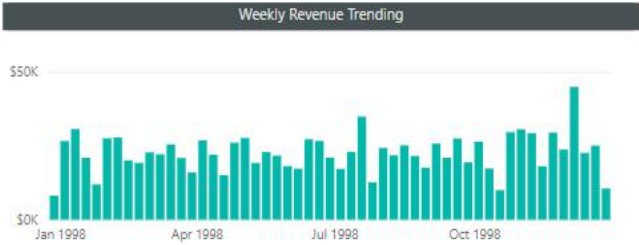




| Product Brand | Total Transactions | Total Profit | Profit Margin | Return Rate |
|---------------|--------------------|--------------|---------------|-------------|
| Hermanos      | 5,342              | \$21,753     | 58.64%        | 0.95%       |
| Ebony         | 5,239              | \$20,354     | 59.81%        | 0.96%       |
| Tell Tale     | 5,112              | \$19,982     | 58.05%        | 0.99%       |
| Tri-State     | 5,099              | \$19,980     | 58.91%        | 1.10%       |
| High Top      | 4,990              | \$19,810     | 60.42%        | 1.01%       |
| Nationeel     | 4,908              | \$18,617     | 60.44%        | 1.18%       |
| Best Choice   | 4,218              | \$18,355     | 60.64%        | 0.81%       |
| Horatio       | 4,195              | \$17,737     | 58.42%        | 1.26%       |
| Fort West     | 4,108              | \$15,834     | 59.80%        | 0.97%       |
| Fast          | 4,097              | \$16,469     | 61.03%        | 1.07%       |
| Sunset        | 3,953              | \$14,018     | 60.45%        | 1.03%       |
| Carrington    | 3,891              | \$14,883     | 59.52%        | 0.78%       |
| Red Wing      | 3,870              | \$15,870     | 59.36%        | 1.06%       |
| Big Time      | 3,816              | \$15,560     | 60.20%        | 1.05%       |
| Cormorant     | 3,744              | \$15,749     | 61.60%        | 0.87%       |
| Imagine       | 3,634              | \$15,102     | 61.40%        | 1.06%       |
| Super         | 3,618              | \$13,868     | 60.59%        | 0.96%       |
| Denny         | 3,584              | \$16,015     | 58.02%        | 0.99%       |
| High Quality  | 3,577              | \$16,139     | 59.98%        | 1.13%       |
| Golden        | 3,550              | \$13,256     | 58.72%        | 0.88%       |
| 888 Best      | 3,514              | \$12,991     | 62.12%        | 0.80%       |
| PigTail       | 3,467              | \$11,617     | 60.68%        | 1.04%       |
| Plato         | 3,352              | \$12,748     | 63.55%        | 1.06%       |
| Landslide     | 3,270              | \$10,647     | 58.65%        | 0.98%       |
| CDR           | 3,078              | \$12,062     | 58.98%        | 1.11%       |
| Better        | 2,823              | \$9,179      | 61.15%        | 1.07%       |
| Carlson       | 2,564              | \$10,534     | 61.20%        | 0.97%       |
| Pleasant      | 2,564              | \$10,187     | 60.18%        | 0.92%       |
| Just Right    | 2,558              | \$9,283      | 59.54%        | 0.83%       |
| Bravo         | 2,484              | \$11,027     | 59.15%        | 0.82%       |
| Total         | 1,13,668           | \$4,49,627   | 59.94%        | 1.00%       |

- Select all
- Canada
- Mexico
- USA



| transaction_date | stock_date | product_id | customer | store_id | quantity |
|------------------|------------|------------|----------|----------|----------|
| 01-01-1998       | 12/25/199  | 4          | 2439     | 10       | 3        |
| 01-01-1998       | 12/28/199  | 11         | 4284     | 10       | 3        |
| 01-01-1998       | 12/28/199  | 12         | 534      | 10       | 3        |
| 01-01-1998       | 12/29/199  | 14         | 9743     | 10       | 2        |
| 01-01-1998       | 12/27/199  | 16         | 3608     | 10       | 3        |
| 01-01-1998       | 12/27/199  | 23         | 1550     | 10       | 3        |
| 01-01-1998       | 12/28/199  | 46         | 1425     | 10       | 3        |
| 01-01-1998       | 12/29/199  | 50         | 1325     | 10       | 4        |
| 01-01-1998       | 12/30/199  | 56         | 3761     | 10       | 4        |
| 01-01-1998       | 12/31/199  | 59         | 1013     | 10       | 3        |
| 01-01-1998       | 12/26/199  | 61         | 1325     | 10       | 5        |
| 01-01-1998       | 12/26/199  | 61         | 1641     | 10       | 3        |
| 01-01-1998       | 12/31/199  | 75         | 5981     | 10       | 2        |
| 01-01-1998       | 12/26/199  | 89         | 3608     | 10       | 3        |
| 01-01-1998       | 12/31/199  | 90         | 8534     | 10       | 2        |
| 01-01-1998       | 12/29/199  | 112        | 1425     | 10       | 4        |
| 01-01-1998       | 12/26/199  | 115        | 1013     | 10       | 2        |
| 01-01-1998       | 12/30/199  | 119        | 1013     | 10       | 3        |
| 01-01-1998       | 12/31/199  | 120        | 9743     | 10       | 2        |
| 01-01-1998       | 12/31/199  | 126        | 7279     | 10       | 3        |
| 01-01-1998       | 12/26/199  | 127        | 1325     | 10       | 5        |
| 01-01-1998       | 12/28/199  | 130        | 9634     | 10       | 2        |
| 01-01-1998       | 12/26/199  | 139        | 6812     | 10       | 2        |
| 01-01-1998       | 12/28/199  | 159        | 1425     | 10       | 2        |
| 01-01-1998       | 12/25/199  | 163        | 7279     | 10       | 4        |
| 01-01-1998       | 12/26/199  | 165        | 5981     | 10       | 4        |
| 01-01-1998       | 12/26/199  | 166        | 534      | 10       | 2        |

| return_date | product_id | store_id | quantity |
|-------------|------------|----------|----------|
| 01-01-1997  | 250        | 6        | 1        |
| 01-01-1997  | 628        | 6        | 1        |
| 01-01-1997  | 869        | 6        | 1        |
| 01-02-1997  | 469        | 11       | 1        |
| 01-02-1997  | 532        | 23       | 2        |
| 01-02-1997  | 742        | 23       | 1        |
| 01-02-1997  | 761        | 11       | 1        |
| 01-02-1997  | 1396       | 11       | 1        |
| 01-03-1997  | 1          | 7        | 1        |
| 01-03-1997  | 365        | 7        | 2        |
| 01-03-1997  | 385        | 7        | 1        |
| 01-03-1997  | 671        | 7        | 1        |
| 01-03-1997  | 1329       | 23       | 2        |
| 01-05-1997  | 70         | 15       | 1        |
| 01-05-1997  | 461        | 7        | 1        |
| 01-05-1997  | 469        | 23       | 1        |
| 01-05-1997  | 850        | 7        | 1        |
| 01-05-1997  | 927        | 7        | 1        |
| 01-05-1997  | 961        | 23       | 1        |
| 01-05-1997  | 987        | 23       | 1        |
| 01-05-1997  | 1117       | 23       | 1        |
| 01-05-1997  | 1292       | 15       | 1        |
| 01-05-1997  | 1458       | 23       | 1        |
| 01-06-1997  | 23         | 24       | 1        |
| 01-06-1997  | 40         | 24       | 2        |
| 01-06-1997  | 43         | 6        | 1        |
| 01-06-1997  | 85         | 24       | 1        |

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## Table of Contents

1. Executive Summary
2. Business Problem (Need)
3. Objectives and Scope
4. Data Requirement
5. Data Collection and Understanding
6. Data Validation (Bias/Transparency/Reliability)
7. Data Cleaning and Exploration (EDA)
8. Tools and Techniques Selection
9. Graphical Analysis
  - Univariate Analysis
  - Bivariate Analysis
  - Multivariate Analysis
10. Detailed Dashboard Insights
  - Transactions Analysis
  - Profitability Insights
  - Return Rates Investigation
  - Regional Sales Breakdown
  - Product Performance Assessment
11. Storytelling and Business Impact
12. Data-to-Business Translation
13. Strategic Recommendations
14. Implementation Plan
  - Short-Term Actions (1–3 months)

- Medium-Term Actions (4–6 months)
  - Long-Term Actions (7–12 months)
  - 15. Monitoring and KPIs
  - 16. Challenges and Mitigation Strategies
  - 17. Conclusion
  - 18. Appendix
- 

## **1. Executive Summary**

Maven Market's dashboard provides a comprehensive snapshot of its operational and financial performance. With over 18,325 monthly transactions, \$71,682 in monthly profit, and a return rate of 1.00%, the dashboard highlights both achievements and areas for improvement. While the company has exceeded its transaction goals (+5.69%), challenges remain in optimizing profit margins, reducing return rates, and diversifying regional contributions. This report delves into these aspects, presenting insights, recommendations, and actionable strategies for sustained growth.

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## **2. Business Problem (Need)**

The dashboard reveals several key challenges Maven Market must address:

### **1. Uneven Regional Contributions:**

- Canada accounts for the majority of revenue, while Mexico and the USA underperform. This regional imbalance may hinder overall market diversification and growth.

### **2. High Return Rates:**

- Products like "Horatio" exhibit return rates above 1.2%, significantly impacting profitability and customer satisfaction.

### **3. Underperforming Products:**

- While "Hermanos" leads in transactions, its profit margins are moderate compared to competitors.

Maven Market must address these issues to achieve:

- Sustained revenue growth.
  - Improved profitability and cost-efficiency.
  - Enhanced customer experience and retention.
- 

### 3. Objectives and Scope

#### Objectives:

1. Identify key drivers of profitability and operational efficiency.
2. Minimize return rates while maintaining high transaction volumes.
3. Develop region-specific strategies to enhance market penetration.

**Scope:** This report focuses on analyzing transactional data, profitability metrics, return rates, and regional sales distributions. It leverages Power BI insights and additional analytical techniques to provide a roadmap for achieving business goals.

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### 4. Data Requirement

Key data points required for this analysis:

#### 1. Sales Data:

- Weekly and monthly revenue trends.
- Transaction volumes by product and region.

#### 2. Profitability Metrics:

- Total profit by product and region.
- Profit margins and their alignment with targets.

#### 3. Operational Metrics:

- Return rates by product.

- Performance of top-selling products.

#### **4. Comparative Metrics:**

- Goals vs. actuals (e.g., \$120K revenue target).
  - Regional benchmarks.
- 

### **5. Data Collection and Understanding**

The analysis leverages data from Maven Market's Power BI dashboard:

#### **1. Time Period:**

- The data covers weekly and monthly trends, providing a granular view of performance.

#### **2. Regional Breakdown:**

- Sales data segregated by Canada, USA, and Mexico.

#### **3. Product-Level Data:**

- Transaction counts, profit margins, and return rates for over 30 product brands.

### **Key Observations:**

- "Hermanos" leads with 5,342 transactions but has a moderate profit margin of 58.64%.
  - Canada dominates revenue contributions, while Mexico's performance requires improvement.
  - Return rates vary significantly, with some products exceeding 1.2%.
- 

### **6. Data Validation (Bias/Transparency/Reliability)**

#### **Bias Checks:**

- Ensure equal representation of regions (Canada, USA, Mexico) to avoid skewed insights.

#### **Transparency:**

- Clearly document calculations for profit margins and return rates.

### **Reliability:**

- Verify data consistency across multiple sources (e.g., transaction logs vs. Power BI outputs).
- 

## **7. Data Cleaning and Exploration (EDA)**

### **Cleaning Steps:**

- Standardized product names to eliminate duplicates.
- Addressed missing values in transaction and profit data.
- Removed outliers in return rates for accurate trend analysis.

### **Exploration Insights:**

- High-return products correlate with low-profit margins.
  - Canada's seasonal spikes align with promotional campaigns.
- 

## **8. Tools and Techniques Selection**

### **1. Power BI:**

- Used for interactive dashboards and real-time insights.

### **2. Python:**

- Supplementary analysis (e.g., correlation analysis, predictive modeling).

### **3. SQL:**

- Efficient data extraction and transformation.
- 

## **9. Graphical Analysis**

### **Univariate Analysis:**

- Top-performing products (e.g., "Hermanos") by transaction volume.

- Regional sales distribution: Canada leads, followed by the USA and Mexico.

### **Bivariate Analysis:**

- Profit margins vs. return rates: Identified products with high returns and low margins.

### **Multivariate Analysis:**

- Revenue trends across regions, products, and time periods reveal opportunities for optimization.
- 

## **10. Detailed Dashboard Insights**

### **Transactions:**

- Current month transactions: 18,325, exceeding the goal by 5.69%.

### **Profitability:**

- Current month profit: \$71,682, 5.61% below target.

### **Return Rates:**

- Return rate: 1.00%, with specific products like "Horatio" exceeding 1.2%.

### **Regional Sales:**

- Canada contributes the majority of revenue; Mexico shows potential for growth.

### **Product Performance:**

- "Hermanos" leads in transactions but has room for margin improvement.
- 

## **11. Storytelling and Business Impact**

The data reveals actionable insights:

- **Regional Focus:** Enhance marketing efforts in Mexico and the USA to diversify revenue streams.

- **Product Optimization:** Address quality or pricing issues for high-return products.
  - **Profitability:** Leverage tiered discount strategies to boost margins.
- 

## **12. Data-to-Business Translation**

### **Revenue Growth:**

- Launch targeted campaigns in underperforming regions.
- Introduce premium product lines to boost average transaction value.

### **Cost Management:**

- Investigate and resolve issues causing high return rates.
- 

## **13. Strategic Recommendations**

1. Introduce product-level incentives to improve margins.
2. Optimize the return policy to reduce the impact on profitability.
3. Expand investments in underperforming regions.

## **14. Implementation Plan**

### **Short-Term (1–3 months):**

- Implement revised discount and return policies.
- Launch targeted campaigns in Mexico and the USA.

### **Medium-Term (4–6 months):**

- Monitor the impact of regional campaigns and adjust strategies.
- Develop new product bundles to increase average transaction value.

### **Long-Term (7–12 months):**

- Scale dashboard insights with predictive analytics for real-time decision-making.
- Explore new market opportunities beyond North America.



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## 15. Monitoring and KPIs

1. **Revenue Growth:** Weekly and monthly trends.
2. **Return Rate Reduction:** Target below 1% for all products.
3. **Regional Contributions:** Increase USA and Mexico's share by 20% within six months.

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## 16. Challenges and Mitigation Strategies

**Challenge 1:** Limited regional penetration.

- **Mitigation:** Deploy localized marketing strategies.

**Challenge 2:** High return rates.

- **Mitigation:** Enhance product quality and customer support.

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## 17. Conclusion

Maven Market's dashboard insights provide a roadmap for optimizing profitability, diversifying regional contributions, and reducing return rates. By implementing the recommended strategies, the company can achieve its \$120K revenue target and establish a stronger market presence.