amazon

AMAZON SALES ANALYSIS

Data Visualization

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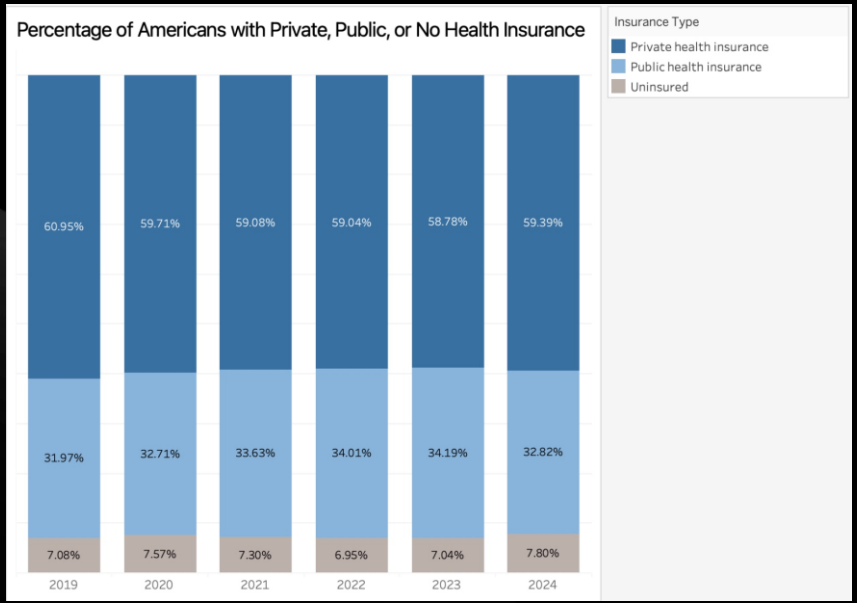
JOURNEY AND CHALLENGES

From Choice to Change

Why we moved away from the U.S. Health Insurance Data

- Limited Variation in Trends
- Lack of Engaging Storytelling
- Categorical Data Can Be Restrictive
- Only one variable: No. of people



Trends? Yes

Actionable Insights? No

DATA SELECTION

From Static to Strategic

Why Amazon Sales Data Wins

Trends? Yes

Actionable Insights? Yes

Appealing Dashboard? Yes

Sales over time

Pricing and Revenue

Purchasing behavior **Regional Sales**

Profit

Operational Efficiency

Global Sales Distribution

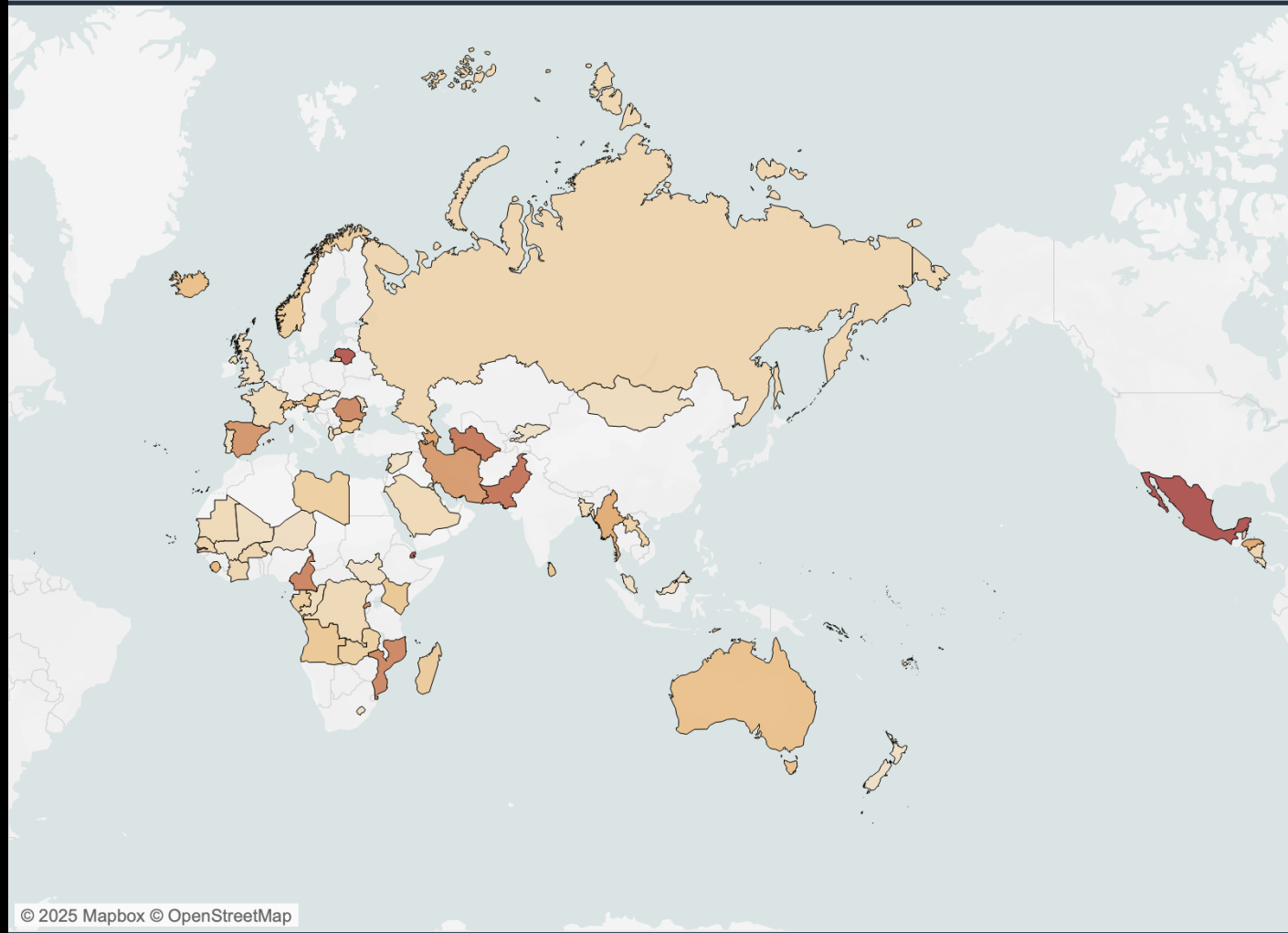
WHY CHOROPLETH?

Regional spread of revenue, easy to **identify top-performing markets.**

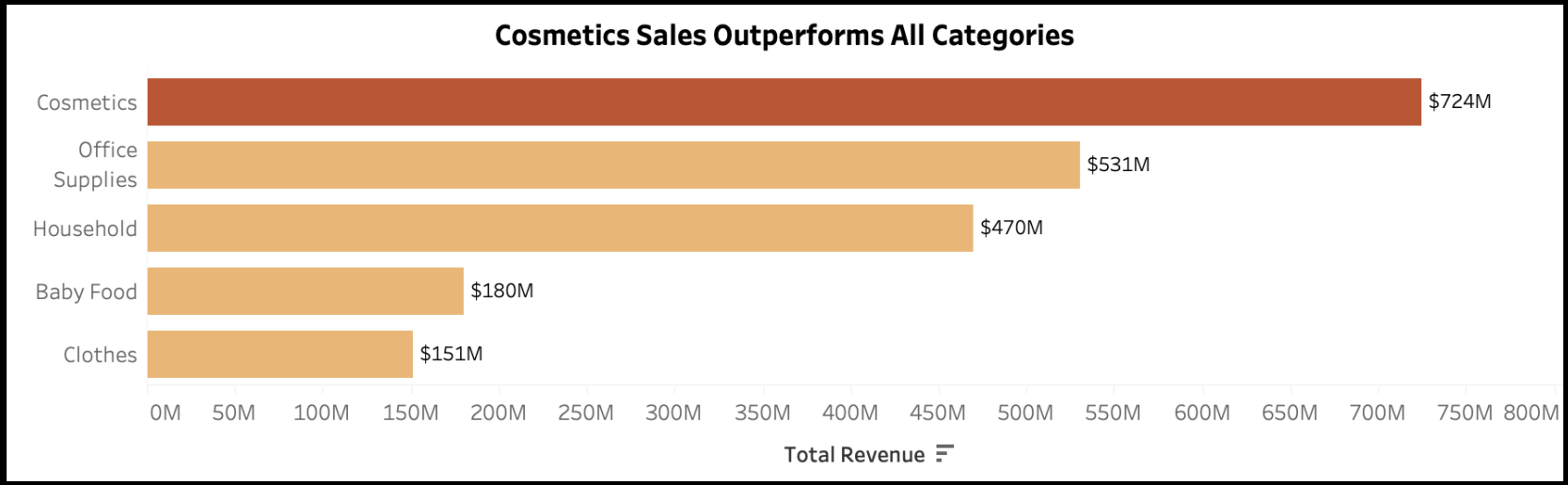
Data Principles in Action:

- **Proportional encoding** maintaining value integrity
- **Cognitive load reduction** using appropriate color gradients

Mexico Ranks #1 in Total Revenue Contribution



Unlocking Revenue Drivers: Cosmetics



WHY BAR CHART?

Showcases Sales distribution across regions, making it easy to identify top-performing markets.

Data Principles in Action:

- **Ranking for easy readability**
- **Color contrast to emphasise highest contributing variable**

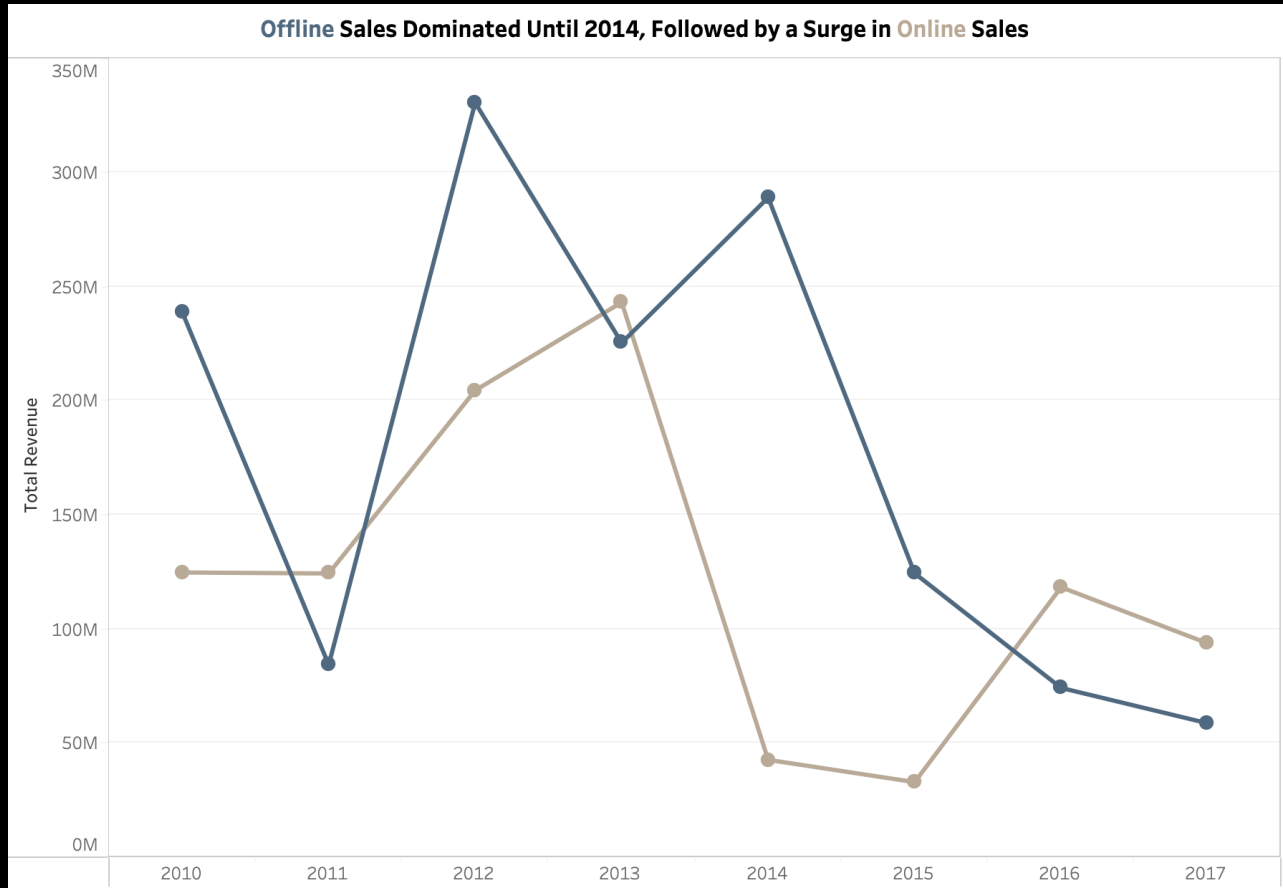
The Digital Shift: Online Sales Surge 2015

WHY LINE CHART?

Effectively visualizes **changes over time**

Data Principles in Action:

- **Time-series data displayed for trend clarity**
- **Contrast in colors differentiates sales channels**



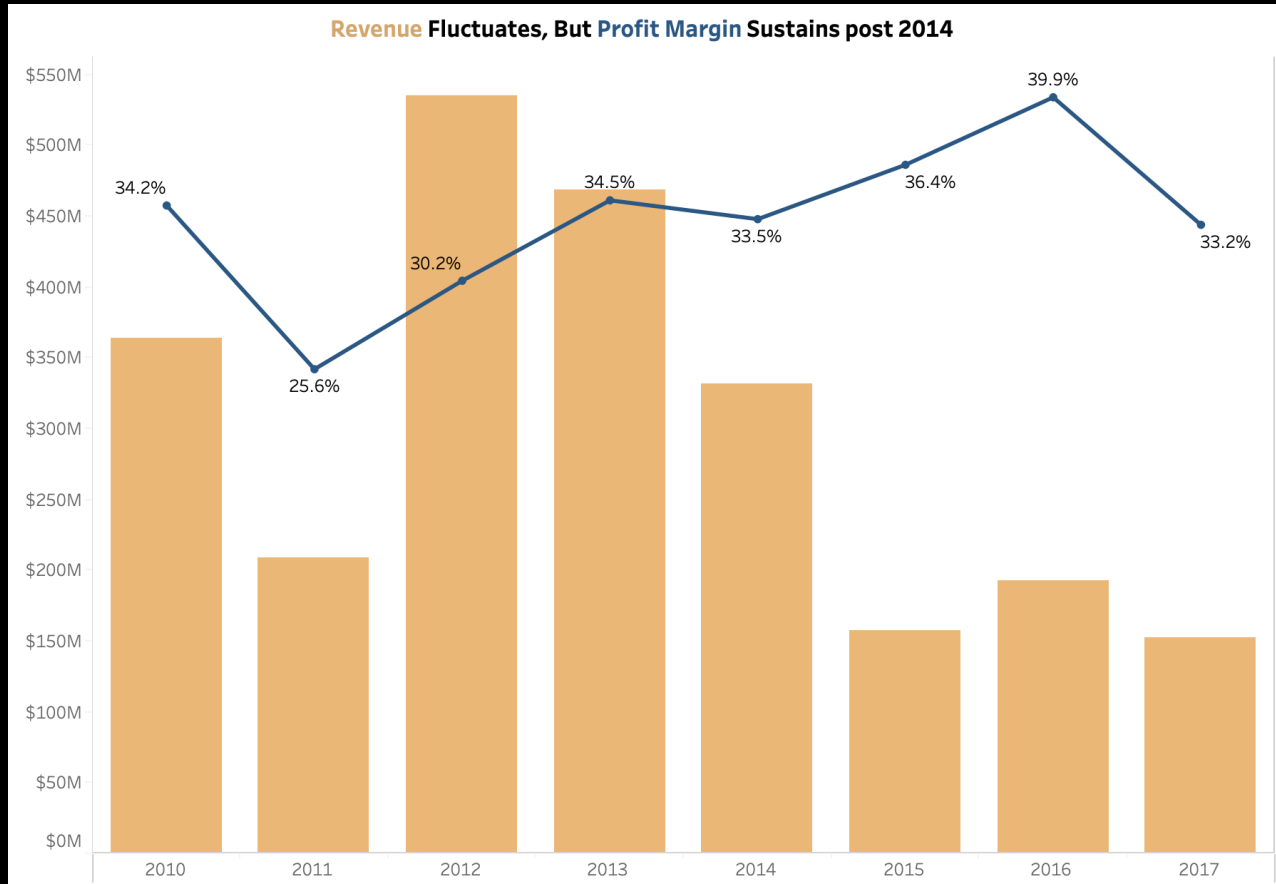
Steady Margins Amid Revenue Volatility

WHY COMBINATION CHART?

DUAL INSIGHT: Effectively **compares revenue with profit margin**

Data Principles in Action:

- **Dual-Element visualization enhances data clarity**
- **Distinct color coding for revenue (bars) and profit margin (line)**
- **Easy trend identification (2015 shift)**



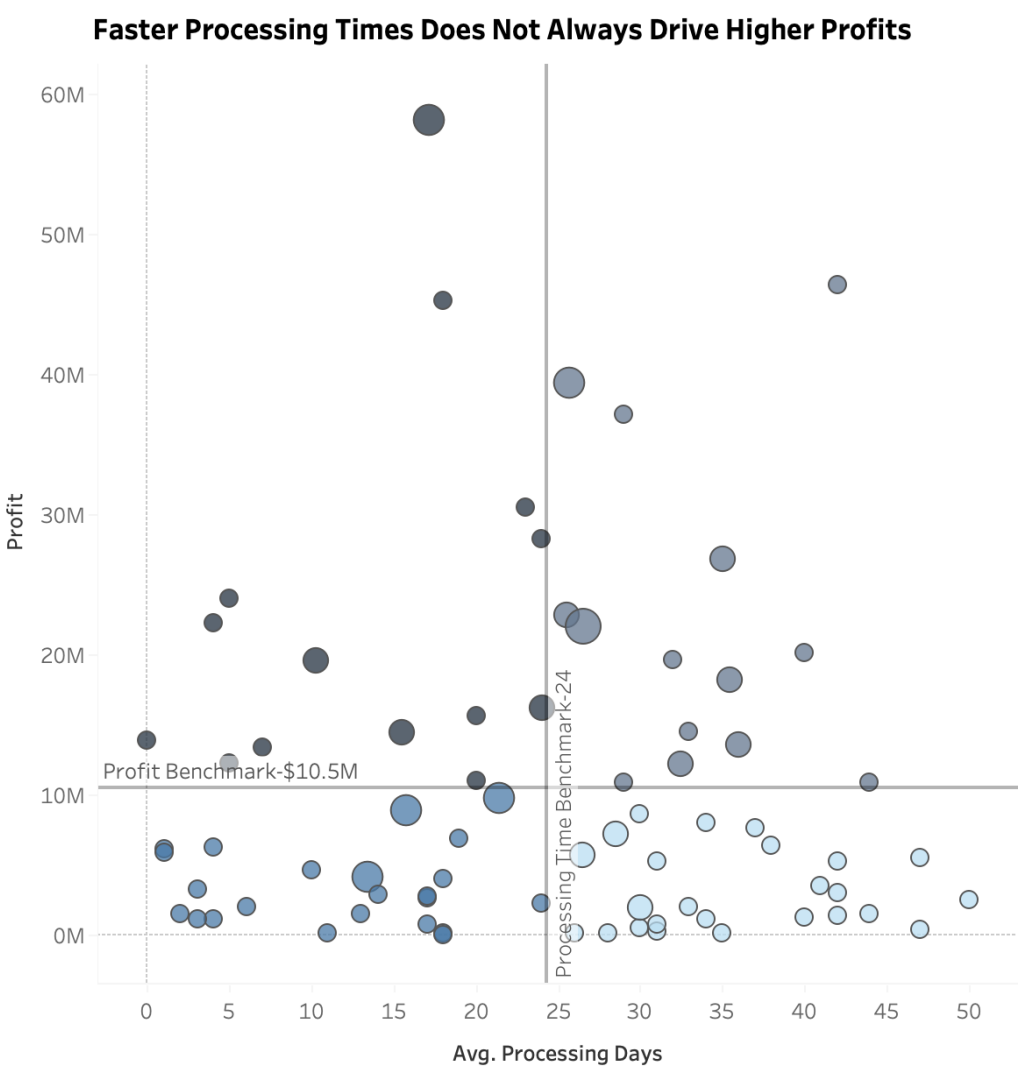
Speed vs. Profit: Is quick processing alway better?

WHY SCATTER PLOT?

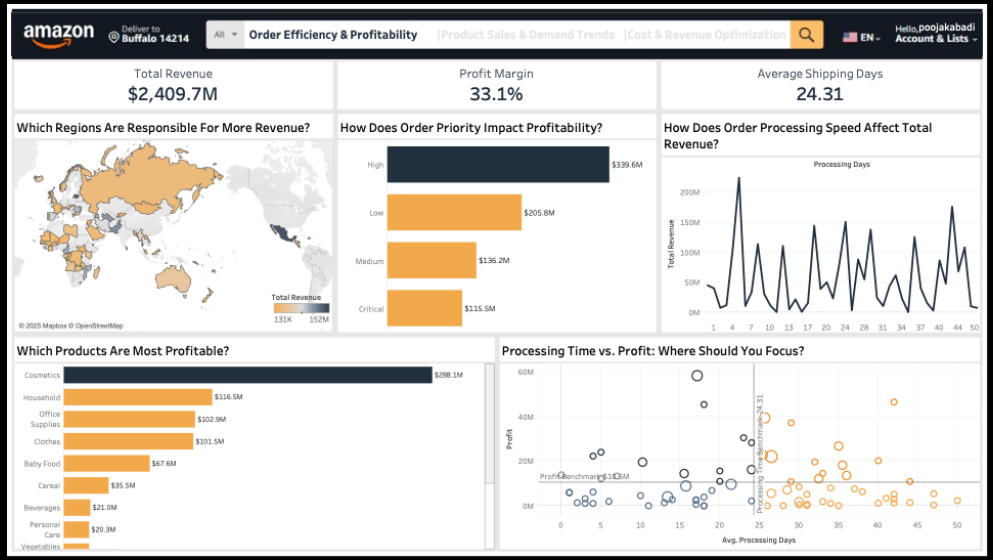
Best for Identifying Patterns & Correlations amongst variables

Data Principles in Action:

- **Quadrant-based segmentation highlights key trends**
- **Bubble size adds a third dimension (Order Volume)**
- **Benchmark lines provide a reference for analysis working as annotations**



DASHBOARD: BEFORE AND AFTER



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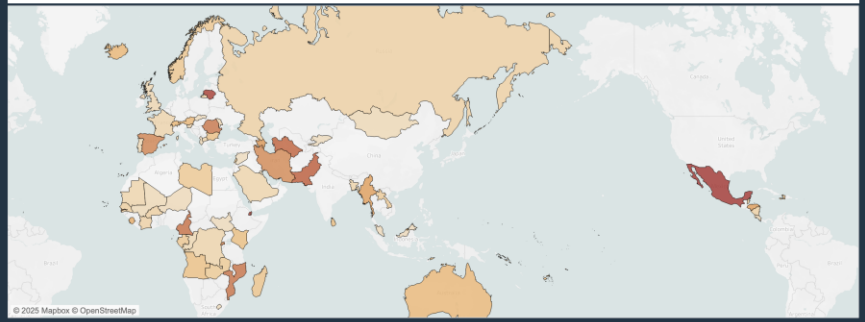
Key Revenue Drivers and Profitability Insights on Amazon Sales

Highlighting revenue distribution, sales trends, and operational efficiency for sales between 2010 and 2017 across 76 countries.

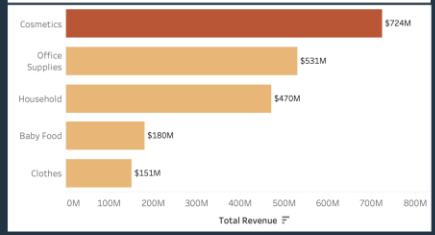
Summary of Metrics

Total Revenue	Profit Margin	Average Shipping Days
$2,409.7M	33.1%	24

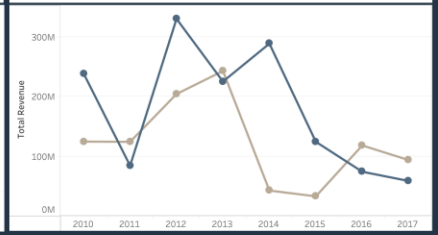
Mexico Ranks #1 in Total Revenue Contribution



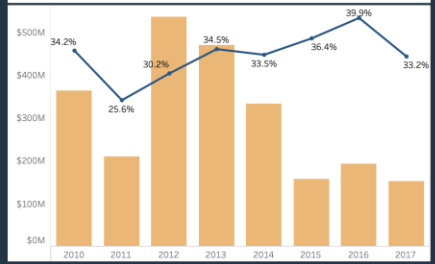
Cosmetics Sales Outperforms All Categories



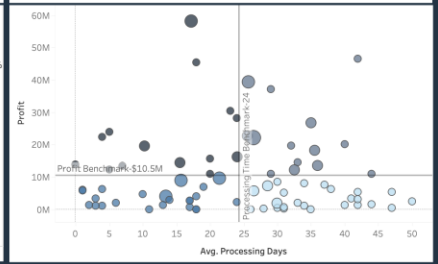
Offline Sales Dominated Until 2014, Followed by a Surge in Online Sales



Revenue Fluctuates, But Profit Margin Sustains post 2014



Faster Processing Times Does Not Always Drive Higher Profits



Data source: Amazon Sales - Kaggle

Data Viz-ards (Group 5)

THE INSIGHTS

WHERE

WHAT

HOW

- **Mexico: #1 Revenue Contributor**
- **Strategise around high performing categories (Cosmetics)**
- **Refine digital strategies, and optimize online sales channels**

THE INSIGHTS

WHAT IS WORKING?

- Profit margins stayed strong post-2014, proving effective cost and pricing strategies.

INSIGHT OR INSTINCT?

- Efficiency over speed: Prioritize pricing, demand, and cost control for sustainable profitability.

Thank you