ValueFrenzy - Data Analysis Project Report

1. Company Overview

ValueFrenzy is a well-established supermarket chain specializing in fast-moving consumer goods (FMCG), with operations spanning three key markets: the United States, Mexico, and Canada. Founded in 2006, ValueFrenzy has built a reputation for offering a diverse range of products, from everyday groceries and household essentials to electronics and furniture. The company's commitment to affordability, quality, and customer satisfaction has allowed it to grow into a trusted brand across North America.

With a network of 100+ stores strategically located in urban and suburban areas, ValueFrenzy serves millions of customers annually. Its product portfolio is categorized into low-tier (groceries and basic goods), medium-tier (household items and appliances), and high-tier (electronics and luxury furniture). In addition to offering national brands, the company has expanded its focus on developing private label brands, providing value-driven alternatives to premium products.

In recent years, ValueFrenzy has adopted a customer-first approach by enhancing its omnichannel shopping experience, integrating physical stores with a robust online platform that offers convenient home delivery options. As part of its ongoing efforts to maintain competitiveness in the evolving FMCG sector, the company is continuously looking for innovative strategies to boost operational efficiency and ensure sustainable growth.

2. Problem Statement

As ValueFrenzy embarked on a strategic review of its operations from 2021 to 2023, it became clear that the company was experiencing a significant decline in revenue and profitability. This downward trend was most pronounced in the USA market, where a sharp drop in Average Transaction Value (ATV) and demand for high-tier products like electronics and furniture raised concerns among senior management about the company’s ability to stay competitive in a challenging economic environment.

The project was initiated when Sarah Jamieson, the company's Chief Operating Officer (COO), reached out to me, a consultant data analyst specializing in FMCG performance analysis. Sarah expressed an urgency to address these performance issues and requested a comprehensive data analysis project focusing on key performance indicators (KPIs): Total Revenue, Gross Profit, Quantity Sold, Total Transactions, and Average Transaction Value (ATV), with a detailed analysis across all regions—USA, Mexico, and Canada—over the past three years.

The goal was to identify gaps, gain insights into customer purchasing behavior, and provide actionable recommendations to help ValueFrenzy improve its profit margins and overall business performance going forward.

3. Key Stakeholders

Sarah Jamieson (COO): The COO's leadership and strategic vision influenced key project decisions, particularly in aligning the dashboard with organizational priorities. Regular feedback was sought to ensure the analysis met the company's overarching goals.

David Lee (CFO): While less involved in day-to-day project tasks, David's role in overseeing financial metrics meant that financial KPIs such as Revenue and Gross Profit were given priority in the analysis. His insights on financial performance shaped the recommendations for improved pricing strategies.

Amanda Cole (Head of Sales and Marketing): Amanda's insights into product promotions were crucial for shaping the analysis of Average Transaction Value (ATV) and product tier performance. Her input helped prioritize the need for more in-depth regional sales analysis.

Michael Rogers (Regional Manager, USA): Michael's feedback guided the investigation into regional inefficiencies and helped highlight specific opportunities for the USA market's underperformance.

Isabella Martinez (Regional Manager, Mexico): Isabella's involvement was instrumental in understanding the challenges facing the Mexican market, especially in terms of lower ATV and product availability.

Ethan Carter (Regional Manager, Canada): Ethan's feedback highlighted the need for a deep dive into Canadian sales, where ATV trends and product performance were not as strong as expected.

Karen Blake (Head of Product Development and Strategy): Karen helped identify underperforming product categories, guiding the analysis around optimizing high-tier products and their impact on overall sales.

Nitin Kunigal (Data Analyst, Consultant) and Team: As the primary driver of the analysis, Nitin played a crucial role in shaping the project's methodology and ensuring the data was used to its full potential. His technical expertise in Excel and Power Query helped turn complex data into actionable insights, while his stakeholder engagement ensured the project stayed aligned with the business's needs.

4. How Stakeholder Influence Shaped the Project:

Sarah Jamieson (COO):

- Sarah's role as the COO meant that she provided strategic oversight for the entire project. Her interest in aligning the analysis with operational efficiency and sustainable growth guided the project towards identifying key areas where cost savings and operational improvements could be made, especially in the USA and Canada regions.
- Shaped Insights: Focused on gross profit and revenue distribution by region, driving the emphasis on operational KPIs like Quantity Sold and Gross Profit.
- Shaped Recommendations: Suggested further exploration of product-tier performance for aligning operational and financial strategies.

David Lee (CFO):

- As CFO, David's influence was critical when financial performance insights were provided, and he was particularly interested in KPIs like Total Revenue and Gross Profit margins. His feedback on financial projections influenced the analytical depth of revenue trends across regions.

- Shaped Insights: Highlighted revenue breakdown by region and the relationship between Average Transaction Value and Gross Profit.
- Shaped Recommendations: Emphasized the need for better tracking of revenue per transaction and inventory management strategies.

Amanda Cole (Head of Sales & Marketing):

- Amanda's role shaped the project's focus on sales and marketing trends. She was keen on understanding the impact of product sales across different tiers, particularly with respect to marketing strategies.
- Shaped Insights: Data from the Sales & Marketing departments, particularly in high-value product lines, shaped the analysis around Average Transaction Value (ATV) across regions.
- Shaped Recommendations: Recommended targeted marketing strategies for different regions to drive high-value product sales.

Michael Rogers, Isabella Martinez, and Ethan Carter (Regional Managers):

- Their regional insights were crucial for the project's regional performance breakdowns in the Average Transaction Value (ATV) and gross profit analysis. They provided feedback on key regional challenges and influenced the focus on local product trends and customer preferences.
- Shaped Insights: Guided the analysis of regional variations in transaction patterns and customer purchasing behavior.
- Shaped Recommendations: Recommended adjustments in pricing and inventory strategy specific to each region, especially for the USA and Mexico.

Karen Blake (Head of Product Development and Strategy):

- Karen's role was vital in providing insights into product strategy and development goals, particularly when it came to understanding how product tiers (low, medium, and high) influenced both sales and gross profit. She was particularly interested in product innovation and ensuring the product portfolio aligned with customer expectations.
- Shaped Insights: Guided the emphasis on product-tier analysis, which helped uncover performance gaps in the medium-tier household products and the low-tier grocery items.
- Shaped Recommendations: Based on her insights, it was recommended that low-tier grocery products receive more focus in terms of supplier negotiations and stock management to increase gross margins. Additionally, medium-tier household products needed a repositioning strategy to boost sales across all regions.

5. Key Performance Indicators

Total Revenue:

Total revenue generated by ValueFrenzy across all regions and product categories.

Gross Profit:

Profit after deducting COGS (Cost of Goods Sold) from total revenue.

Quantity Sold:

Total units sold across all regions.

Total Transactions:

Number of customer transactions.

Average Transaction Value (ATV):

Average amount spent per transaction.

6. Rationale Behind Selected KPIs

In our analysis of ValueFrenzy, we focused on five key performance indicators (KPIs) — Total Revenue, Gross Profit, Quantity Sold, Total Transactions, and Average Transaction Value (ATV). This selection was made based on several important considerations:

- Alignment with Analysis Objectives: The chosen KPIs directly align with the primary objectives of this analysis, emphasizing revenue generation, profitability, and customer purchasing behavior, all of which are crucial in the FMCG sector.
- Data Availability and Quality: The analysis relied on data that was readily available and of sufficient quality. Some potential KPIs may have lacked accurate data representation, which influenced our focus.
- Simplicity and Actionability: Concentrating on these five KPIs allowed for a clearer, more actionable analysis. Including too many metrics can complicate the interpretation and decision-making process without significantly enhancing insights.
- Economic Context: The analysis was conducted within a specific economic environment, where understanding revenue, profit, and transaction trends was more pertinent than broader metrics like market share or customer acquisition costs.
- Industry Best Practices: Our KPI selection is consistent with industry benchmarks that prioritize specific metrics over others in the FMCG landscape, ensuring that our analysis is grounded in recognized practices.
- Future Exploration: While our analysis focused on these KPIs, we acknowledge that other metrics could provide further insights in future assessments, allowing for a more comprehensive understanding of the business dynamics.

7. Insights, and Recommendations

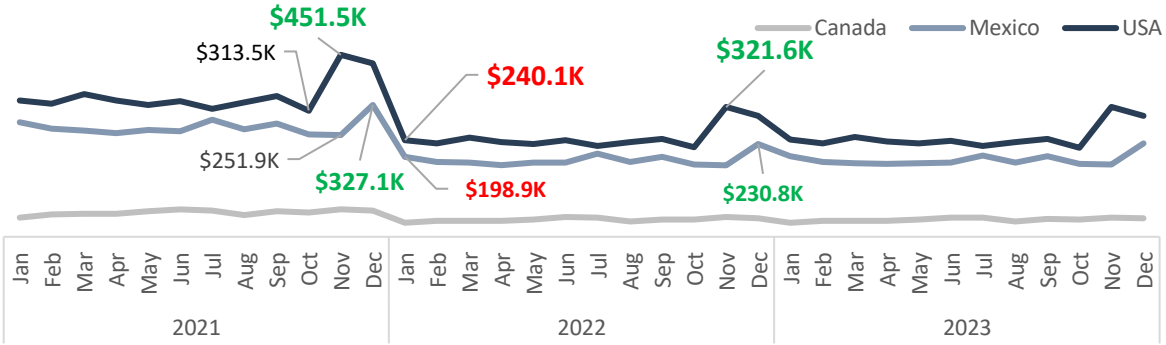
Insight 1:

Declining Revenue and Gross Profit:

Insight: Total revenue declined sharply from $13.8M in 2021 to $9.7M in 2022 and 2023, while gross profit dropped from $8.2M in 2021 to $5.8M for both 2022 and 2023.

Root Cause: The revenue and profit decline were mainly driven by reduced high-tier product sales (electronics and furniture) in the USA and Mexico. This drop in customer spending was likely influenced by economic pressures, such as inflation and shifting consumer priorities. A simultaneous drop in ATV aggravated the issue, particularly after Q4 2021.

Significant **DECREASE** in **PROFITS** (especially, in the **USA**) from **Nov-2021** to **Jan-2022** due to a significant **DROP** in the overall **Average Transaction Value (ATV)**



Recommendation 1:

Address Declining Revenue and Gross Profit:

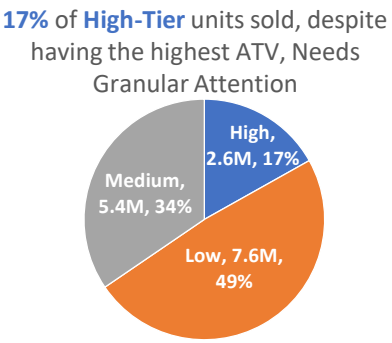
- Revitalize High-Tier Product Sales in the USA: Given the sharp decline in revenue and gross profit in the USA, it is crucial to revive high-tier product sales (particularly electronics and furniture) that have been most impacted. Introducing targeted promotions during peak shopping periods (e.g., holiday sales) and offering flexible payment plans (such as 0% interest financing or extended installment plans) can encourage customers to make higher-value purchases.
- Strengthen Customer Engagement: In-store and online customer engagement strategies can be enhanced by offering personalized shopping experiences. Use customer data to provide tailored product recommendations based on purchase history, which will help drive high-value sales.

Insight 2:

Stable Quantity Sold but Declining Profit Margins:

Insight: Although Quantity Sold remained steady, with 15.7M units sold over the period, profit margins declined, especially in the USA. Sales of low-margin items made up 49% of total sales, while high-tier products, which have higher profit margins, saw reduced demand (17%).

Root Cause: The stable overall sales volume masked a product mix shift, with high-tier product sales declining due to economic constraints. Customers prioritized essential items like groceries and household products while delaying large purchases, particularly in electronics. The decline in high-tier purchases in the USA was particularly damaging to profitability.



Recommendation 2:

Optimize Product Mix and Encourage High-Tier Sales:

- Focus on Growth in Medium- and High-Tier Products: Medium- and high-tier products show significant potential for growth, especially in Mexico and Canada. ValueFrenzy should focus marketing efforts on these product segments by highlighting the benefits of premium products (e.g., quality, durability) while positioning them as aspirational yet affordable.
- Introduce Bundled Offers and Cross-Selling: Cross-selling and bundling of complementary products will help increase overall spending. For example, offering appliance bundles in Mexico or electronic accessories with high-tier electronics in Canada can boost the overall ATV while increasing product sales volume.

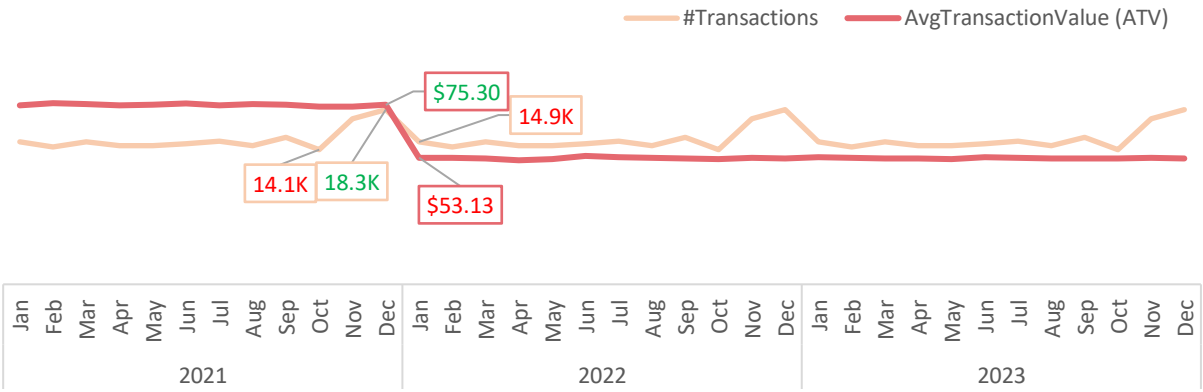
Insight 3:

Disparity Between Transactions and ATV Trends (Oct–Dec):

Insight: While transaction volume increased in late 2021 (especially during the holiday season), the ATV remained flat. More transactions were processed without corresponding increases in the amount spent per transaction.

Root Cause: A shift towards lower-priced goods (groceries and household essentials) drove this disparity. Promotions on lower-tier products and a reduction in high-tier purchases during this period contributed to stagnant ATV, especially from Oct-Dec across all the years.

Sharp **ATV DROP** from **$75.30** to **$53.13** between **Dec-2021** to **Jan-2022**. **ATV** remained consistent across regions and product tiers due to **STABLE PURCHASING PATTERNS**. Despite a **TRANSACTION INCREASE** in late 2021, **ATV** remained steady, driven by **FREQUENT** low-tier purchases



Recommendation 3:

Boost Average Transaction Value (ATV):

- Enhance Loyalty Programs: Establish a loyalty program that rewards frequent shoppers with exclusive discounts or points that can be redeemed for medium- and high-tier products. This will incentivize larger purchases and increase ATV, especially among repeat customers.
- Upselling and Cross-Selling Strategies: To drive up the ATV, employ strategies such as upselling during the checkout process. Encourage customers to add premium items or complementary products to their cart (e.g., suggesting batteries with electronics or cleaning supplies with household goods).

Insight 4:

Regional Performance Disparities:

Insight: The USA accounted for 51% of total revenue and gross profit, but it also saw the steepest declines. Mexico performed relatively better but also experienced a slight drop in high-tier sales, while Canada showed the most stable performance overall.

Root Cause: Economic instability in the USA, paired with shifting consumer habits, had the most significant impact on ValueFrenzy's revenue. In Mexico, lower spending on non-essential items contributed to a slight drop, while Canada's smaller market was less affected by these broader economic trends.

Recommendation 4:

Improve Regional Performance with Tailored Strategies:

- Develop Targeted Marketing for Regional Needs: Each region (USA, Mexico, and Canada) has unique market dynamics and consumer behavior. ValueFrenzy should develop region-specific marketing campaigns that address local preferences and economic conditions. In the USA, promote electronics and furniture with financing options; in Mexico, emphasize medium-tier household products; and in Canada, encourage high-tier purchases with limited-time offers.
- Conduct Local Market Research: Invest in ongoing market research to better understand evolving consumer behavior in each region. Insights from such research can help adjust product offerings, promotions, and pricing strategies that align with regional trends and customer preferences.

Insight 5:

Impact of Macroeconomic Conditions on Purchasing Patterns:

Insight: Average Transaction Value (ATV) dropped across all regions but was especially pronounced in the USA. A drop from over $75 in 2021 to approx. $53 in 2022-2023 across all regions indicated a broader shift in purchasing behavior toward lower-priced, essential goods.

Root Cause: Macroeconomic factors such as inflation, rising operational costs, and changing consumer preferences toward value-for-money products led to fewer purchases of high-ticket items like electronics thereby reducing overall transaction values. Customers in all regions adjusted their shopping habits due to these external pressures.

Recommendation 5:

Adapt to Macroeconomic Conditions:

- Leverage Private Label Brands: In response to rising inflation and changing consumer preferences, ValueFrenzy should continue to promote its private label brands as affordable alternatives to national brands. This will help retain price-sensitive customers while maintaining profitability.
- Improve Operational Efficiency: To mitigate the impact of external economic factors (e.g., supply chain disruptions, inflation), invest in optimizing supply chain operations and cost-saving measures. This will allow ValueFrenzy to maintain competitive pricing while ensuring profitability in a challenging market environment.

The insights and root causes show how KPIs are interlinked and affected by economic factors, product tier performance, and regional disparities. The primary focus should be on recovering revenue and profit margins by improving sales in high-margin categories while maintaining steady performance in core product areas like groceries and household goods.

By implementing these data-backed strategies, ValueFrenzy is well-positioned to overcome its current challenges and achieve sustainable growth across all markets.

8. Conclusion

The data analysis project for ValueFrenzy provided a comprehensive understanding of the company's sales performance from 2021 to 2023, highlighting critical areas for improvement across its key markets—USA, Mexico, and Canada. Through the evaluation of five KPIs—Total Revenue, Gross Profit, Quantity Sold, Total Transactions, and Average Transaction Value (ATV)—we identified several key challenges, such as declining revenue and gross profit, regional discrepancies in sales, and shifts in customer purchasing behavior.

These insights offer a clear direction for ValueFrenzy to address current performance gaps, improve customer engagement, and adapt to evolving market conditions. By leveraging data-driven strategies and operational improvements, the company is well-positioned to enhance its competitiveness in the FMCG sector and create a sustainable path for future growth. The outcomes of this analysis will serve as a foundation for informed decision-making, allowing ValueFrenzy to navigate challenges and seize new opportunities in the market.