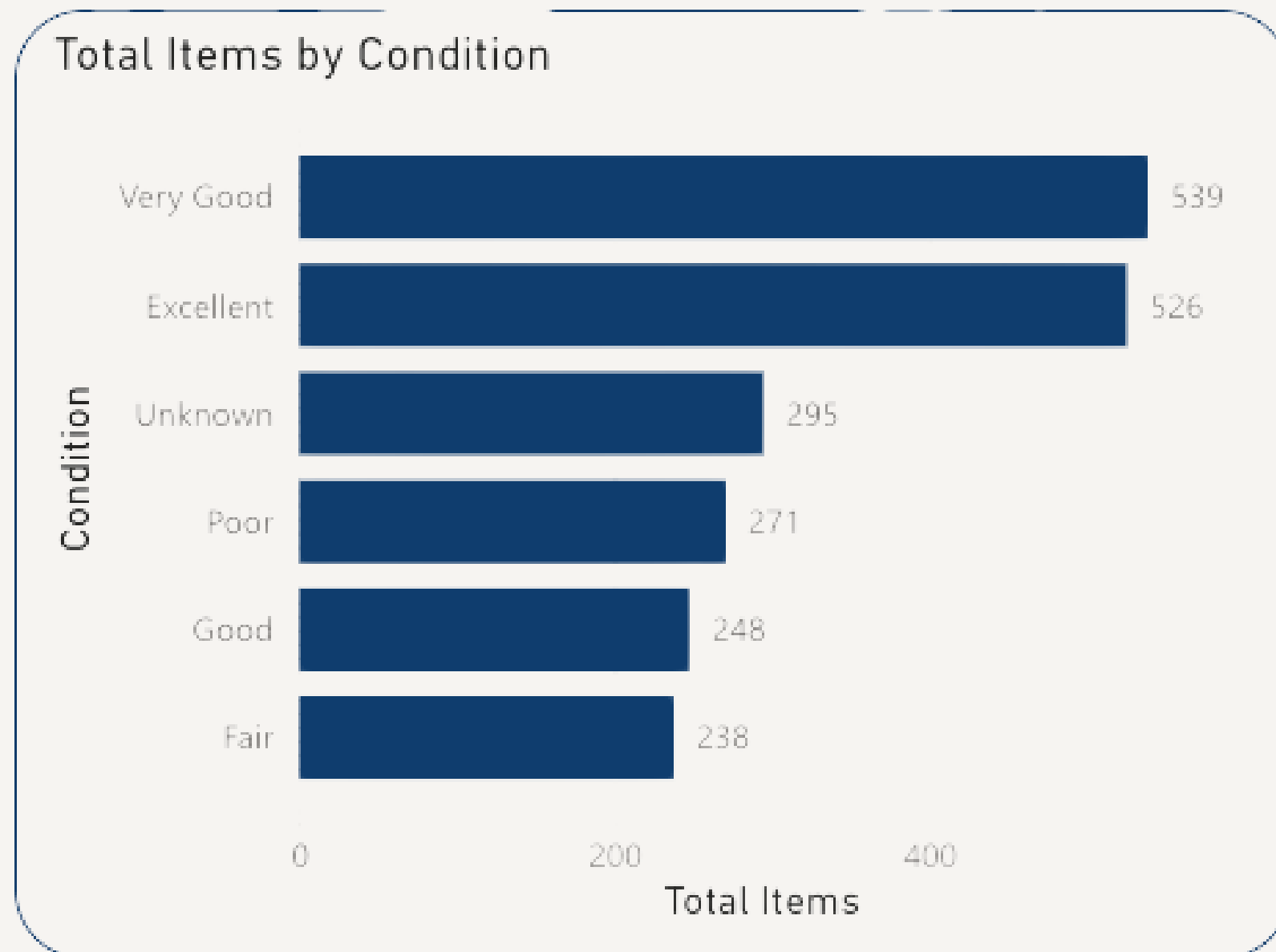
- Once items are listed on the resale market, they will lose **at least 20%** of their original price, and the majority are expected to hold only **50-60%** of their original value, depending on other factors such as condition, seasonality, and market trends.
- TFG should use this range as a **pricing benchmark**, combined with the pricing matrix to ensure resale items are competitively priced.

Figure 4. Value retention distribution.

SOURCING STRATEGY

HOW IS THE CURRENT SOURCING STRATEGY?

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The majority of items are in “**Very Good**” or “**Excellent**” conditions, indicating that TFG has high-quality inventory.

There is also a significant number of items with “**Unknown**” label. This is due to these items are in “mixed” condition which TFG is unable to classify.

WHAT DOES IT MEAN?

- TFG currently has **strong sourcing practices** as most inventory is in Very Good or Excellent condition.
- However, the labeling practice has some issues, given large amount of items with “Unknown” condition. TFG's labeling system can be refined to improve accuracy and customer trust.

Figure 5. Total items by Condition.

SOURCING STRATEGY

WHICH ITEMS HOLD VALUE THE BEST?

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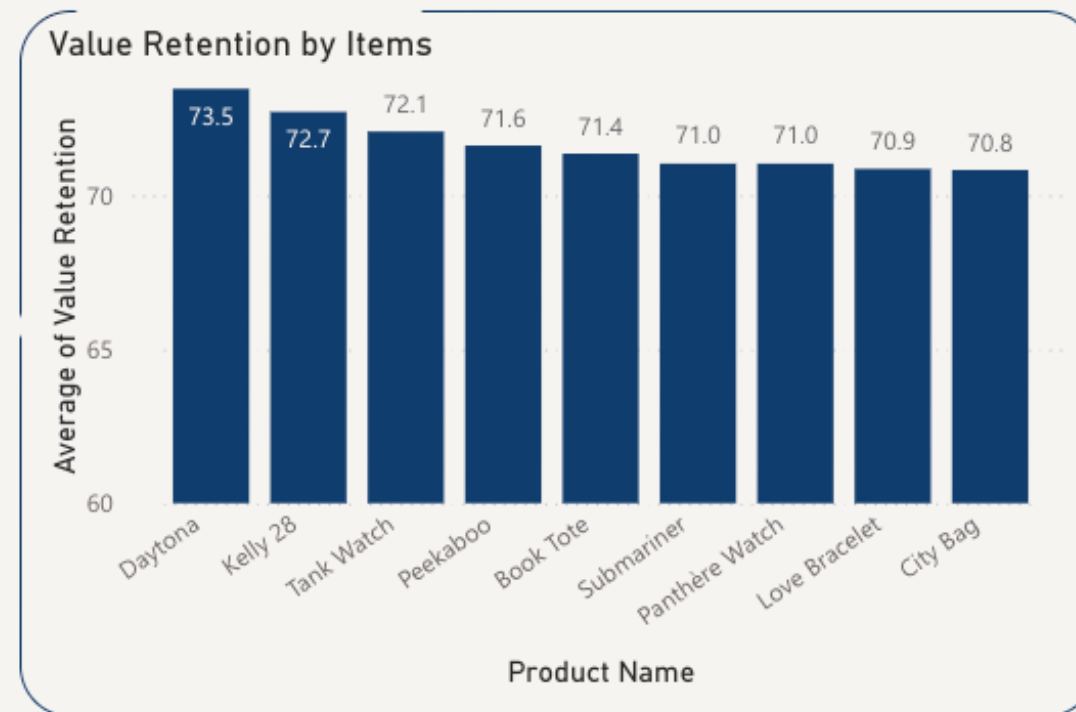


Figure 6. Items with highest value retention.

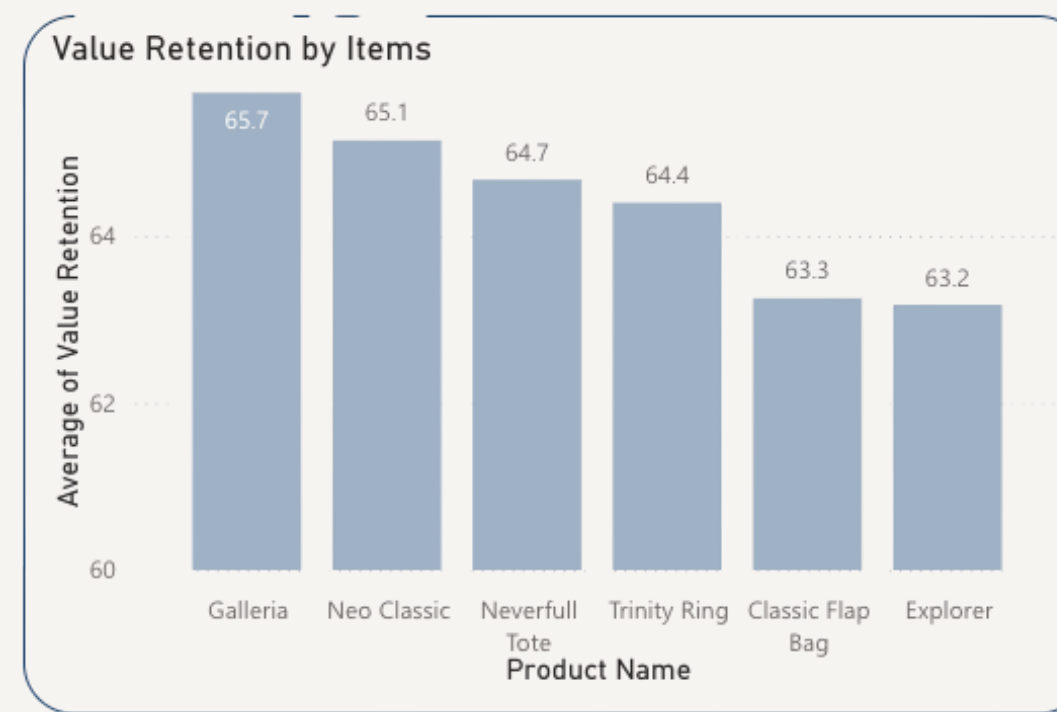


Figure 7. Items with lowest value retention.

Top value-retaining items include **Rolex Daytona, Hermès Kelly 28, Cartier Tank Watch, Fendi Peekaboo, Dior Book Tote, Rolex Submariner, Cartier Panthere, and Cartier Love Bracelet**. These items have 70% or more value retention, meaning that they lose the least amount of value when resold compared to their original price.

Items with most depreciated value include Galleria, Neo Class, Neverfull Tote, Trinity Ring, Classic Flap Bag, and Explorer.

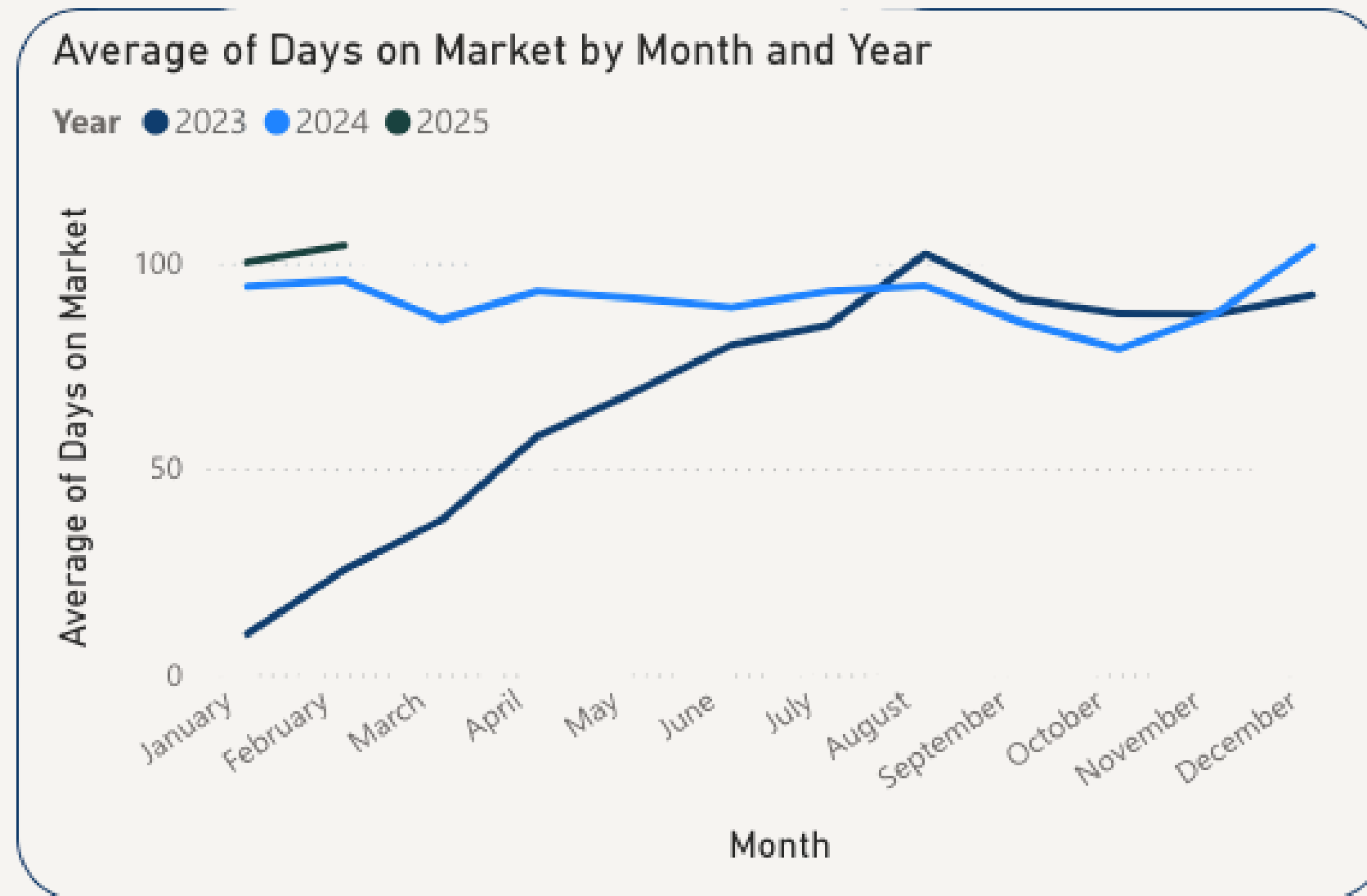
WHAT DOES IT MEAN?

- **Watches and Jewelry dominates** the high value-retaining list. This hints TFG to **prioritising sourcing** these items to generate high sales maximise the profit.
- Avoid over-investing in low-retention items, specifically lower-end handbags which are depreciated quickly once the trend passes.

INVENTORY MANAGEMENT

SEASONAL DEMAND IS SOMETHING TO WATCH OUT

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Days on market increased since mid-2023 with the peak at **100 days** and remain that high ever since. This means that once an item is listed, it usually take 80-100 days to sell that item.

March and October 2024 witnessed a slight drop in days on market, due to customers buying for holidays (Easter breaks and Summer/Christmas).

Having said that, the number is still high, meaning an item would take an average of 3 months to be sold. This could be attributed to customer's shifting behaviours as they no longer makes impulsive purchase due to global economic downturn and inflation in Australia.

Figure 8. Average of Days on Market by Month and Year

INVENTORY MANAGEMENT

WHICH BRANDS HAS HIGHEST STOCK TURNOVER RATE?

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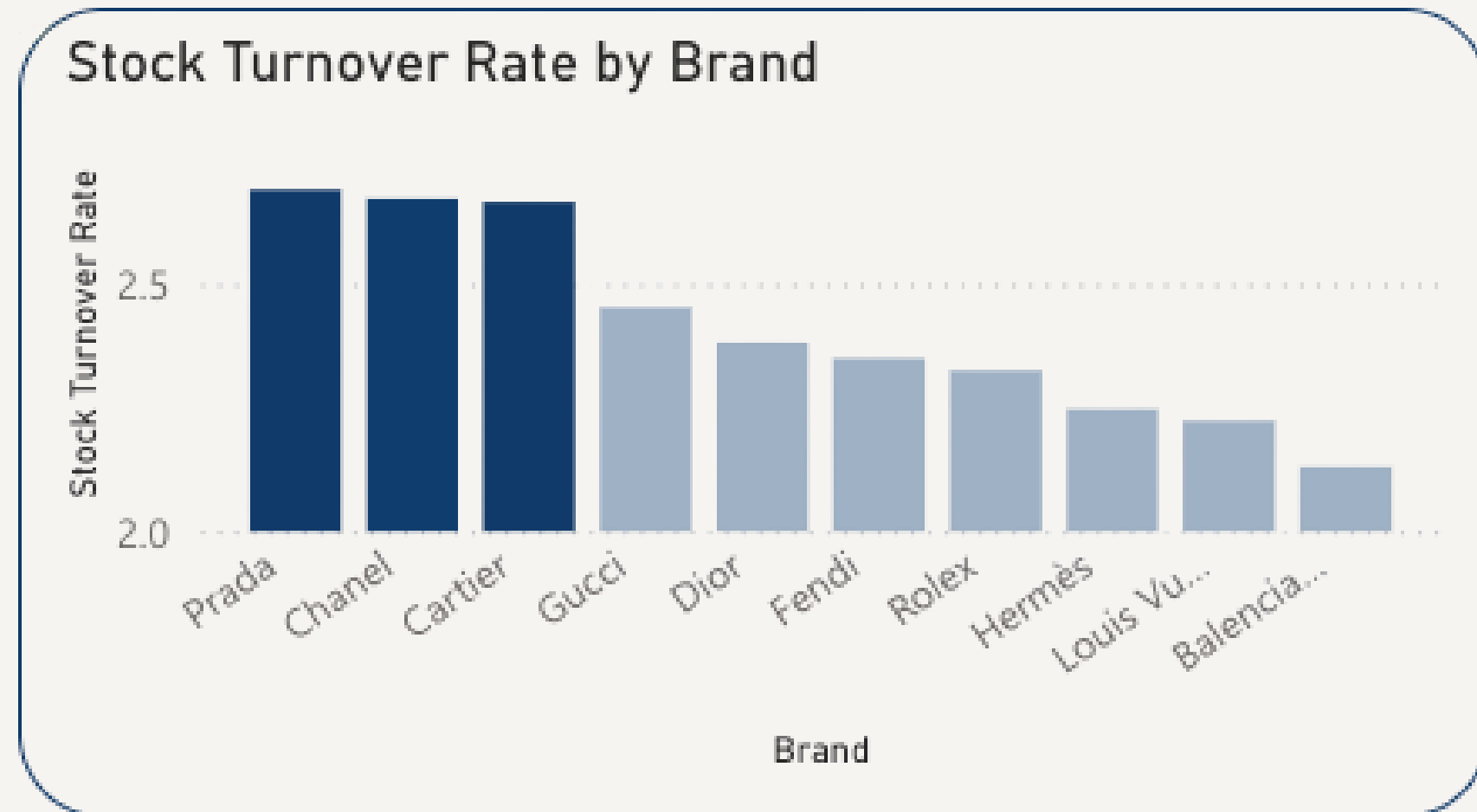


Figure 9. Stock turnover rate by Brands

- Prada, Chanel, and Cartier have the highest stock turnover rates, meaning their items sell quickly and frequently compared to other brands.
- Gucci, Dior, and Fendi have moderate turnover, suggesting steady but slightly slower sales cycles.
- Rolex, Hermès, Louis Vuitton, and Balenciaga have the lowest turnover rates, indicating longer selling times and potential overstock issues

WHAT DOES IT MEAN?

- Prada, Chanel, and Cartier bring in quick sale. These brands should be prioritised to ensure healthy cash flow.
- Different pricing, promotion, and marketing tactics are required for Hermes, LV, and Balenciaga as they are slow-moving brand.

INVENTORY MANAGEMENT

DO THE HIGHEST TURNOVER BRANDS ALIGN WITH THE HIGHEST RETENTION BRANDS?

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- High stock turnover rate does not guarantee high value retention
 - **Prada, Chanel, and Cartier** have the highest stock turnover rates but do not have the highest value retention (lighter blue line).
 - **Rolex and Hermès** have strong retention values, but their stock turnover is lower compared to other brands.
 - **Louis Vuitton stands out with very low retention and moderate turnover**, indicating that items sell at a high volume but depreciate quickly.
- The reason for this misalignment is the difference between fast-fashion versus investment prices
 - **High-turnover brands** like Prada & Chanel may attract **fashion-driven customers** who buy and resell frequently, but trendy items depreciate quickly.
 - **High-retention brands** like Rolex & Hermès are often **long-term investments**, so they take longer to sell but hold their value.
- This interesting phenomenon requires TFG to be cautious in both the pricing strategies and the inventory management.

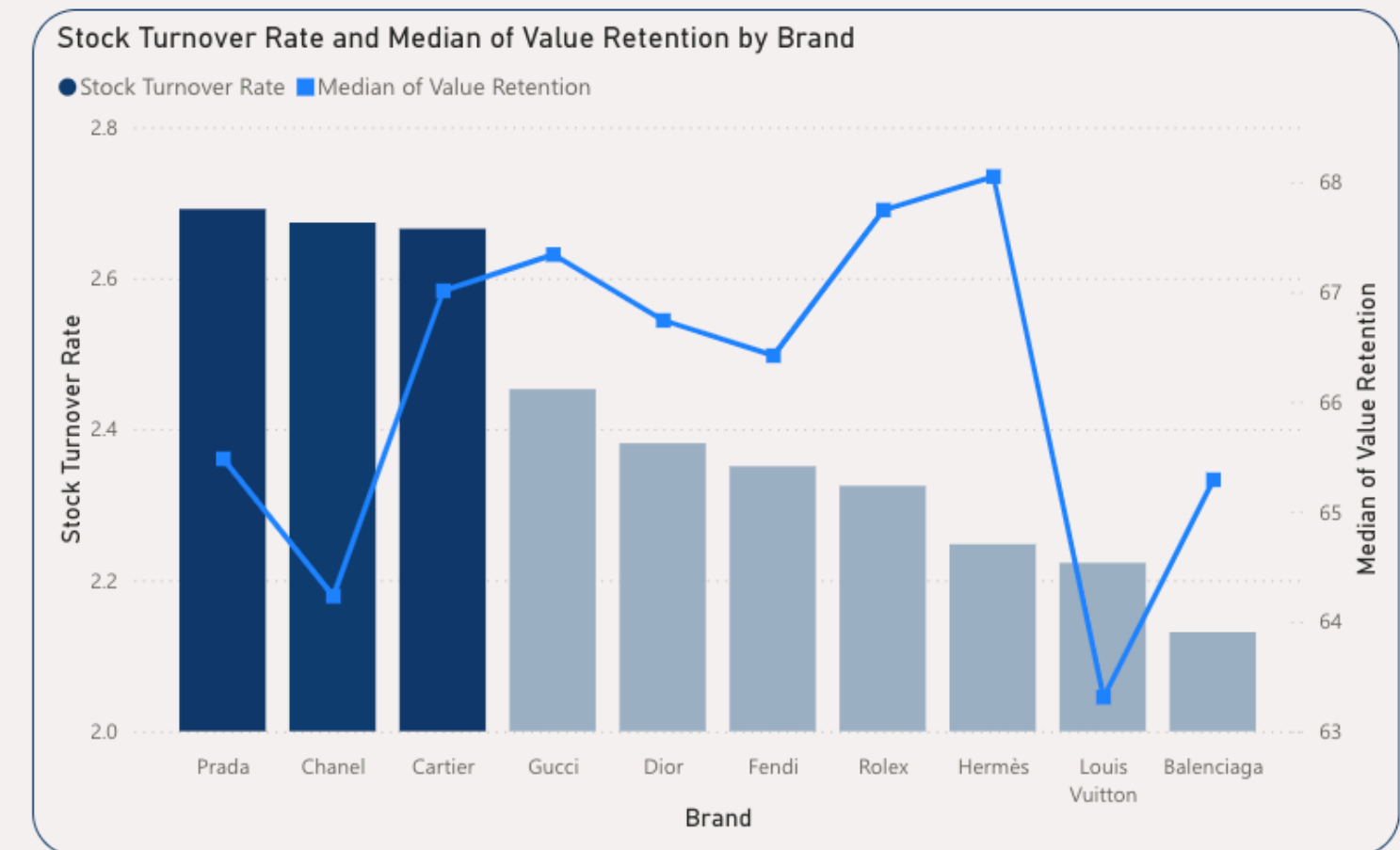
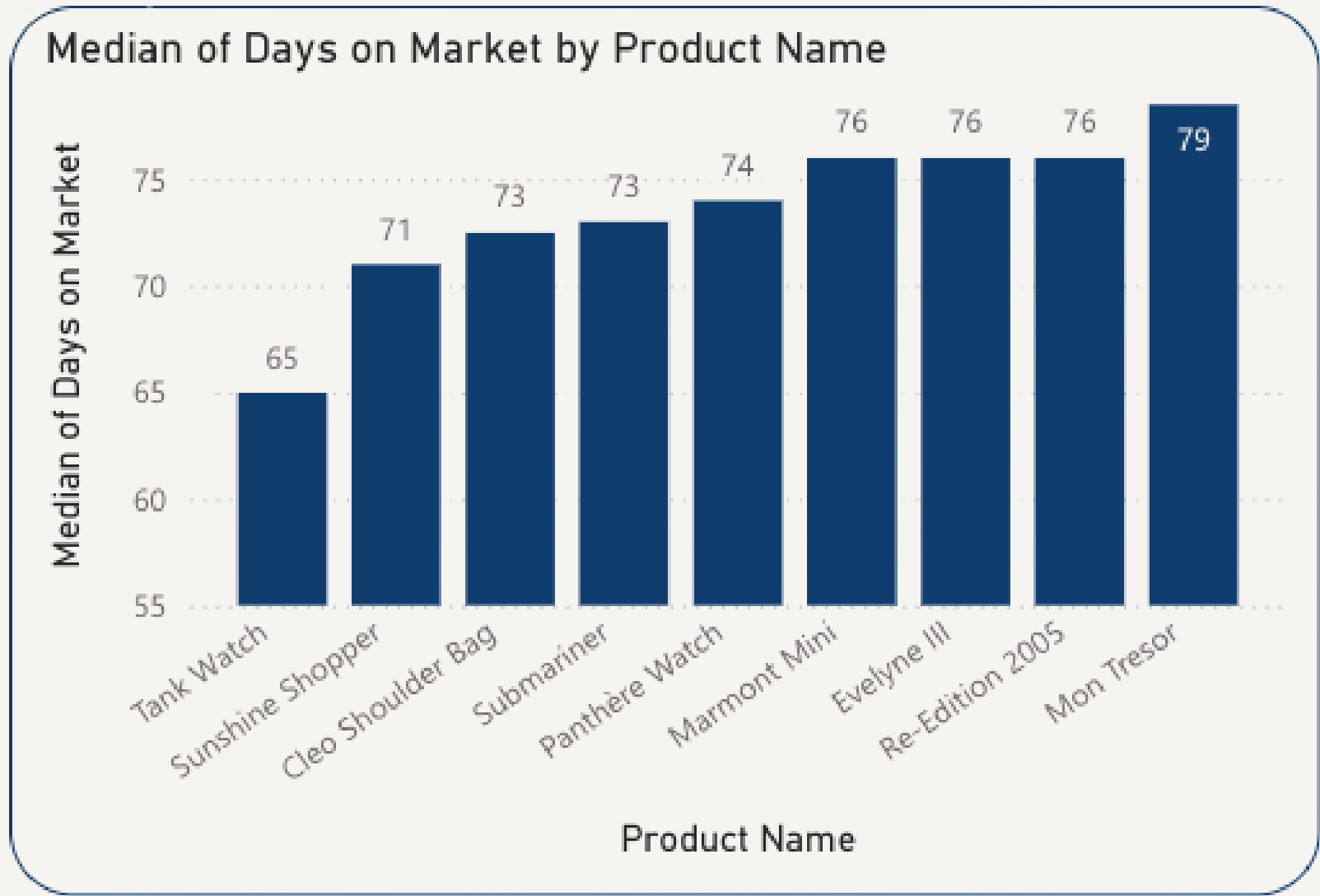


Figure 10. Stock turnover rate and value retention by Brands.

INVENTORY MANAGEMENT

WHICH ITEMS ARE MOST SOUGHT-AFTER?



- **Cartier Tank Watch** (65 Days on Market) → This item sells the fastest, indicating strong demand.
- Other fast-moving items include: Fendi Sunshine Shopper (71 Days), Prada Cleo Shoulder Bag (73 Days), Rolex Submariner (73 Days), Cartier Panthère Watch (74 Days)

WHAT DOES IT MEAN?

Fast-Selling = High Demand → Prioritize Sourcing. Since Cartier Tank Watch, Fendi Sunshine Shopper, and Prada Cleo Shoulder Bag sell quickly, TFG should stock these items more frequently to ensure consistent revenue flow.

Figure 11. Items with the lowest median Days on Market

OUR FINAL ANSWER TO THE TASKS?



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PRICING STRATEGY

- Refer to the 40-80% as a initial benchmark, combined with the pricing matrix and some other external factors to guide the pricing.



SOURCING STRATEGY

- Prioritise sourcing high-retention brands/items (Rolex Daytona, Hermès Kelly 28, Cartier Tank Watch).
- Reduce investment in high-depreciation brands unless they have rapid turnover.
- Monitor trendy items vs. classic investment pieces to optimize sourcing decisions.



INVENTORY MANAGEMENT

- Restock fast-selling items quickly (Cleo Shoulder Bag, Tank Watch) to prevent lost sales.
- Improve stock rotation for slow-moving items to avoid dead inventory.
- Offer promotions on aging inventory to free up capital for new acquisitions.