



VS



Adidas vs Nike: Competitive Brand Analysis

Data Analytics Group Project

How we cleaned the dataset



Handling Duplicate Values

- Checked for duplicate values using **unique product ids column**: duplicate product IDs removed = 89



Handling missing values

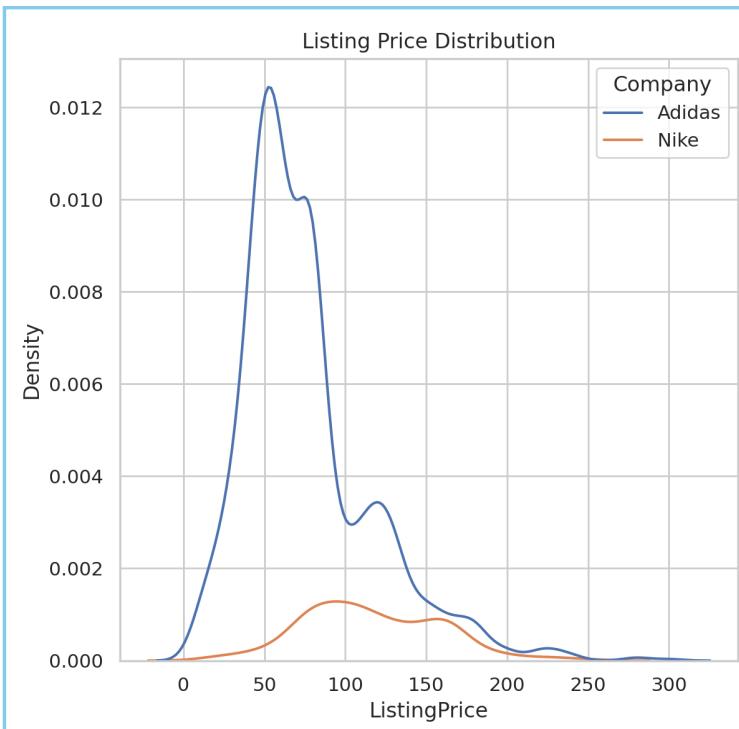
- Filled 3 missing Description values with '**No description**'
- Filled 6 missing values in '**Rating**' using brand mean
- Filled 6 missing values in '**Reviews**' using brand mean



Data Transformation

- One row had "**Adidas Adidas ORIGINALS**": we believe it to be a mistype, changed the name to "**Adidas ORIGINALS**"
- Decided to group every adidas **sub brands into macro group** ADIDAS to compare it with Nike
- **426 Nike product rows** had 0 as their listing price: substituted in each of those rows the that value with the sale price value (**since discount = 0**)
- Divided prices column by 100

Nike spreads its products across premium price tiers, while Adidas targets the mid-price market.



ANALYTICAL FINDINGS

- ❖ Adidas:
 - Has a very tall and narrow peak around 50-80.
 - This means most Adidas products cluster tightly in this mid-price range.
 - After 100, the curve drops sharply, meaning few Adidas products are expensive.
- ❖ Nike:
 - Shows a wider, flatter and lower curve.
 - Prices spread from 80-150+, with no extreme concentration at one point.
 - Nike has longer tight tail, meaning more high-priced products.

CONCLUSION

→ Nike's wide, flat price distribution shows that it offers shoes across many price tiers, including more high-end options, while Adidas concentrates more in the mid-price range.

Does Price Influence Significantly Customer Ratings For Both Brands ?



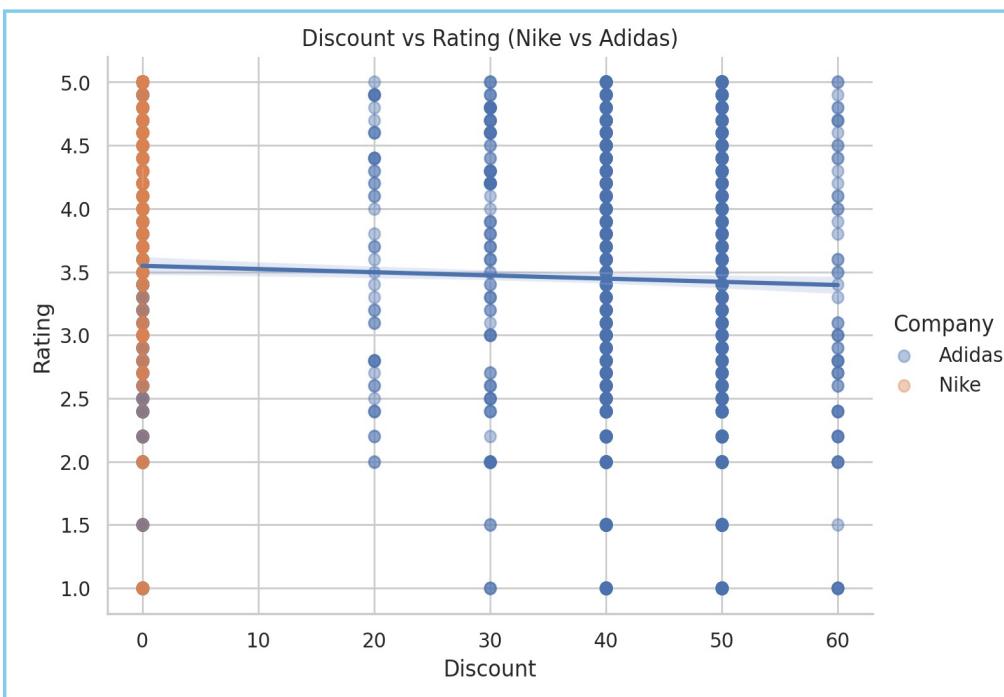
KEY POINTS

- For both brands, customer ratings remain concentrated **between 3.5 and 5**, regardless of whether the shoes are priced low/high.
- *Nike* shows a slight upward slope: more expensive shoes tend to receive marginally higher ratings, but the effect is extremely small.
- *Adidas* shows no relationship between price and rating: whether a product costs 30 or 200, the rating distribution barely changes

CONCLUSION

→ Price has almost **no influence** on customer ratings for either brand, suggesting that perceived quality appears independent of price.

Do Discount Rates Improve Customer Ratings for Adidas ?



KEY POINTS

- Adidas applies a wide range of discounts, with many shoes discounted between 20% and 60%, while Nike do not offer discounts.
- Despite Adidas' heavy discounting, customer ratings remain flat across all discount levels, showing no improvement as discounts increase
- The trendline is almost horizontal, meaning customers do not rate discounted shoes better, even when the markdown is large

CONCLUSION

→ Discounts do not lead to higher ratings.
Customers do not reward markdown with better reviews

Correlation between Price, Discount, Ratings & Reviews

— Nike's Correlation Matrix —



— Adidas Correlation Matrix —

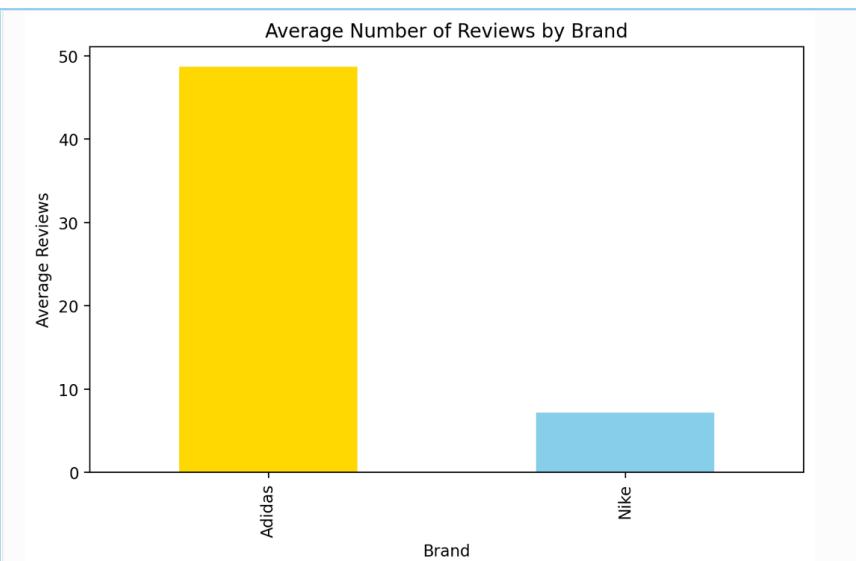


Metrics Tested	Statistical Results
Price & Rating	No correlation found
Discount & Rating	No correlation found

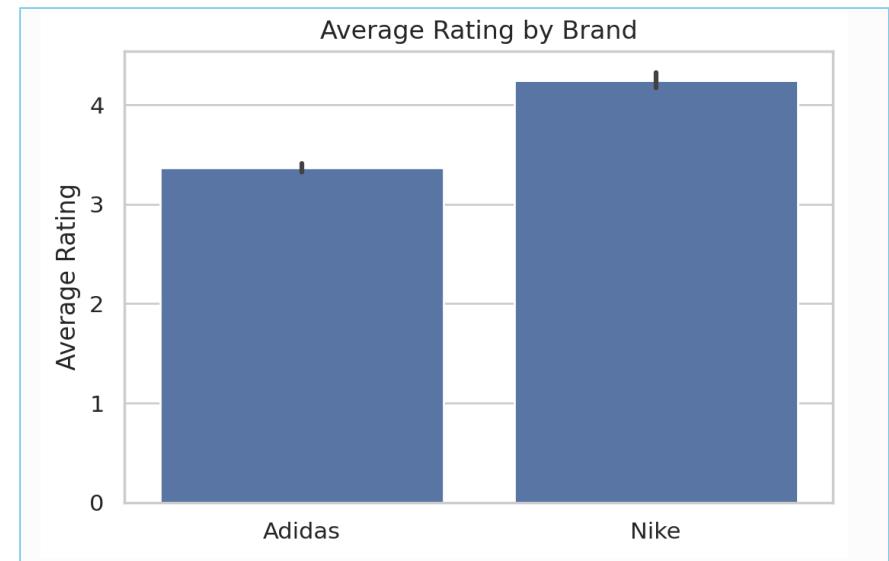


The data confirms that price and discounts have almost **no statistical relationship** with shoes ratings for both Adidas and Nike

Adidas Drives Far More Engagement, Nike Wins on Satisfaction.

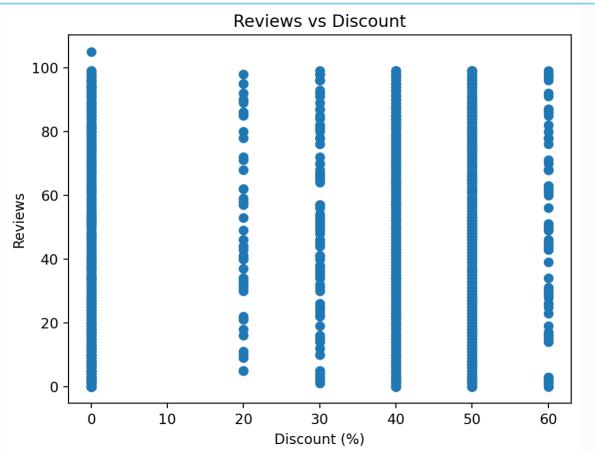


- Adidas: 49.2 reviews
 - Nike: 10.6 reviews
- Adidas products get 5x more engagement

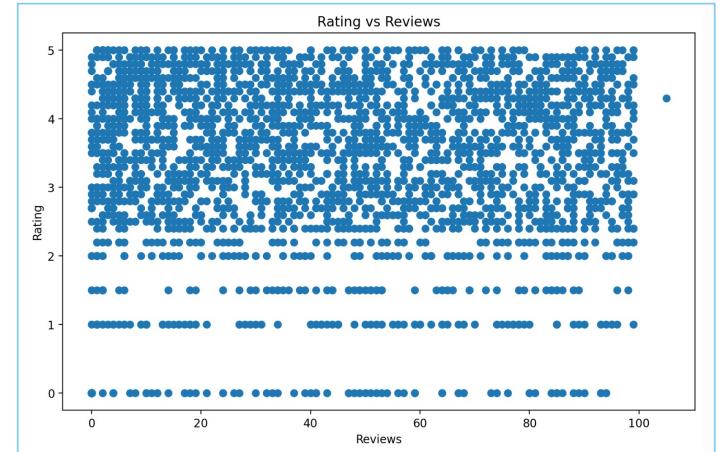


- Adidas: 3.37
 - Nike: 4.25 (dropped all the reviews=0 value)
- Nike products are rated significantly higher on average

Performance Drivers: How Discounts and Engagement Shape Ratings.



Discount	Total Reviews
0%	35,933
20%	2,419
30%	4,980
40%	37,031
50%	48,683
60%	2,822



Why This Matters

- 30%, 40%, 50%, and 60% discounts attract the highest engagement
- Discount has the strongest correlation with reviews in the dataset (0.318)

- Products with more reviews tend to have slightly higher ratings, but relationship is weak (0.139)
- Popularity does not guarantee high satisfaction

Understanding What Influences Product Performance.

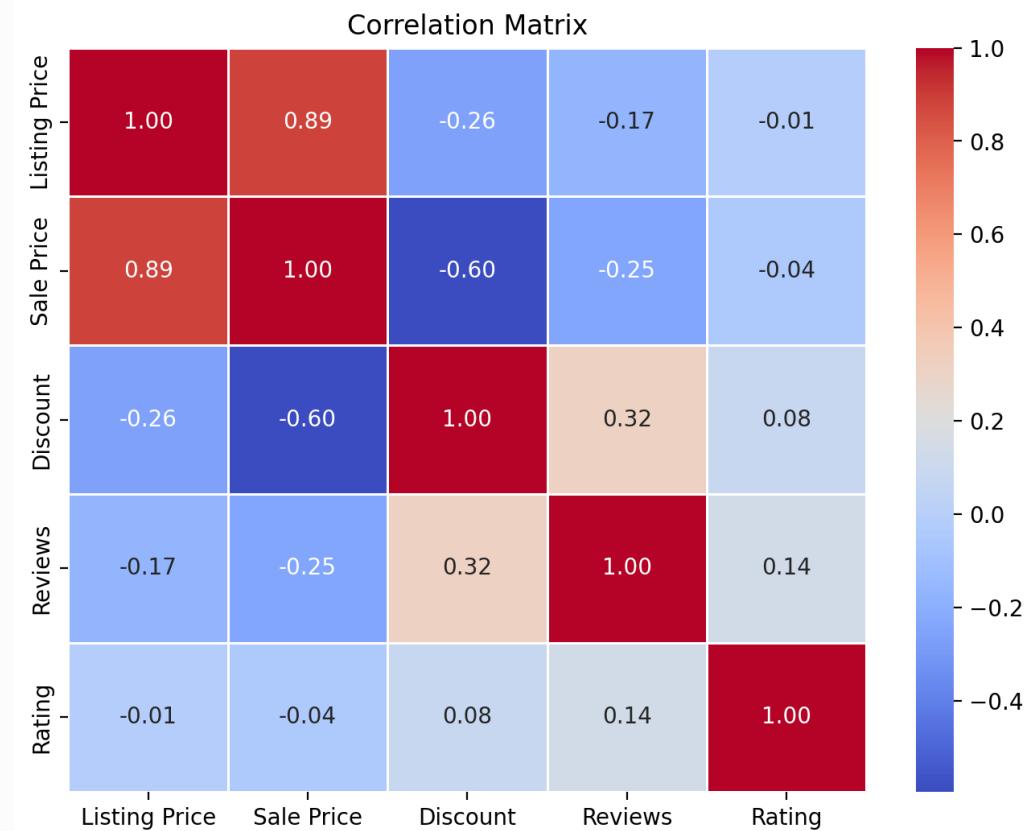
Key findings

- Discounts drive engagement main factor increasing review volume
- Ratings are stable and mostly independent of discounts or price
- High-engagement products tend to be slightly better rated, but the link is minimal

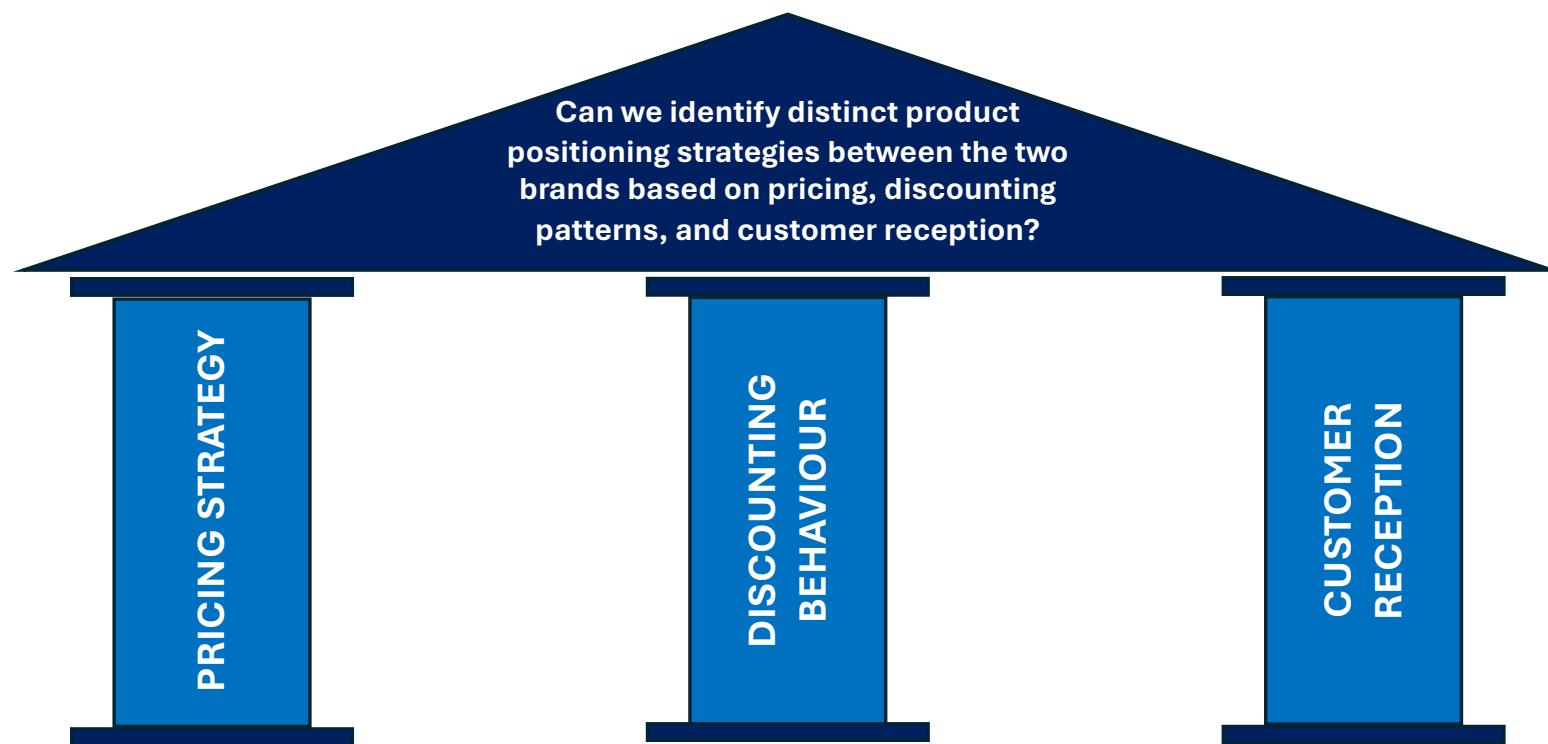
Conclusion

Adidas achieves higher engagement due to **more discounted and lower-priced products**

Nike achieves higher satisfaction due to **consistently higher-rated products**, regardless of discount

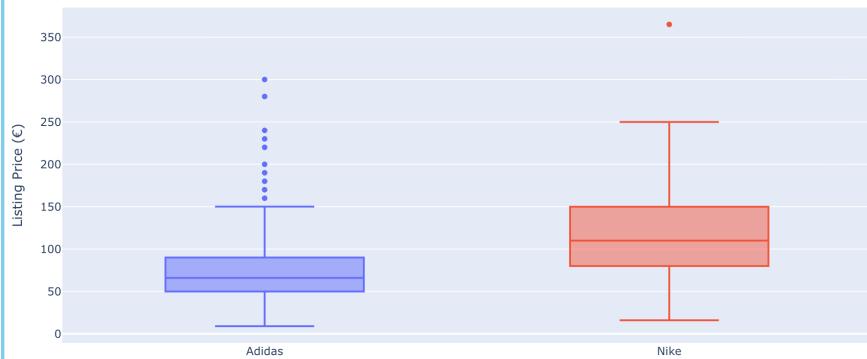


We identified two fundamentally different-positioning strategies between Nike and adidas through pricing structures, discounting behaviour, and customer reception.



Nike positions itself as a premium, price-rigid brand, whilst Adidas competes through a more accessible, lower-priced product strategy.

Original Price Distribution (in €) — Nike vs Adidas



KEY STATS

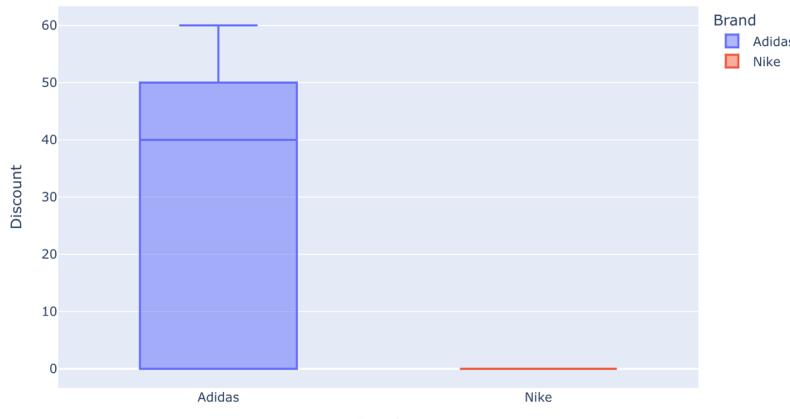
- **Nike's price distribution is consistently higher**, with a much higher median (**€113**) and upper range.
 - Nike average prices are **~48%** higher than Adidas.
 - Nike's extreme outliers **~€300+** reinforce its **premium segmentation**.
- **Adidas clusters in lower-mid price tiers (€76 avg.)**, offering a wider base of affordable products.
 - Adidas supplies accessible price points supporting mass-market reach.

Why This Matters

Nike leverages **brand equity and willingness to pay** to defend premium price integrity.
Adidas competes on **affordability**, enabling broader adoption and higher volume potential.

Adidas competes through aggressive discounting across all price tiers, whereas Nike protects premium value through strict zero-discount pricing.

Discount Levels — Nike vs Adidas



This is the clearest evidence that the brands intentionally position themselves differently, not just in pricing level, but in pricing behaviour.

KEY INSIGHTS

- **Adidas discounts frequently and aggressively**, with a median discount near **40%** and a wide range from **20% to 60%**
 - Adidas displays a **broad variation** in discounting intensity, whilst Nike shows **zero variation**, a sign of strict policy.
- **Nike's discount rate is a flat 0%**, showing no promotional activity at all.

IMPLICATIONS

- **Adidas → Value-focused, promotion-driven strategy**
 - Discounts expand access, increase volume, and support mass-market penetration
 - Promotions do not harm perceived value (*evidenced later*)
- **Nike → Premium, price-rigid strategy**
 - Refusal to discount protects brand equity, exclusivity, and perceived product quality.
 - Positions Nike for a narrower but higher-expectation customer segment.

Adidas achieves more consistent and higher customer ratings, whilst Nike demonstrate polarised satisfaction, reflecting riskier premium expectations.



ADIDAS	NIKE
Median rating (3.37)	Higher median rating (3.8)
Ratings tightly clustered in the 3-5 range	Ratings spread across 0-5, showing volatility
Few extreme low scores	Many 0-1 ratings lower averages
Consistent satisfaction across price tiers	Satisfaction heavily dependent on product & price tier
Perceived as reliable value at lower prices	Higher expectations due to premium prices increase ratings risk



Value-driven, consistent satisfaction

- Lower prices & frequent promotions create **strong perceived value**.
- Consistency in ratings suggests **alignment between expectations and experience**.
- Reinforces Adidas' **mass-market, reliable positioning**

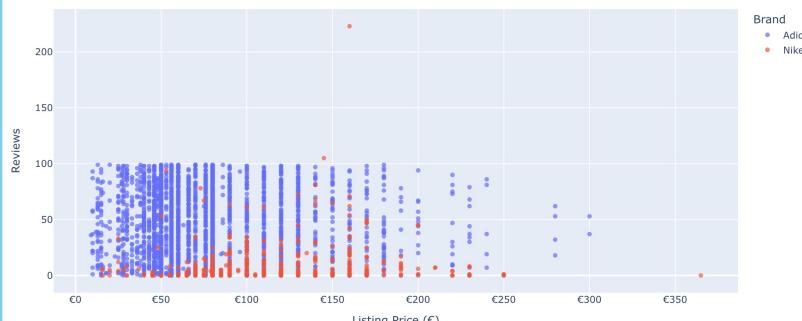


Premium brand with expectation sensitivity

- Premium prices raise expectations; if unmet, ratings fall sharply.
- Greater ratings spread indicates **higher risk in perceived value**.
- Reflects Nike's **narrower, more demanding customer base**.

Adidas generates significantly higher customer engagement across price tiers, whereas Nike's engagement remains low and concentrated, indicating a more selective customer base.

Price vs Customer Engagement (Reviews) — Price in €



INSIGHT	ADIDAS	NIKE
Engagement levels	Very high engagement; many items have 20-100+ reviews	Mostly 0-20 reviews ; rarely above 40
Engagement distribution	Strong clusters at low-mid prices	Sparse distribution; low engagement across prices
Average reviews	48.67	7.18

ADIDAS

Mass-market, high-engagement

Why This Matters

- Discounts & accessible price generate **higher purchasing volume**
- More buyers → more reviews → strong visibility
- Indicates **broad reach and high consumer touchpoints**

NIKE

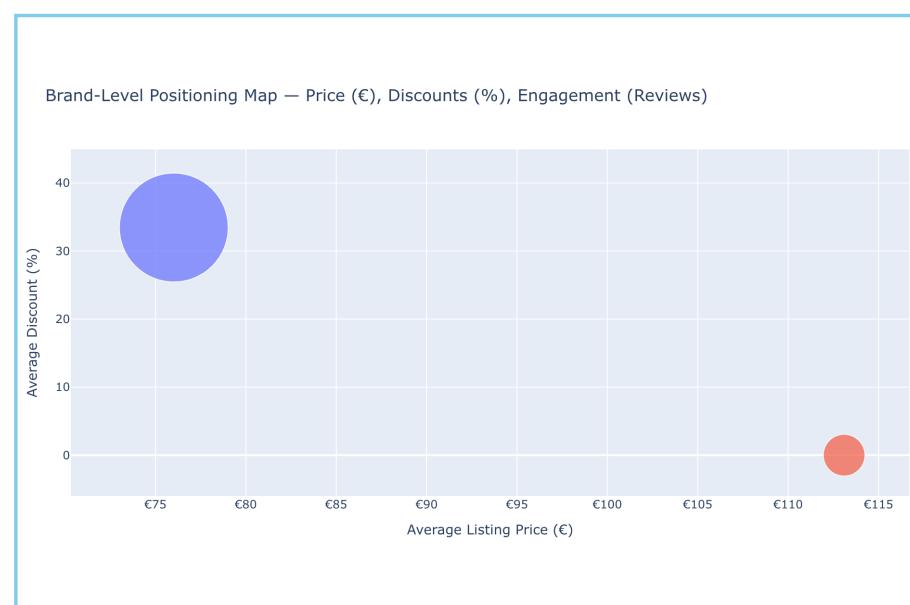
Premium, selective customer base

- Low review counts reflect **lower purchase volumes**
- Engagement concentrated in higher-price, premium-tier items
- Indicates **niche, brand-loyal, and more demanding segments**

Nike and Adidas occupy two separated strategic spaces when price, discounting, and customer perception are combined, confirming distinct product-positioning strategies.

ADIDAS

- Occupies **wide horizontal bands** at 20%, 30%, 40%, 50%, 60% discounts
- Prices span **€10-€250**, covering lower and mid tiers
- Ratings consistently **3-5**, strong stability
- Spread across discount & price → **value-driven, promotion-based strategy**



NIKE

- Occupies a **vertical plane at 0% discount** → never discounts
- Prices span **€80-€350**, leaning premium
- Ratings are volatile, reflecting premium pricing
- Narrow in the discount dimension → **strict price integrity**

- ❖ Lower/mid prices
- ❖ Heavy, multi-tier discounting
- ❖ Stable customer ratings
- ❖ Reflects a **mass-market, value-driven model**

NIKE AND ADIDAS POSITION THEMSELVES IN ENTIRELY DIFFERENT COMPETITIVE SPACES

- ❖ High prices
- ❖ No discounts
- ❖ Mixed customer ratings
- ❖ Reflects a **brand-equity, exclusivity-driven model**



esade

QUESTIONS

Do Good. Do Better.