



Business Report

2014 , 2015 , 2016 , 2017

American Shipping Company

Business Intelligence Report for American Shipping Company | Logistics & Sales Analytics

PREPARED BY

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Title

Business Intelligence Report for American Shipping Company | Logistics & Sales Analytics

Context

American Shipping Company, a major logistics provider operating across the United States, needed to consolidate disparate operational data into a unified business intelligence system. With multiple shipping modes, customer segments, and product categories, the company required an integrated dashboard to optimize logistics operations and enhance sales strategy across all 50 states.

Problem / Question

How can American Shipping Company gain real-time visibility into operational performance across different shipping modes, customer segments, and geographic regions to optimize logistics efficiency, reduce costs, and maximize revenue growth?

Tools Used

- Microsoft Excel: Advanced dashboard development with interactive slicers and Pivot Charts
- Data Modeling: Multi-dimensional analysis across time, geography, product categories, and customer segments
- KPI Framework: Balanced scorecard approach tracking financial, operational, and customer metrics

Process Walk-through

1. Data Integration: Consolidated data from shipping logs, sales transactions, customer database, and returns management system.

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2. Data Validation: Cleaned and standardized state names, product categories, and shipping mode classifications.
 3. Dashboard Architecture:
 - Designed a comprehensive KPI header with financial and operational metrics
 - Created complementary visualizations for geographic, temporal, and categorical analysis
 - Implemented four interactive slicers for dynamic filtering
 4. Performance Benchmarking: Established revenue targets and achievement tracking mechanisms.

Key Findings

- Revenue Overachievement: Company exceeded \$250K target by 14.6% (\$286.4K actual), indicating strong market position.
- Geographic Concentration: West region dominated with 32% of total sales, while South region underperformed at 17%.
- Product Category Performance: Technology products showed highest growth potential, while Furniture maintained steady revenue.
- Shipping Mode Efficiency: First Class and Same Day shipping correlated with higher-value orders but required cost optimization.
- Temporal Trends: Consistent year-over-year growth from 2014-2017, with identifiable seasonal patterns for inventory planning.

Visuals with a Purpose

- Geographic Bar Charts (States/Cities): For targeted resource allocation and regional strategy development.
- Product Category Column Chart: To guide inventory planning and product portfolio optimization.
- Temporal Line Chart: For trend analysis, seasonal planning, and growth trajectory monitoring.
- Regional Pie Charts: To quickly understand market distribution and identify growth opportunities.
- Interactive Slicers: For self-service analysis by different departments (sales, logistics, marketing).

Main Takeaway

The dashboard revealed that while American Shipping Company successfully exceeded revenue targets, significant opportunities exist in optimizing geographic coverage (particularly in the South region) and balancing shipping mode efficiency with customer satisfaction. The immediate priority should be replicating West region success strategies in underperforming markets.

What I Learned from this Case Study

- How to design multi-dimensional logistics dashboards that serve both operational and commercial teams.
- The importance of integrating financial and operational metrics in transportation business intelligence.
- How to use interactive filtering to create personalized views for different stakeholders (state managers, product managers, logistics coordinators).

Reflection and Next Steps

- Reflection: The Excel dashboard successfully provided comprehensive visibility. A limitation was the inability to track real-time shipping status and customer satisfaction metrics.
- Next Steps:
 1. Real-time Tracking Integration: Connect to GPS and logistics APIs for live shipment monitoring.
 2. Customer Satisfaction Metrics: Incorporate Net Promoter Score (NPS) and on-time delivery rates.
 3. Cost Optimization Analysis: Develop detailed cost-per-shipment models by mode and distance.
 4. Predictive Analytics: Implement machine learning for delivery time predictions and demand forecasting.

Invite Feedback

- Which insight (geographic, product, or operational) do you find most valuable for strategic decisions?
- How could the dashboard be enhanced to better serve logistics operations teams?
- What additional metrics would be crucial for a comprehensive shipping company analysis?





Sales Dashboard

Total Sales

\$2,297,201

Returns

\$180,504

Net Sales

\$2,116,697

Discounts

(\$297,687)

COGS

\$1,555,845

T. Customers

793

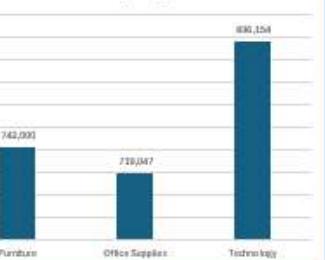
Total Orders

5009

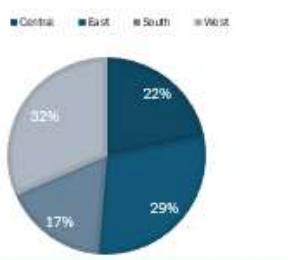
Revenue

\$286,397

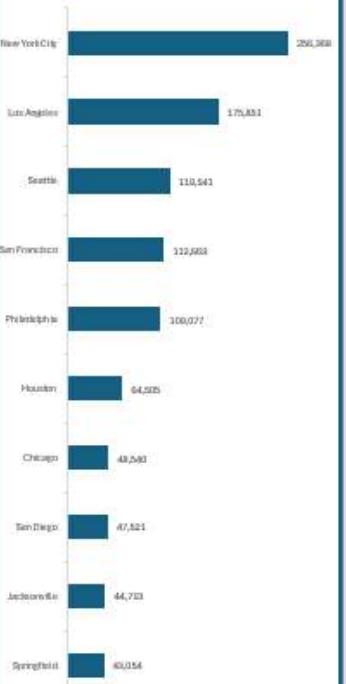
Sales By Categories



SALES BY SALES REGION



Top 10 Cities in Sales



Top 10 Sales in Sales



Order Date

All Periods

2014

Q1 Q2 Q3 Q4

2015

Q1 Q2 Q3 Q4

2016

Q1 Q2 Q3 Q4

2017

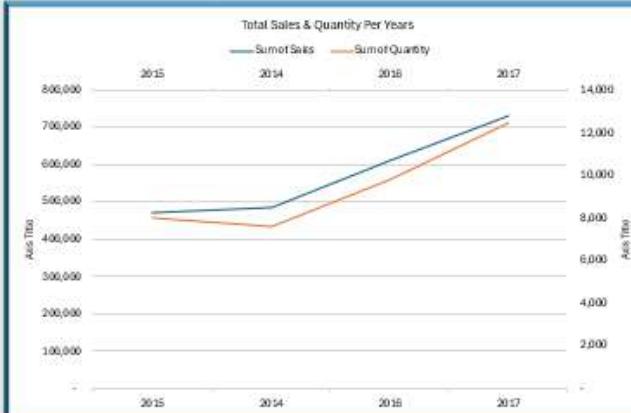
Q1 Q2 Q3 Q4

286.4K
Target: 250K (+14.5%)

| Category |
|-----------------|
| Furniture |
| Office Supplier |
| Technology |

| City |
|---------------|
| Linden |
| Lindenhurst |
| Little Rock |
| Littletown |
| Lodi |
| Logan |
| Long Beach |
| Lone Mountain |
| Lovavice |

| State |
|----------------------|
| Alabama |
| Arizona |
| Arkansas |
| California |
| Colorado |
| Connecticut |
| Delaware |
| District of Columbia |
| Florida |





| Sales By State & Category | | Column La ▾ | Furniture | Office Supplies | Technology | Grand Total |
|---------------------------|--|-------------|----------------|-----------------|----------------|------------------|
| Row Labels | | ▼ | | | | |
| New York | | | 93,373 | 90,020 | 127,484 | 310,876 |
| California | | | 156,065 | 142,352 | 159,271 | 457,688 |
| Pennsylvania | | | 39,355 | 34,942 | 42,215 | 116,512 |
| Texas | | | 60,593 | 44,491 | 65,104 | 170,188 |
| Washington | | | 48,020 | 40,084 | 50,537 | 138,641 |
| Grand Total | | | 397,406 | 351,889 | 444,611 | 1,193,905 |

| Total Profit | Total Profit Go | Total Profit Status |
|--------------|-----------------|---------------------|
| \$286,397 | 250000 | ▲ |

| Total Sales & Quantity Per Years | | Sum of Sales | Sum of Quantity |
|----------------------------------|------|------------------|-----------------|
| ▫ | 2015 | | |
| ▫ | Qtr1 | 68,852 | 990 |
| ▫ | Qtr2 | 89,124 | 1,604 |
| ▫ | Qtr3 | 130,260 | 2,241 |
| ▫ | Qtr4 | 182,297 | 3,144 |
| ▫ | 2014 | | |
| ▫ | Qtr1 | 74,448 | 1,028 |
| ▫ | Qtr2 | 86,539 | 1,523 |
| ▫ | Qtr3 | 143,633 | 2,159 |
| ▫ | Qtr4 | 179,628 | 2,871 |
| ▫ | 2016 | | |
| ▫ | Qtr1 | 93,237 | 1,243 |
| ▫ | Qtr2 | 136,082 | 2,240 |
| ▫ | Qtr3 | 143,787 | 2,767 |
| ▫ | Qtr4 | 236,099 | 3,587 |
| ▫ | 2017 | 733,215 | 12,476 |
| Grand Total | | 2,297,201 | 37,873 |



| Top 10 Cities | Sum of Sales |
|--------------------|------------------|
| Springfield | 43,054 |
| Jacksonville | 44,713 |
| San Diego | 47,521 |
| Chicago | 48,540 |
| Houston | 64,505 |
| Philadelphia | 109,077 |
| San Francisco | 112,669 |
| Seattle | 119,541 |
| Los Angeles | 175,851 |
| New York City | 256,368 |
| Grand Total | 1,021,839 |

| Top 10 States | Sum of Sales |
|--------------------|------------------|
| Virginia | 70,637 |
| Michigan | 76,270 |
| Ohio | 78,258 |
| Illinois | 80,166 |
| Florida | 89,474 |
| Pennsylvania | 116,512 |
| Washington | 138,641 |
| Texas | 170,188 |
| New York | 310,876 |
| California | 457,688 |
| Grand Total | 1,588,709 |

| Sales By Sub Category | Sum of Sales |
|-----------------------|------------------|
| Binders | 203,413 |
| Tables | 206,966 |
| Storage | 223,844 |
| Chairs | 328,449 |
| Phones | 330,007 |
| Grand Total | 1,292,678 |

| Sales By Sales Rep. | Sum of Sales |
|---------------------|------------------|
| Central | 501,240 |
| East | 678,781 |
| South | 391,722 |
| West | 725,458 |
| Grand Total | 2,297,201 |



COMPANY

Sum of Sales

\$ 2,297,201

Sum of Discount Value

\$ (322,582)

Sum of Cogs

\$ (1,688,222)

Sum of Profit

\$ 286,397

Sum of Quantity

37873

Values

| | |
|---------------------|--------|
| Total Orders | 5009 |
| Total Customers | 793 |
| No of consumers | 5191 |
| Profit Per Customer | 361.16 |
| Profit Per Order | 57.18 |
| Average Profit | 28.66 |

Sales By Categories ▾ Sum of Sales

| | |
|--------------------|------------------|
| Furniture | 742,000 |
| Office Supplies | 719,047 |
| Technology | 836,154 |
| Grand Total | 2,297,201 |

Row Labels**Sum of Sales Sum of Discount Value Sum of Cogs**

| | | | |
|--------------------|------------------|----------------|-----------------|
| Yes | \$ 180,504 | -24896 | -132376 |
| (blank) | \$ 2,116,697 | \$ (297,687) | \$ (1,555,845) |
| Grand Total | 2,297,201 | -322582 | -1688222 |