A TECHNICAL REPORT ON THE ANALYIS OF APEX GEAR PERFORMANCE IN THE YEAR 2021

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1. OUTLINE

1. Introduction

2. Story of Data

3. Data Splitting and Preprocessing

4. Pre-Analysis

5. In-Analysis

6. Post-Analysis and Insights

7. Data Visualizations & Charts

8. Recommendations and Observations

9. Conclusion

10. References & Appendices

2. INTRODUCTION

Objective of the Project: For this project I am analyzing the data to get insight about how the company fared in the year in review. I want to understand the sales trend of their products, which of their product sold more throughout the year and what period of the year it sold most. Which region purchased most from them and at what rate.

Problem Being Addressed: Some of the problems this analysis aims to solve are: To help the company not to understock on their most sold products, and to gain advantage over their competitors when it comes to marketing their products.

Key Datasets and Methodologies: The dataset used was a Sales data and some of the methods I used was to make sure my data is clean and consistent, before converting it to a standard excel table, then I used pivot tables and pivot charts to get insights on the particular metrics I want to see.

3. STORY OF THE DATA

Purpose: The dataset is a sales data, which shows how the company fared in year in review, the first thing I did was to clean the dataset, then I created my Pre-Analysis Board where I noted down important details that would help me better understand the dataset I am working with, then I started creating my Pivot Tables and Charts, as I was creating the charts I created another excel sheet which I called the In-Analysis Board, where I noted down important observations and insights from each of the chart. After that I started bringing in my charts to form a Dashboard, while creating the dashboard, I made sure I followed all the rules that guides an effective dashboard. After creating the dashboard, I then wrote down my final observations and recommendations that I can give to the stakeholders.

Data Source: The dataset is a public dataset and it was gotten from Kaggle.

Data Collection Process: From the introduction on the Kaggle page, the dataset is a fictional dataset as it was created by the author for research purposes.

Data Structure: The dataset was structured in a tabular format with columns representing datapoints like, Sales Method, Cities, Region, Product Category, Total sales Etc. And Rows representing the different Retailers.

Important Features and Their Significance: Some of the important datapoints in the dataset include the Region which tells us the region each retailer is located, the state which tells us the state where is region is, we also have the products, which tells us the product each retailer bought, the total sales which is the product of the price per unit column and the Units sold column. We also have the Sales Method column which tells us what type of method was used to purchase goods from the company.

Data Limitations or Biases: Some of the issues I encountered in the dataset were inconsistent values, some of the columns were joined together and the date column was not formatted properly.

4. DATA SPLITTING AND PREPROCESSING

Data Cleaning: The first thing I noticed in the dataset was the columns that were joined together, so I used the text-columns function to separate each of the datapoint to a new column. I then reformatted my date column so it can appear as a date

Handling Missing Values: For this dataset there was no missing values

Data Transformations: I standardized my dataset by changing it to a Standard Excel Table

Data Splitting: I separated the different datapoints to dependent and independent values by checking which datapoints depends on another datapoint before you can understand it. Like price per unit, unit sold, total sales etc. which all depended on datapoints like Retailer, city, state, product etc.

Industry Context: The industry type of the data is an Athletic and Sports Store.

Stakeholders: The key stakeholders of this project are the CEO's, The Marketing Department. The Production Department and other Investors.

Value to the Industry: The significance of this analysis to the industry is to help them know where and where to commit more resources as they would want to avoid wastage of resources, they would want to also know how they can take out perform their competitors by using the observations from their analysis to drive more sales and at the end increase their revenue.

5. PRE-ANALYSIS

Identify Key Trends: While looking at the dataset I saw a lot of West Gear in the retailer columns, which might mean that they were one of the top retailers and I also that lots of product were bought in New York City, which might mean they one of the top cities.

Potential Correlations: Some of the noticeable relationship gotten from my dependent and independent values were, Retailer against Total Sales, Region against Total Sales, Sales Method against Total Sales, Product against Operating Profit.

Initial Insights: Some of the key insights I saw that felt promising for analysis include: Which products was the best performing products, which region had the most sales, What sales method was most frequently used etc.

6. IN-ANALYSIS

Unconfirmed Insights: While creating my charts some of the insights I got from them include:

- West Gear was the best retailer of the year as they made a total sale of $24,204,740
- Charleston City tops the chart based on the total numbers of sales made
- The western Region was the best performing region of the year with a total sales worth $26,902,628
- The company had peak sales in the month of July while they had low sales in the month of march
- Men's street footwear was the best performing product of the year and had a total sale of $20,882,669 Women Athletic Footwear was the least sold product with $10,659,235.

- Men's street footwear generated more sales for the company while Women's athletic footwears was the product that generated the least revenue.
- The state with the most sales was New York City

Recommendations: Some of the recommendations I could give from these insights I got were:

- West Gear performed best, so their sales strategy can also be applied to Walmart to increase their number of sales or they can be dropped from the company retailers.
- The company can set up a Sub-Hq in Charleston to ensure they serve their customers well and to make more people buy from them.
- The company can make more adverts in the Western Region as that was the best forming region to gain stronghold their and wade of competitors.
- The company should replicate measures implemented in the month of July for other months with low sales.
- The company look into making ads advocating for more women in sports and try to give discount to women buying athletic footwear. while they can look into making sure they don't run out of Men's street footwears.
- The company can look into making its regional headquarters for the region that New York is located in New York.

Analysis Techniques Used in Excel: The Excel tool I used for this project was the Pivot Tables and Charts, I used these tools because of dynamism, with these tool I could get automatic updates on my Charts if the main dataset is updated.

7. POST ANALYTICS AND INSIGHTS

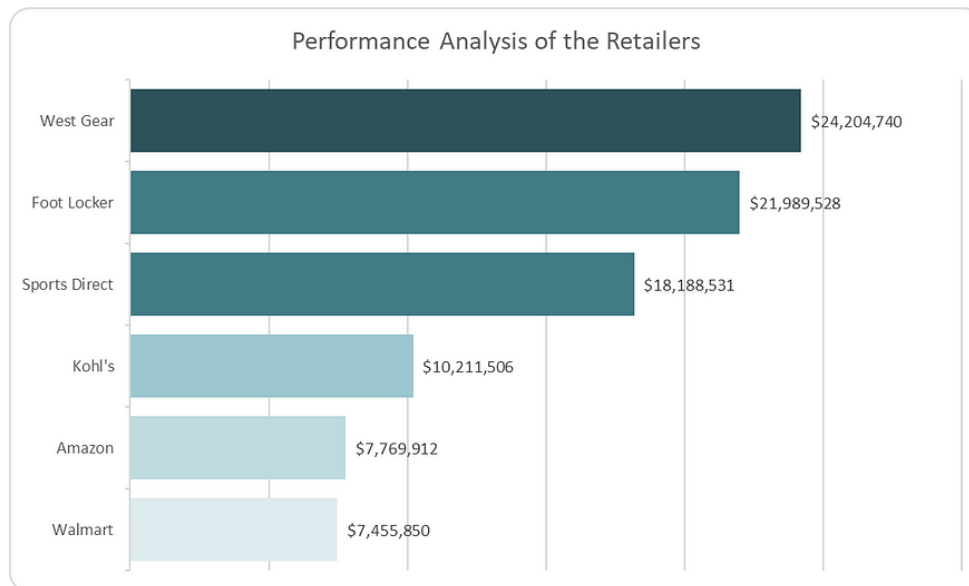**Key Findings:** Some of the key findings from my analysis were.

- The company generated $89,820,067 in total revenue for 2021.
- West Gear led in sales, making it the Retailer of the Year.
- Men's Street Footwear had the highest sales volume, contributing significantly to revenue.
- July was the best-performing month, indicating seasonal demand or successful marketing efforts.
- The Western region had the highest sales, confirming its position as the most profitable region.
- Charleston had the highest sales among cities, while New York and Florida were top-performing states.
- Sales Trends: Sales peaked in July and showed fluctuations throughout the year, with notable dips in February and September.

Comparison with Initial Findings: One of the expectations I had was that Sports wear and apparels would drive sales but I saw that men's street footwear had the most sales, I also expected big retail chains like Amazon and Walmart would lead sales but West gear out performed them.
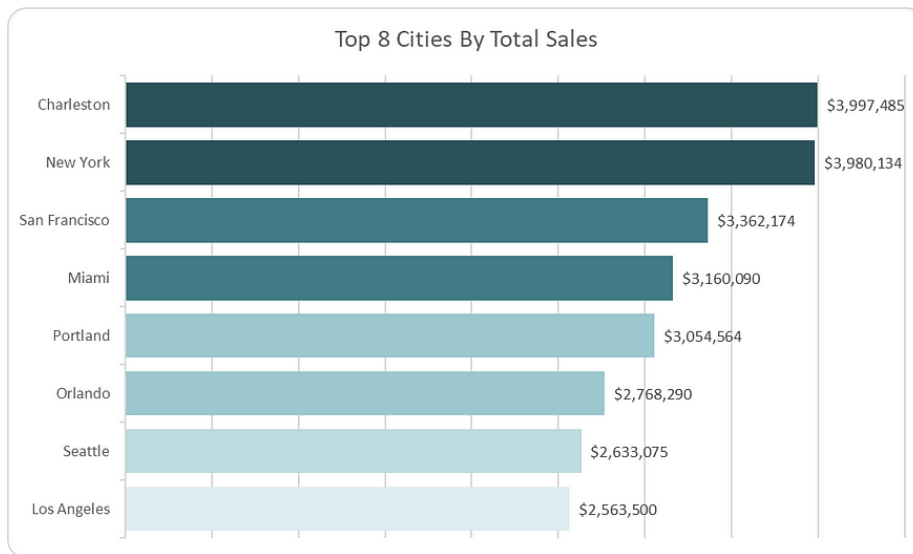
8. DATA VISUALIZATION AND CHARTS

Some of the charts used in my project include:

Performance Analysis on Retailers.

Performance Analysis of the Retailers

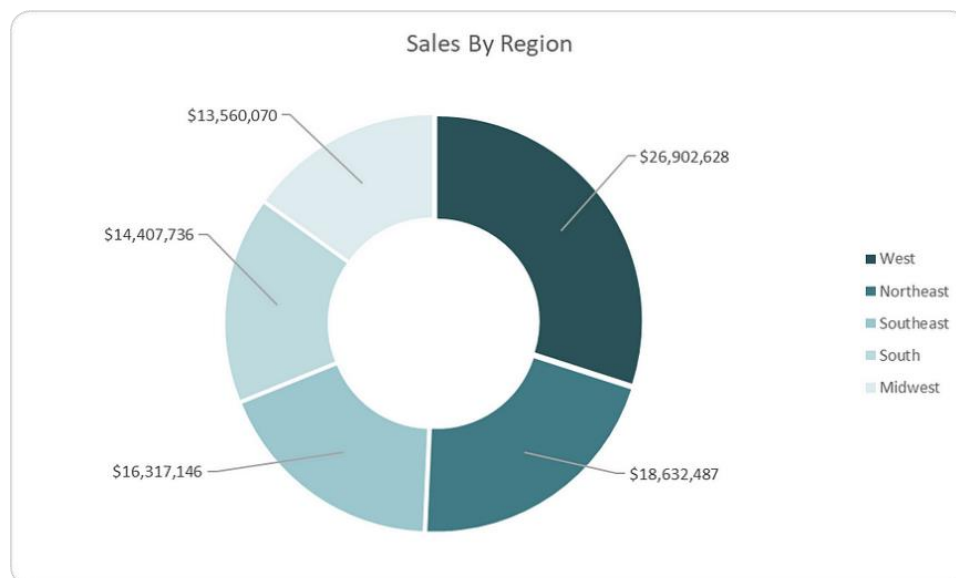| Retailer	Value
West Gear	$24,204,740
Foot Locker	$21,989,528
Sports Direct	$18,188,531
Kohl's	$10,211,506
Amazon	$7,769,912
Walmart	$7,455,850

West Gear leads ($24.2M), with Foot Locker ($21.0M) and Sports Direct ($18.1M) creating a top category hat drives about 72% of sales. Significant performance gap exists with Kohl's, Amazon and Walmart, indicating both concentration risk and growth opportunities.
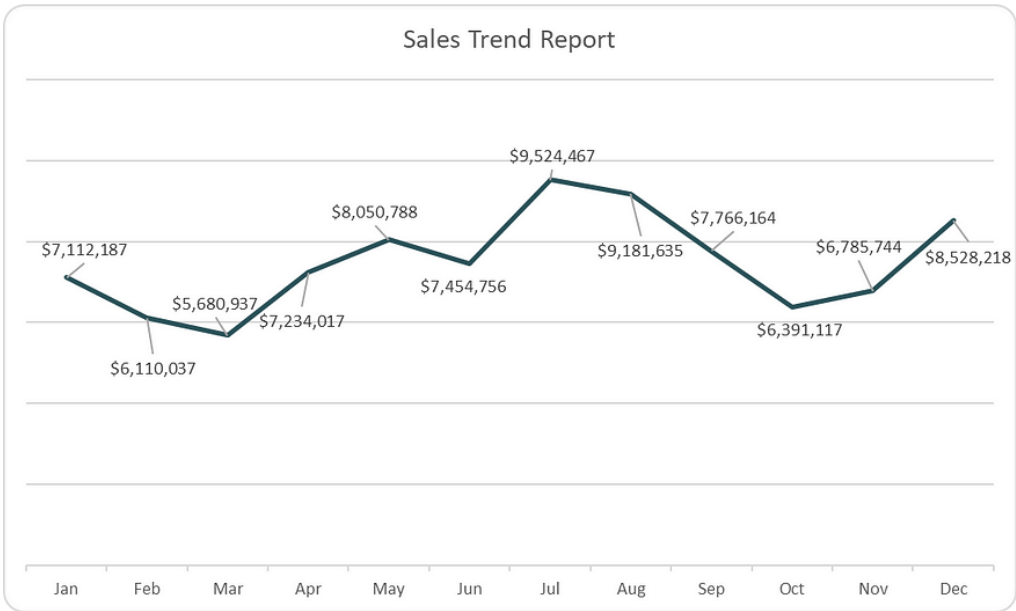
Top City by Sales

Top 8 Cities By Total Sales

City	Sales
Charleston	$3,997,485
New York	$3,980,134
San Francisco	$3,362,174
Miami	$3,160,090
Portland	$3,054,564
Orlando	$2,768,290
Seattle	$2,633,075
Los Angeles	$2,563,500

Charleston ($3.99M) and New York ($3.98M) lead city performance with nearly identical results, followed by San Francisco ($3.3M) and Miami ($3.1M). Portland, Orlando, Seattle and Los Angeles form a secondary tier ranging from $3M to $2.5M.

Regional Sales

Sales By Region

- West: $26,902,628
- Northeast: $18,632,487
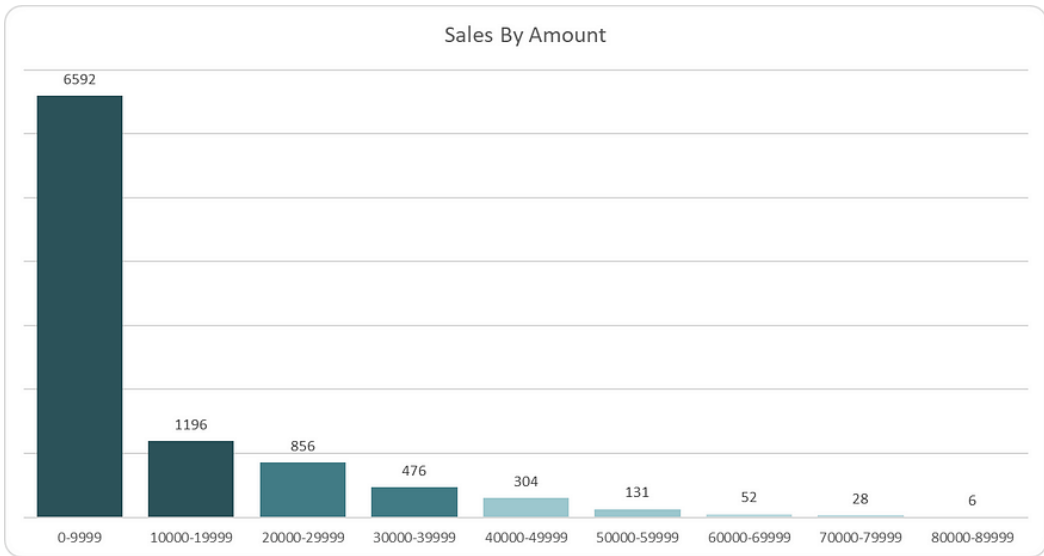- Southeast: $16,317,146
- South: $14,407,736
- Midwest: $13,560,070

The West dominates with $26.9M (30% of sales), followed by the Northeast ($18.6M) and Southeast ($16.3M). South ($14.4M) and Midwest ($13.6M) lag behind, showing regional imbalance.

Sales Trend Report

Sales Trend Report

$9,524,467

$8,050,788

$7,766,164

$7,112,187

$6,785,744

$8,528,218

$7,454,756

$9,181,635

$5,680,937

$7,234,017

$6,391,117

$6,110,037

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |

Sales demonstrate clear seasonality with two major peaks: summer (July at $9.5M) and holiday season (December at $8.6M). February marks the lowest point ($5.7M), while September shows a concerning dip ($6.4M) after strong summer performance.

Sales By Product Category

Sales By Amount

6592

1196

856

476

304

131

52

28

6

| 0-9999 | 10000-19999 | 20000-29999 | 30000-39999 | 40000-49999 | 50000-59999 | 60000-69999 | 70000-79999 | 80000-89999 |

Men's Street Footwear dominates at $20.8M, significantly outperforming all categories. Footwear generally outperforms apparel across genders, with Women's Apparel ($17.8M) being the notable exception. Men's products consistently outperform women's
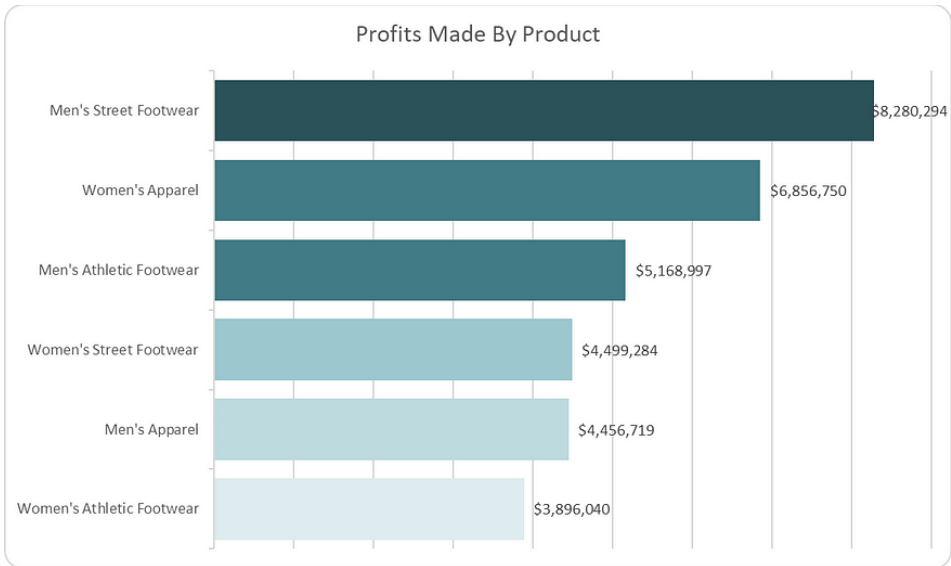
equivalents. The $10M gap between top and bottom categories highlights opportunities to strengthen Women's Athletic Footwear while leveraging existing strengths.

Sales By Amount
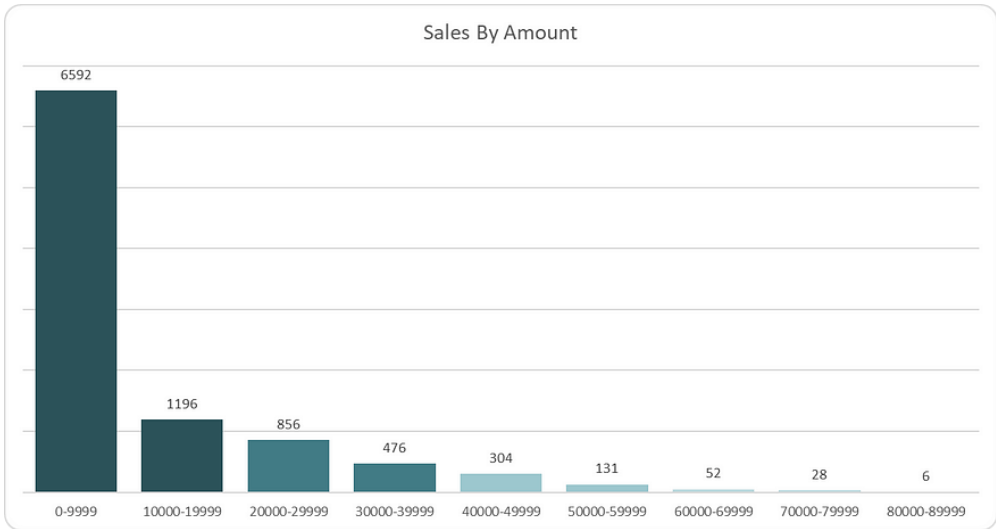

Lower-priced items dominate sales volume with 6,592 transactions under $10,000, representing over 68% of total sales. A dramatic drop-off occurs after this price point, with mid-range ($10,000-$29,999) items accounting for just 2,052 sales combined. Premium segments show minimal volume, with only 6 transactions in the highest bracket ($80,000-$89,999). This strong price sensitivity suggests focusing on affordable options while exploring strategies to upsell mid-range products.

Profits Generated by Product Category
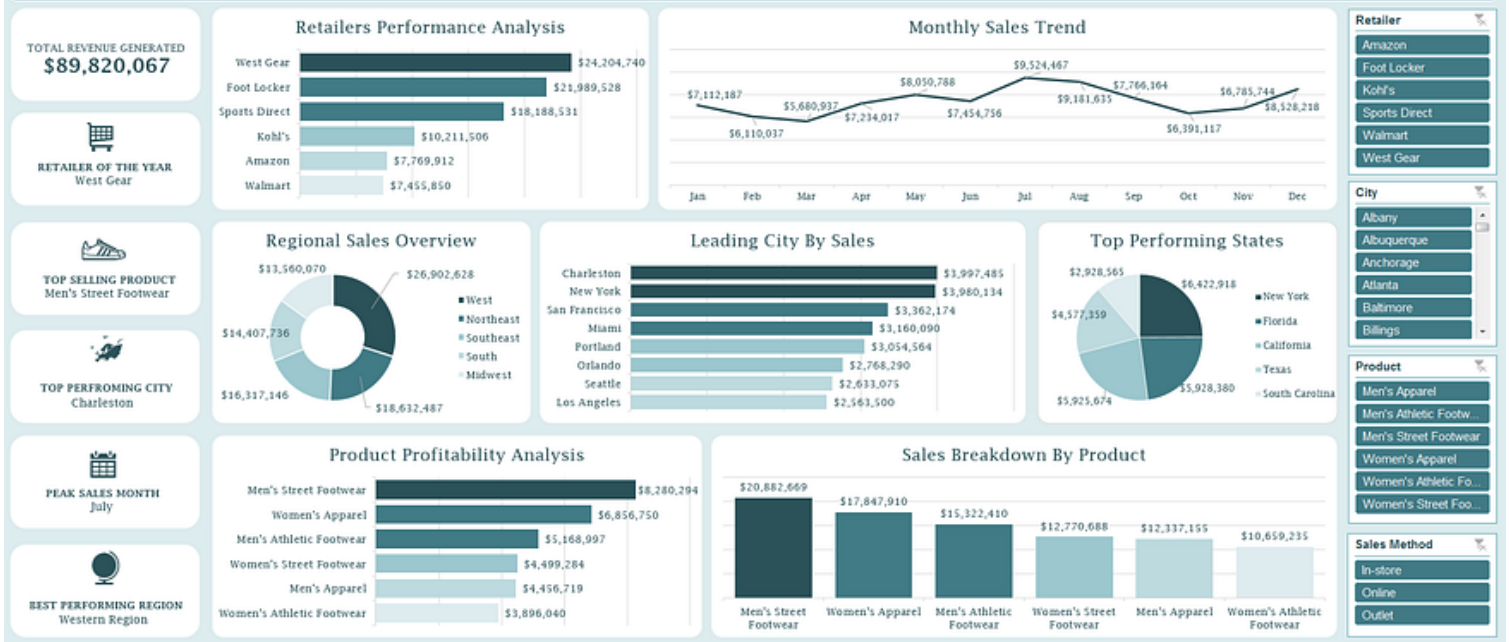
Men's Street Footwear dominates profits at $8.28M, with Women's Apparel showing strong margins at $6.85M. The $4.38M gap between top and bottom performers mirrors sales patterns, with Men's categories consistently outperforming Women's equivalents. Women's Athletic Footwear remains the weakest performer at $3.80M, highlighting a key improvement opportunity.

Top States by Sales
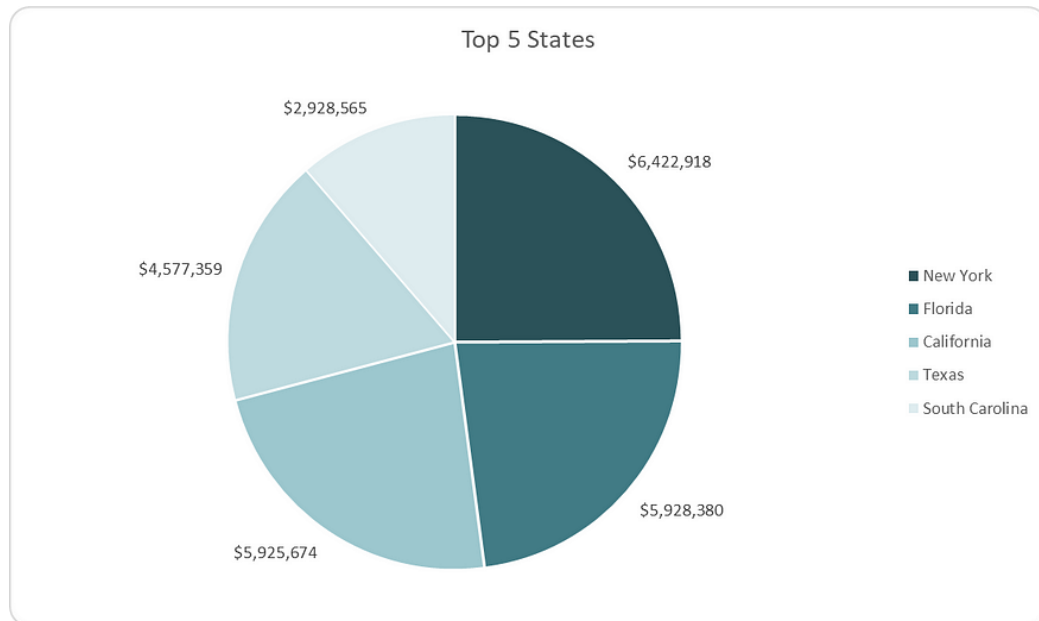
New York dominates with $6.42M in sales, while Florida and California show nearly identical performance around $5.92M each. Texas follows at $4.57M, with South Carolina trailing at $2.92M. The $3.5M gap between top and bottom performers highlights regional differences, suggesting targeted growth opportunities in underperforming states.

Dashboard of Apex Gear Performance Overview

9. RECOMMENDATIONS AND OBSEVATIONS

OBSERVATION

Some of the things I observed from the dashboard analysis include:

- Apex Gear generated a total revenue of nearly $90M ($89.82M) in 2021, demonstrating strong market performance despite potential industry challenges.
- West Gear emerged as both the top retailer with $24.2M in sales and earned the prestigious Retailer of the Year designation, outperforming competitors like Foot Locker ($21.99M) and Sports Direct ($18.19M).
- Men's Street Footwear dominated as the top selling product category, aligning with the overall trend of footwear outperforming apparel across most metrics throughout the year.
- Charleston surprised as the top performing city with $3.99M in sales, narrowly edging out the expected leader New York at $3.98M, suggesting strong market penetration in this Southern coastal city.
- July emerged as the peak sales month at $9.52M, with the sales chart showing significant monthly fluctuations including a second strong peak in December, indicating clear seasonal buying patterns.

- The Western region led overall sales performance at $26.9M, reinforcing the company's strength in this geographic area compared to other US regions.
- New York maintained its position as the top performing state with $6.42M in sales, followed closely by Florida and California, highlighting strong coastal market presence.
- A consistent pattern shows men's products generally outperforming their women's equivalents across categories, suggesting opportunities for growth in the women's segments.

RECOMMENDATIONS

Some of the recommendations I can give to the company include:

- They should strengthen partnerships with West Gear and Foot Locker through exclusive products and promotions while developing targeted strategies to improve Walmart's underperforming sales.
- They can capitalize on July's peak performance by launching early June promotional campaigns to build momentum. Address low-performing months with limited-time offers and loyalty programs.
- They should increase resource allocation to the dominant Western Region, potentially establishing regional headquarters. Revitalize Midwest performance with locally-tailored products and targeted marketing campaigns.
- They should intensify marketing in top cities Charleston and New York through local brand partnerships and regional events. Implement strategic initiatives in underperforming cities through community engagement.
- They can leverage Men's Street Footwear's profitability with aggressive marketing while creating bundled offers with lower-performing products to balance category dependence.
- They should boost Women's Athletic Footwear through female influencer partnerships, sports participation campaigns, and designs aligned with women's preferences.
- They should implement regular data analysis and customer feedback systems to identify emerging trends and continuously refine marketing strategies.

10. CONCLUSION

Apex Gear's 2021 performance analysis reveals a company with strong market presence generating nearly $90M in revenue, demonstrating clear patterns of success through specific retailers (West Gear, Foot Locker), product categories (Men's Street Footwear), regions (Western), and states (New York), while highlighting significant growth opportunities in underperforming segments. The substantial differences between top and bottom performers across all metrics indicate potential for increased revenue through targeted strategies that strengthen successful channels while revitalizing underperforming areas, particularly by leveraging established strengths in men's footwear while developing women's product lines. Strategic focus on seasonal patterns, regional preferences, retailer relationships, and consistent data analysis will position Apex Gear for sustainable growth and continued market relevance beyond 2021.