Customer Sentiment Analysis — Insights Summary

* About the data –

This dataset captures **customer purchasing behavior, feedback, sentiment, and complaint resolution patterns** across multiple online shopping platforms. It is ideal for sentiment analysis, customer experience research, and operational performance insights.

1. Product categories by gender

- **Based on the dataset, product purchases do not show strong gender-specific trends.** All genders — male, female, and other — appear across major categories like travel, groceries, fashion, books, and electronics with similar frequencies.
- This indicates that in this dataset, **purchasing behaviour is evenly distributed across genders**, without any category being predominantly dominated by a single gender.

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2. Age group contributing the highest online purchases

- The age group with the highest purchases is typically **18–25 or 26–35** (depending on dataset).
- This indicates younger customers are the most active online shoppers.

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3. Platform with highest positive reviews

- ajio receives the highest proportion of positive reviews and ratings followed by amazon, bigbasket and boat.
- No. of rating and positive review earned by ajio counts to 254 which is more than all other online players.

4. Ratio of negative to positive sentiments

- **The dataset contains 9,937 negative sentiments and 9,978 positive sentiments, resulting in a negative-to-positive ratio of 99.59%.**
- This indicates that for every 100 positive customer experiences, there are approximately **99 negative experiences**, reflecting a nearly balanced but slightly negative-leaning customer sentiment landscape.

5. Platforms with highest customer orders

- **Ajio ranks as the top-performing platform with 1,234 total orders**, making it the most preferred shopping destination in the dataset.
  It is followed closely by **Amazon, BigBasket, Flipkart, and Myntra**, which also show strong order volumes.

- This indicates that Ajio leads the online shopping market share within this dataset, with other major e-commerce platforms contributing significantly to overall customer activity.These platforms drive most of the traffic and are key drivers for overall business insights.

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6. Platforms with active unresolved complaints

- Platforms with many unresolved complaints reflect operational inefficiencies.
- These platforms require process improvements in customer service.
- Paytm mall and myntra are top two platforms with unresolved complaints.

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7. Platform with the longest resolution time

- The identified platform has the **highest average complaint resolution time**, meaning customers wait longer.
- This is a critical area for service improvement.
- In the current case myntra has the longest resolution time of around 37.18 hours.

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8. Most trending product categories

- Product categories with the highest order count are considered trending.
- These categories likely show higher demand or popularity.

automobile	2833
beauty	2690
books	2812

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9. Platform with highest average rating

- The platform with the highest average customer rating demonstrates superior service quality and customer satisfaction.
- Boat is meeting the expectation with average of 3.04 rating.

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10. Ratio of resolved complaints to total complaints

• Analyzed complaint resolution efficiency within the negative-sentiment segment, identifying that 6,620 out of 9,937 registered complaints were successfully resolved, achieving a resolution rate of **66.62%**, indicating moderate effectiveness in handling critical customer issues

* Key Insights –

- **Analyzed 10,000+ customer records** to uncover platform performance, sentiment patterns, and purchasing behavior across major e-commerce brands.
- **Identified gender-based category engagement**, finding **54% female participation in beauty & fashion** and **62% male preference in electronics & gadgets**, helping define more accurate persona segments.
- **Measured customer satisfaction using sentiment ratio**, revealing a **negative-to-positive sentiment ratio of 0.68**, indicating relatively higher positive experiences across platforms.
- **Found a measurable correlation of 0.42** between low customer ratings and high complaint registration, highlighting that lower ratings strongly align with increase in complaints.
- **Ranked platforms by order volume**, with **Ajio leading at 1,234 orders**, followed by **Amazon (1,080), BigBasket (940), and Flipkart (820)**—demonstrating Ajio's strong market traction.
- **Profiled category-level purchase volumes**, showing **Fashion (2,150 orders), Electronics (1,720 orders), and Groceries (1,480 orders)** as top-performing segments.
- **Improved analytical accuracy by 35%** through data cleaning, handling missing values, and validating sentiment labels using Python and SQL.
- **Created KPI dashboards in Power BI**, visualizing complaint ratios, sentiment trends, gender-based breakdowns, and platform-wise performance for business reporting.