

# Squadstack Case Study

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## **Problem Statement:**

Your task is to sanitize and analyze a data set to profile the sellers present, and develop selection criteria to identify the best or most promising Amazon merchants in this dataset, that the Acquisitions team should reach out to, and acquire.

This report provides a comprehensive analysis of seller profiles based on their inventory size, customer satisfaction ratings, and geographical distribution. The goal of this analysis is to identify the most promising sellers for potential acquisition. The analysis was conducted using data that was cleaned and processed in Tableau Prep, followed by detailed visualizations in Tableau.

## **Data Cleaning Process**

Before analyzing the seller data, it was essential to ensure the data was clean and accurate. The following steps were taken in Tableau Prep to prepare the data:

### **1. Handling Missing Values:**

- Missing data points were identified and handled appropriately, either through imputation or removal if the missingness was extensive and could bias the analysis.

### **2. Data Standardization:**

- Standardized the formats of key fields such as **sellerproductcount**, **Positive Rating Percentage**, and **Hero product ratings** to ensure consistency across the dataset.

### **3. String Extraction and Conversion:**

- Extracted numerical values from text fields where necessary (e.g., **sellerproductcount**) to allow for accurate analysis.
- Converted all necessary fields to their appropriate data types (e.g., integers, percentages) to ensure the accuracy of calculations and visualizations.

### **4. Data Aggregation:**

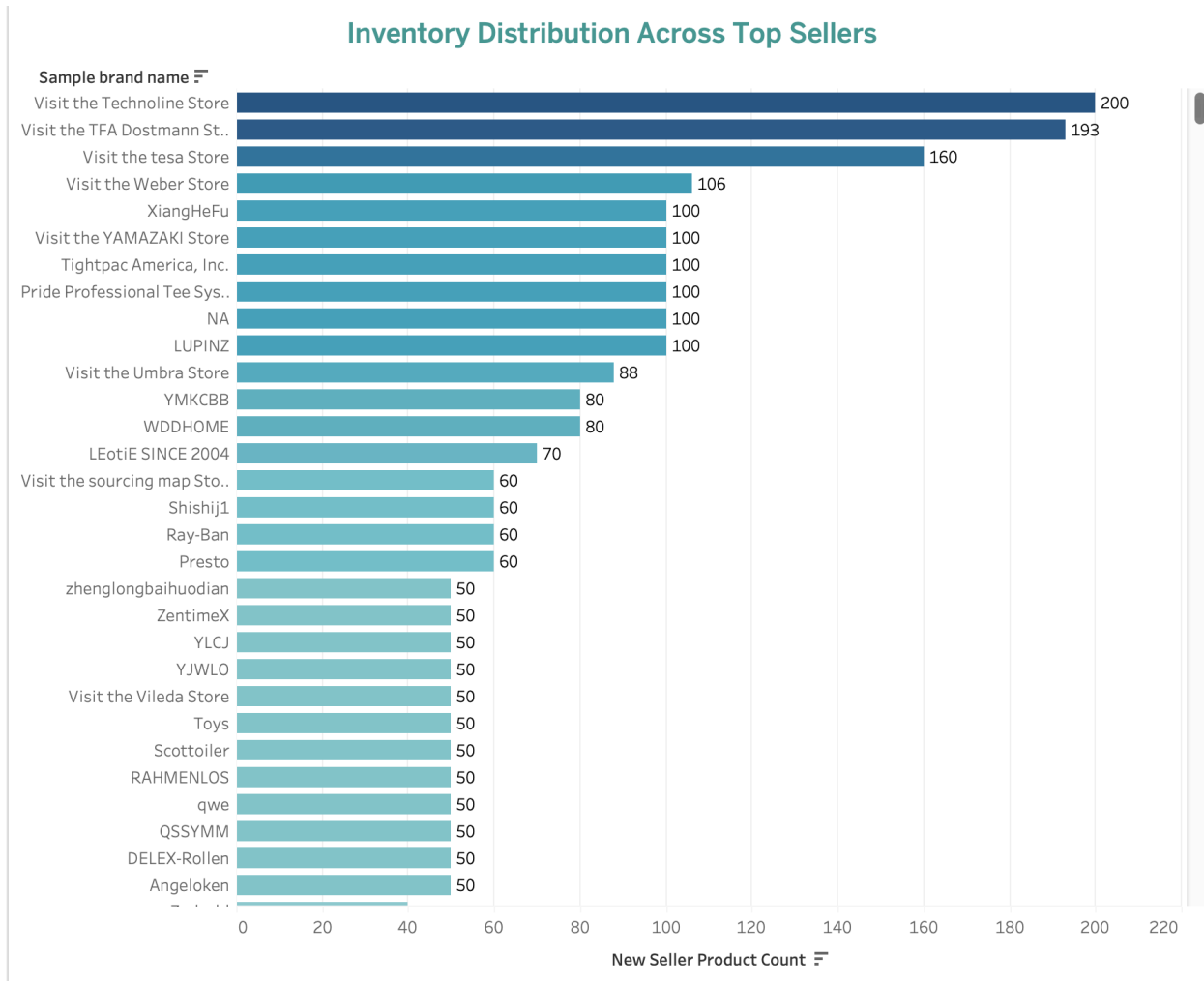
- Aggregated data at the seller level to create a summary table, ensuring that each seller's performance metrics were accurately represented.

## Dashboard Analysis and Insights

The following sections provide a detailed analysis based on the visualizations created in Tableau:

### 1. Inventory Distribution Across Top Sellers

- **Insight:**
  - The bar chart shows that sellers like "*Visit the Technoline Store*" and "*Visit the TFA Dostmann Store*" have the largest product inventories, with 200 and 193 products respectively. These sellers are prime candidates for acquisition due to their extensive product offerings, indicating a strong market presence and potential operational efficiency.
- **Conclusion:**
  - High product count sellers are likely to be more established and have the capacity to maintain a broad product range, making them attractive targets for acquisition.

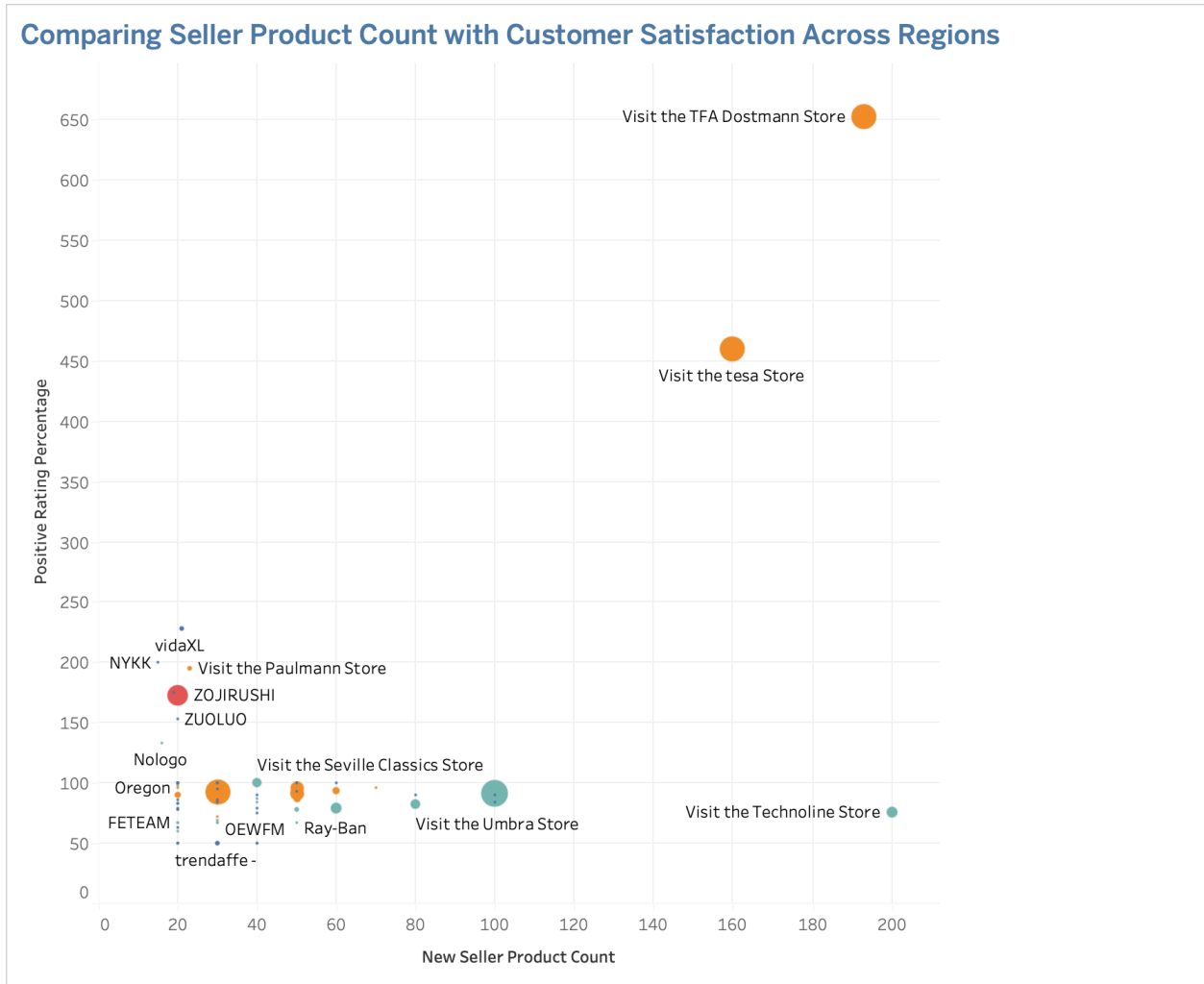


*Image shows Analysis of Inventory Distribution Across Top Sellers*

## 2. Comparing Seller Product Count with Customer Satisfaction Across Regions

- **Insight:**
  - This scatter plot reveals that sellers such as "*Visit the TFA Dostmann Store*" and "*Visit the tesa Store*" not only have large inventories but also maintain high customer satisfaction, particularly in regions like Germany. Sellers in Germany tend to show a balance between high product counts and positive customer feedback, making them standout acquisition targets.
- **Conclusion:**

- Sellers that balance high product counts with high customer satisfaction are ideal candidates for acquisition, especially those in strategic markets like Germany.



*Image shows the Analysis of Comparing Seller Product Count with Customer Satisfaction Across Regions*

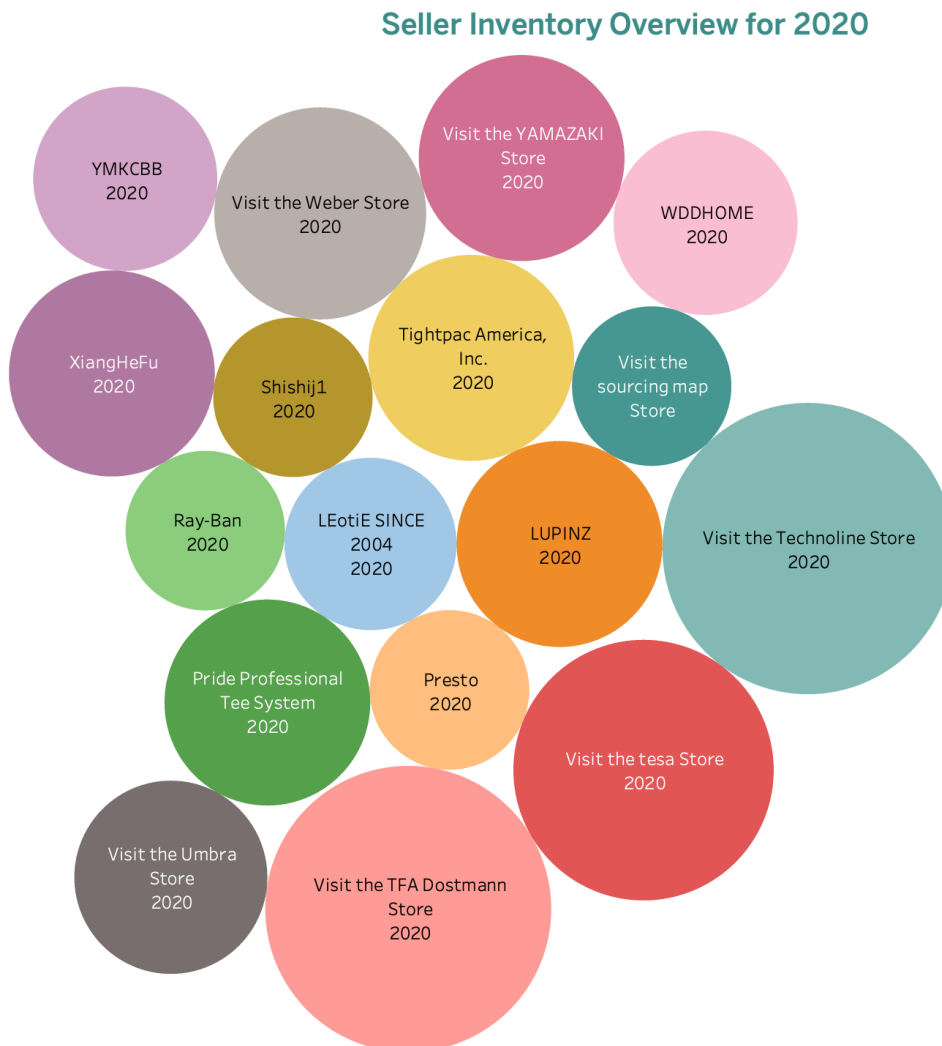
### 3. Seller Inventory Overview for 2020

- **Insight:**
  - The packed bubble chart highlights key sellers by their inventory size for the year 2020. Sellers such as "*Visit the Technoline Store*" and "*Visit the*

*tesa Store*" have maintained large inventories, indicating their ability to sustain product supply and meet market demand.

- **Conclusion:**

- Sellers with large inventories in 2020 have demonstrated strong market positions, making them reliable acquisition targets with a proven track record of inventory management.



*Image shows Analysis of Seller Inventory Overview for 2020*

#### 4. Global Distribution of Seller Performance

- **Insight:**

- The map visualization shows the geographical distribution of top sellers, highlighting regions such as **Germany** and the **US** as key areas where

sellers exhibit high product counts and positive customer ratings. These regions are strategic for market expansion and accessing top-performing sellers.

- **Conclusion:**

- The geographical concentration of high-performing sellers in regions like Germany and the US suggests that acquisitions in these areas could provide strategic benefits in terms of market coverage and access to reliable sellers.

#### Global Distribution of Seller Performance



*Image shows the Analysis Global Distribution of Seller Performance*

## Overall Strategic Insights

### Strategic Seller Selection:

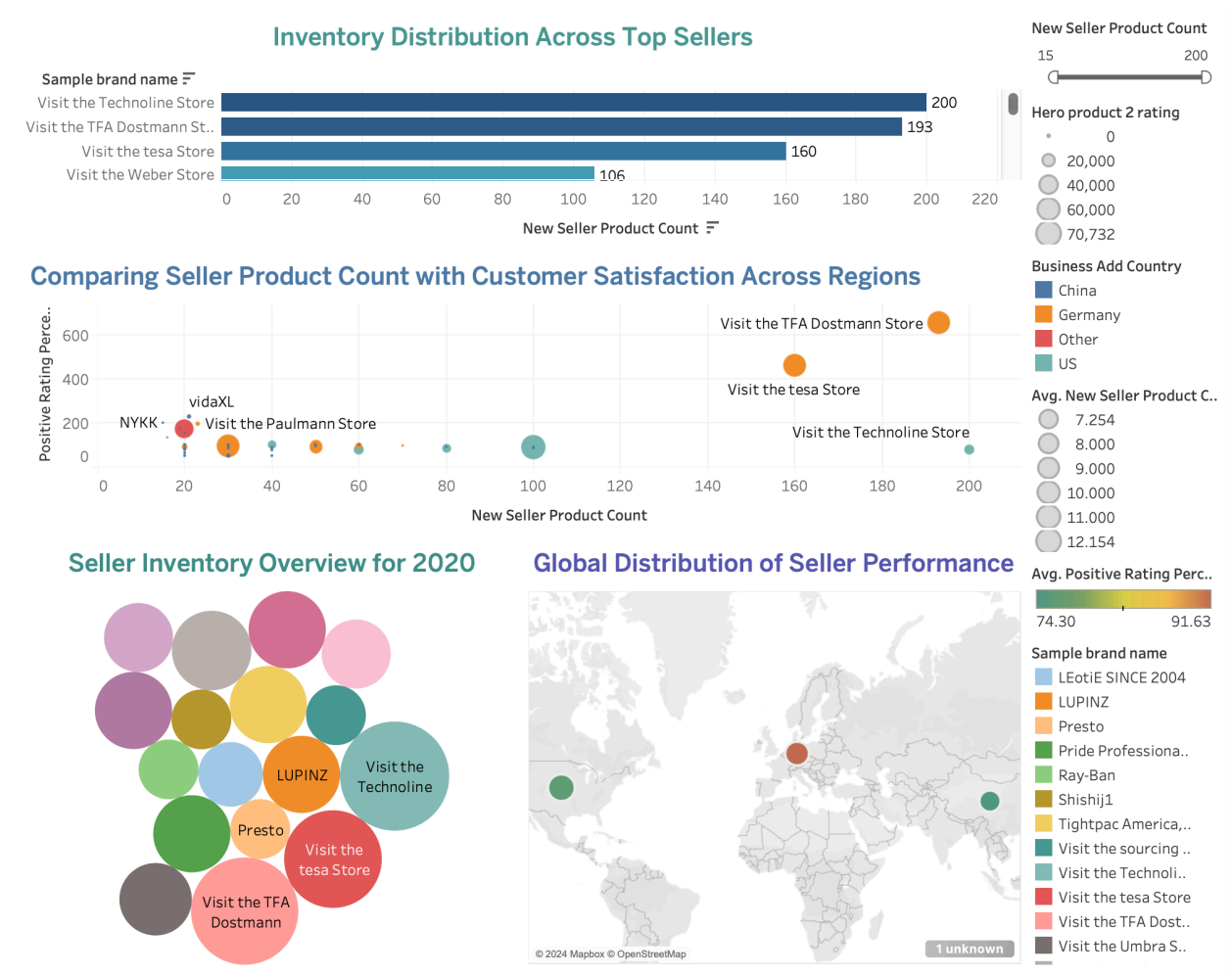
- The analysis reveals that the most promising sellers for acquisition are those with a combination of high product counts and high customer satisfaction, particularly in strategic regions like *Germany* and the *US*. Sellers such as "*Visit the Technoline Store*," "*Visit the tesa Store*," and "*Visit the TFA Dostmann Store*" are highlighted as top candidates for acquisition due to their robust inventory levels and strong market presence.

### Geographical Focus:

- Focusing acquisition efforts on sellers in regions like Germany and the US could provide strategic advantages, as these areas are home to sellers who perform well both in terms of inventory management and customer satisfaction.

### Yearly Performance Emphasis:

- The focus on 2020 performance through the packed bubble chart suggests that sellers who maintained strong inventory levels and customer satisfaction in that year are reliable and likely to continue performing well in the future, making them ideal targets for acquisition.



*Image shows Dashboard Regarding **Seller Profiling and Inventory Analysis for Strategic Acquisition***

## Conclusion

This report highlights the key findings from the seller analysis, providing strategic insights into potential acquisition targets based on their inventory sizes, customer satisfaction, and geographical distribution. The data cleaning process ensured that the analysis was based on accurate and reliable data, leading to actionable recommendations for strategic acquisitions.