Business Analyst Report: Weekly Price Updates for Luxury Brands

Abdou Aziz Thiam

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Abstract

This report summarizes the analysis and validation of weekly price updates for various luxury products on behalf of **Luxurynsight**. Using data extracts from last week (**W-1**) and this week (**W**), anomalies were identified, price changes were analyzed, and actionable insights were developed for client delivery.

1 Introduction

The price data is updated weekly in a four-step process involving multiple teams. As the Business Analyst for **Luxurynsight**, this report addresses the following:

1. Build a dashboard to visualize price changes.

2. Identify and explain anomalies in the data.

3. Recommend next steps for delivery.

2 Dashboard: Price Changes Between Weeks

A comparative analysis was conducted to identify price changes between **W-1** and **W**. The dashboard includes:

- **Price Change Summary:** Total products with price increases, decreases, and no change.

- **Top Movers:** Products with the highest percentage price changes.

- **Country-Level Insights:** Regional price trends.

- **Brand-Level Insights:** Brands with the most significant average price changes.

Key Insights:

- X% of products had price increases, while Y% saw decreases.

- Significant price changes were observed for products from Brand A and Brand B.

- Country C showed the highest overall price increase compared to last week.

3 Anomalies and Explanations

During the analysis, several anomalies were identified in the data. One of the most significant issues is the presence of missing values in both datasets. These missing values could arise for various reasons, but a likely explanation is that certain products were not in stock or unavailable in specific countries during the data collection period. This type of anomaly is common in the luxury goods market, where product availability can vary based on regional demand, supply chain factors, or exclusive distribution agreements.

Additionally, some SKUs were present in the **W-1** dataset but missing in **W**, and vice versa. To ensure consistency, these SKUs were removed from the analysis. This step was necessary to align the datasets and facilitate accurate comparisons. Furthermore, all `NaN` (missing) values were replaced with `0`, ensuring that the datasets could be processed effectively without introducing bias.

No duplicate rows were found in the datasets, indicating a clean data import process. There were also no negative values, suggesting no major errors in price input. However, price inconsistencies were observed in some cases, which may be attributable to promotions, regional pricing strategies, or potential data entry errors. These findings underline the importance of thorough validation and collaboration between teams to ensure data accuracy before client delivery.

In summary, addressing these anomalies ensures the integrity of the analysis and provides a robust foundation for delivering actionable insights to clients.

4   Implementation

To conduct the analysis, a straightforward approach was implemented using **Python**. The following steps were carried out:

- Data was imported and processed using the `pandas` library for data manipulation and cleaning.

- Missing values were identified and replaced with `0`, ensuring the datasets were suitable for analysis.

- SKUs present in one dataset but not the other were removed to align both datasets for accurate comparisons.

- Price changes and anomalies were computed, and relevant insights were extracted for visualization.

- Data visualizations, including bar charts and line plots, were created using the `matplotlib` library to illustrate key findings.

This implementation ensured an efficient and accurate analysis of the datasets, leveraging Python's robust data analysis capabilities. The use of straightforward methods minimized complexity and provided clear, actionable insights. This approach can be readily adapted for similar analyses in the future. foundation for delivering actionable insights to clients.

5   Regional Sales Insights: High and Low Performing Markets

The analysis highlights a disparity in sales performance across regions:

High Sales in Asia

Products are more frequently sold in Asian countries, which can be attributed to:

- **Proximity to Manufacturing Hubs:** Many luxury brands manufacture their products in Asia, ensuring quicker distribution and availability.

- **High Regional Demand:** Growing middle-class populations and high disposable incomes drive significant demand for luxury goods in countries such as China, Japan, and South Korea.

- **Strategic Focus:** Luxury brands often allocate larger inventories or exclusive products to Asia, recognizing it as a critical growth market.

Lower Sales in Western Countries

In contrast, countries like the United Kingdom, France, and the United States show lower sales figures. This trend may result from:

- **Market Saturation:** These markets may already be saturated with luxury products, leading to slower growth or declining sales.

- **Shift in Consumer Behavior:** Consumers in Western countries may prioritize experiences or sustainable purchases over material goods, impacting luxury sales.

- **Taxation and Pricing:** Higher taxes and prices in these regions, compared to duty-free markets, could discourage local purchases.

These insights underline the importance of tailoring strategies for different markets, focusing on the unique drivers of demand in each region. n.

Top 5 Countries by Sales This Week

The following table highlights the top 5 countries by total sales this week, along with their respective sales figures from last week for comparison. The data underscores the dominance of Korea and Korea DF in sales, while Japan, Thailand, and Taiwan follow in the rankings.

Top 5 Countries by Sales Last Week

The analysis reveals the countries with the highest sales last week, emphasizing the dominance of Asian markets in luxury product purchases:

- **Korea:** Total sales of **1.16 billion**, maintaining its position as the leading market for luxury goods.

- **Korea DF:** Duty-free sales contributed significantly, with **431.47 million** in sales.

- **Japan:** Sales reached **112.81 million**, reflecting strong consumer demand.

- **Thailand:** Achieved sales of **25.17 million**, highlighting its growing luxury market.

- **Taiwan:** Reported sales of **21.11 million**, showing robust performance in the region.

These countries collectively underscore Asia's pivotal role in driving the luxury market, with Korea and Korea DF leading by a significant margin.

Top 5 Countries by Lowest Sales Last Week

In contrast, the following countries reported the lowest sales last week, primarily in Western and Oceanian regions:

- **United Kingdom:** Recorded the lowest sales with **671,450**, showing limited demand.

- **France:** Total sales reached **748,575**, reflecting a slower growth rate.

- **USA TF:** Duty-free sales amounted to **921,785**, lagging behind other regions.

- **Singapore:** Reported **1.18 million** in sales, indicating potential for further growth.

- **Australia:** Sales totaled **1.21 million**, highlighting the challenges in this market.

These findings indicate that luxury sales in Western countries and Oceania remain relatively low compared to the thriving Asian markets, likely influenced by factors such as market saturation, high taxation, and shifting consumer priorities.

Observations

- **Korea:** Maintains the highest sales figures, with a slight increase compared to last week.

- **Korea DF:** No change in sales, indicating stable duty-free transactions.

- **Japan:** A minor increase in sales, reflecting steady market activity.

- **Thailand and Taiwan:** Both regions show a decrease in sales this week, which may result from seasonal factors or reduced demand.

6 Brand Sales Insights: Jacquemus

The analysis identifies **Jacquemus** as the least sold brand across the datasets. This trend may be attributed to several factors:

- **Relative Lack of Recognition:** Unlike globally renowned luxury brands such as **Chanel** and **Bottega Veneta**, Jacquemus may not yet have achieved the same level of brand awareness and loyalty among consumers.

- **Emerging Brand Status:** As a relatively newer entrant in the luxury market, Jacquemus is still establishing its presence and expanding its customer base. This could explain the lower sales figures compared to more established competitors.

- **Niche Appeal:** Jacquemus is known for its minimalist and contemporary designs, which might cater to a smaller, more specific audience rather than a broad global consumer base.

While Jacquemus may currently show lower sales, its unique identity and growing popularity in fashion-forward circles suggest potential for significant growth in the future, particularly with strategic marketing and broader distribution.

7 Sales Analysis of Top 5 Brands

Top 5 Brands Last Week

The top-performing brands last week, based on total sales, were:

- **Gucci:** With sales of **391.67 million**, Gucci dominated the market, solidifying its position as the leading luxury brand.

- **Bottega Veneta:** Ranked second with **249.94 million** in sales, reflecting strong consumer interest in its iconic designs.

- **Chanel:** Achieved **242.47 million** in sales, maintaining its reputation as a high-demand luxury brand.

- **Saint Laurent:** Recorded **193.45 million** in sales, showcasing its continued appeal to consumers.

- **Dior:** Closed the top five with sales of **172.81 million**, reinforcing its status as a major player in the luxury market.

Top 5 Brands This Week

The sales rankings for this week remained largely consistent, with slight variations:

- **Gucci:** Maintained its top position with **391.67 million** in sales, showing no change from last week.

- **Bottega Veneta:** Retained second place with sales of **249.94 million**, reflecting steady consumer demand.

- **Chanel:** Experienced a slight decline in sales, dropping to **232.29 million**, but remained third overall.

- **Saint Laurent:** Marginally decreased its sales to **193.37 million**, holding its fourth position.

- **Dior:** Sales remained unchanged at **172.81 million**, consistently ranking fifth.

Key Insights

- **Consistency in Leadership:** Gucci continues to lead the luxury market with unchanged sales week-over-week, emphasizing its strong brand equity and consumer demand.

- **Stability for Bottega Veneta:** Bottega Veneta also maintained its sales levels, showcasing its resilience and popularity.

- **Chanel's Decline:** A decrease of approximately **10.18 million** in Chanel's sales suggests potential shifts in consumer preferences or regional factors affecting demand.

- **Minimal Changes for Saint Laurent and Dior:** Both brands showed stable performance, with only minor variations in sales figures.

- **Steady Market Dynamics:** The luxury market demonstrates significant stability, with the top 5 brands maintaining their rankings despite small fluctuations.

Recommendations

- **Investigate Chanel's Sales Decline:** Analyze potential reasons for Chanel's week-over-week drop, such as regional performance, pricing changes, or inventory issues.

- **Leverage Gucci and Bottega Veneta's Momentum:** Continue supporting marketing and sales strategies that drive the consistent success of these brands.

- **Monitor Emerging Trends:** Keep an eye on shifts in consumer preferences to anticipate future changes in rankings or sales performance.

8 Hainan DF Price Discrepancy Analysis

The Hainan DF region exhibited significant volatility in product pricing between last week (**W-1**) and this week (**W**). Below is a detailed analysis:

Summary of Price Discrepancies

- **Increased Prices:** 24 products showed price increases compared to last week.

- **Decreased Prices:** 24 products showed price decreases compared to last week.

- **No Change:** Only 1 product remained unchanged in price.

- **Missing Values:**

  - Last Week (**W-1**): 193 missing values.
  - This Week (**W**): 194 missing values.

Top Price Increases

The following products exhibited the highest price increases:

- Increase of **17,250**.

- Increase of **15,500**.

- Increase of **12,950**.

- Increase of **10,700**.

- Increase of **9,450**.

Top Price Decreases

Conversely, the following products showed the largest price decreases:

- Decrease of **19,850**.

- Decrease of **15,600**.

- Decrease of **15,500**.

- Decrease of **13,150**.

- Decrease of **12,700**.

Insights

The analysis highlights notable pricing trends and potential issues:

- Hainan DF experienced significant pricing shifts, with substantial increases and decreases across various products.

- The persistent presence of missing values in both weeks indicates potential stock unavailability or synchronization errors during the data update process.

- Such volatility may be attributed to dynamic market conditions, promotional campaigns, or errors in data entry.

Potential Causes for Observed Issues in Duty-Free Pricing

The Hainan DF (Duty Free) pricing data exhibited several anomalies, including missing values, large price shifts, and price stability. Below is an explanation of potential causes:

1. Missing Values

- **Stock Unavailability:** Certain products may not have been available in the duty-free inventory during the data collection period.

- **Data Synchronization Errors:** Missing values could result from issues in transferring data from the source system to the draft platform.

- **Incomplete Listings:** Some products might not have been listed in the draft dataset due to delays or errors in the update process.

2. Large Price Shifts

- **Dynamic Duty-Free Pricing:** Prices in the duty-free market often fluctuate due to seasonality, international travel trends, or demand variations.

- **Promotional Campaigns:** Temporary offers or discounts might have led to sudden price decreases.

- **Regional Market Adjustments:** Changes in regional demand, supply, or currency exchange rates could contribute to significant price changes.

- **Data Preparation Errors:** Errors during the entry or calculation of duty-free prices might result in large shifts.

3. Stable Prices

- **Fixed Duty-Free Pricing:** Certain products might have fixed prices due to contractual agreements, stable demand, or consistent cost structures.

Recommendations for Duty-Free Analysis

- **Investigate Stock Levels:** Cross-check missing entries with inventory records to confirm if products were unavailable in the duty-free market.

- **Validate Price Changes:** Collaborate with the data generation team to verify if significant price shifts are intentional and align with market dynamics.

- **Monitor Promotions:** Work with the marketing team to identify if price changes are related to promotional campaigns.

- **Benchmark Regional Prices:** Compare Hainan DF pricing with other duty-free regions to detect deviations or inconsistencies in pricing strategy.

9 Recommendations and Next Steps

Based on the analysis of sales data and observed trends, the following recommendations and next steps are proposed to enhance data accuracy and optimize the business strategy:

1. Address Data Anomalies

- Investigate missing values, particularly in regions like Hainan DF, to determine whether they result from stock unavailability or synchronization errors during data updates.

- Validate significant price changes with the data generation team to ensure that they are intentional and reflect market conditions.

2. Deep Dive into Key Markets

- Focus on high-performing markets like Korea and Korea DF to identify the drivers behind their dominance and leverage these insights for other regions.

- Assess the potential reasons for lower sales in regions such as the United Kingdom, France, and USA TF, such as pricing strategies, consumer behavior, or tax implications.

3. Brand-Level Insights

- Investigate the decline in Chanel's sales week-over-week and assess whether the drop is due to pricing adjustments, regional factors, or inventory issues.

- Support emerging brands like Jacquemus by enhancing visibility through targeted marketing campaigns and exploring broader distribution strategies.

4. Enhance Market Monitoring

- Implement tools to track regional price trends and demand fluctuations in real time, especially in the duty-free sector.

- Benchmark performance across regions and brands to detect potential anomalies and ensure alignment with strategic goals.

5. Client Communication and Delivery

- Prepare a comprehensive report for the client summarizing key insights, trends, and identified anomalies.

- Highlight areas of growth, such as Korea and Korea DF, and provide actionable recommendations to improve performance in lower-performing markets.

- Ensure all anomalies are validated and resolved before finalizing the client delivery session.

These steps aim to improve data quality, enhance market understanding, and drive strategic decision-making, ensuring the successful delivery of insights to clients.

10   Conclusion

This report provides a comprehensive analysis of weekly price updates for luxury brands. By leveraging the dashboard and addressing anomalies, the data can be confidently pushed to the client session. Ongoing collaboration across teams will ensure a seamless delivery process.