Sales Performance Analysis

Comprehensive Exploratory Data Analysis

January - June 2024 | Generated January 2025

Executive Summary

\$59.89M

Total Revenue

\$14.99M

Total Profit

24.97%

Avg Profit Margin

2,205

Total Transactions

? Key Strategic Insights

- **Strong Growth Momentum:** Q2 outperformed Q1 by 2.0%, demonstrating consistent business expansion
- Balanced Portfolio: Well-diversified across 4 regions and 7 product categories with no concentration risk
- **Profit Leader:** Headphones category delivers highest profit margin at 25.9% across all regions
- Market Position: Premium pricing strategy successful with \$523 average unit price and healthy margins

Data Quality Assessment

Quality Metric	Result	Status
Total Records	2,205	✓ Complete
Missing Values	0	✓ Perfect
Duplicate Records	0	✓ Clean
Date Coverage	182/182 days	✓ Complete

Dataset Structure

- **Time Period:** January 1, 2024 June 30, 2024 (6 months)
- **Geographic Coverage:** 4 regions (North, South, East, West)
- **Product Portfolio:** 7 categories (Smartphone, Headphones, Mouse, Keyboard, Tablet, Monitor, Laptop)

Data Quality Assessment

The dataset demonstrates exceptional quality with perfect data integrity. All revenue calculations have been mathematically verified (Revenue = Units Sold × Unit Price), and the complete date coverage ensures reliable trend analysis.

Validation Results

- ✓ Revenue calculations verified: 100% accurate
- ✓ Profit margin calculations: 0.000000% error
- ✓ No negative values detected
- ✓ Complete date coverage confirmed

Temporal Performance Analysis

Monthly Revenue and Profit Trends Temporal Insights



Region	Revenue	Share	Profit	Share
North	\$15.53M	25.9%	\$3.78M	25.2%
East	\$15.30M	25.6%	\$3.86M	25.8%
West	\$14.56M	24.3%	\$3.68M	24.6%
South	\$14.49M	24.2%	\$3.66M	24.4%

Regional Market Share Distribution

Product Portfolio Performance

Product	Revenue	Rev Rank	Profit	Profit Rank	Margin	Margin Rank	Units
Smartphone	\$9.26M	1	\$2.29M	2	25.1%	2	16,868
Headphones	\$9.02M	2	\$2.36M	1	25.9%	1	17,449
Mouse	\$8.93M	3	\$2.18M	3	24.5%	5	16,225
Keyboard	\$8.39M	4	\$2.08M	5	24.6%	4	16,087
Tablet	\$8.35M	5	\$2.08M	4	24.9%	3	16,136
Monitor	\$7.97M	6	\$1.95M	7	24.4%	6	15,478
Laptop	\$7.97M	7	\$2.06M	6	25.1%	2	15,578

Product Portfolio Insights

Headphones Excellence: Achieves the perfect trifecta - highest profit margin (25.9%), highest total profit (\$2.36M), and highest unit sales (17,449 units). **Smartphone Leadership:** Dominates revenue generation (\$9.26M) while maintaining strong profit margins (25.1%).

T Cross-Analysis & Opportunities



High-Value Opportunities

Region × Product	Revenue	Level
East × Headphones	\$2.61M	HIGH
South \times Keyboard	\$2.57M	HIGH
North \times Laptop	\$2.53M	HIGH

Strategic Opportunities

East Region × **Headphones:** The highest-performing combination at \$2.61M revenue represents a proven success model that can be replicated across other regions.



? Strategic Recommendations

Immediate Actions (0-3 months)

Revenue Optimization

- Scale Headphones Success: Replicate East region's Headphones performance (\$2.61M) across other regions
- **Premium Positioning:** Leverage Smartphone's revenue leadership for market expansion
- Inventory Optimization: Increase stock allocation for high-margin products

Medium-term Strategy (3-12 months)

Market Expansion

- Regional Best Practices: Study East region's profit efficiency for replication
- Product Line Extension: Develop premium variants of top-performing categories
- Dynamic Pricing: Implement region-specific pricing based on performance data

Long-term Vision (12+ months)

Business Intelligence

- Predictive Analytics: Develop sales forecasting models
- Customer Intelligence: Implement customer segmentation analysis

⊘ Analysis Complete

Thank you for your attention

Questions & Discussion

☑ Data Analytics Team