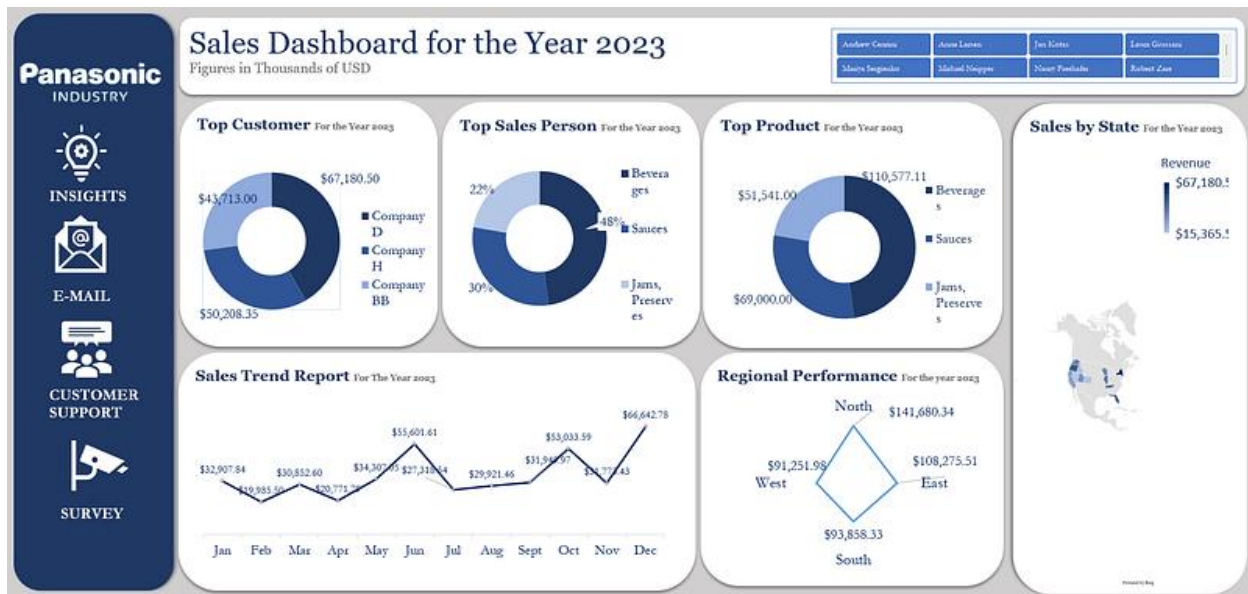**Panasonic Sales Dashboard: Visualizing Performance Across Products & Regions**

Introduction

The grocery, wholesale, and e-commerce industries depend heavily on efficient logistics, accurate pricing, and deep visibility into revenue drivers. Understanding how revenue is influenced by customer behavior, product categories, sales reps, shipping costs, and regional factors is essential for optimizing sales performance and operational efficiency.

This project provides a full sales intelligence dashboard built from transactional and operational data. It uncovers where revenue is coming from, which customers and cities drive the most growth, how product categories perform, and which sales reps contribute the most to business success.

The analysis also reveals patterns in seasonality, shipping fee impact, customer buying frequency, and overall sales distribution — helping the business make smarter decisions across marketing, logistics, and resource allocation.

Methodology

a. Data Collection

The dataset was downloaded from keggle and cleaned in microsoft excel

b. Data Cleaning
 • Removed duplicated customer entries
 • Standardized category names
 • Identified and corrected shipping fee anomalies
 • Handled missing delivery duration fields
 • Validated numerical columns for incorrect entries

c. Exploratory Data Analysis

Performed analysis around:
 • Regional revenue distribution
 • Customer purchase frequency
 • Product category performance
 • Salesperson performance
 • Shipping cost behavior
 • Payment preferences
 • City-level sales contributions
 • Monthly revenue trend

d. Visualization & Dashboarding

Visualized using Microsoft excel:
 • Bar charts for top products and customers
 • Revenue trend line chart
 • Pie charts for product category contributions
 • Heatmaps for regional and city performance
 • Scatter plots for shipping cost vs revenue
 • KPIs for total revenue, shipping cost, avg delivery time

Data Breakdown

Independent variables
 • Customer name
 • Ship address
 • Ship city
 • Ship country
 • Product name
 • Salesperson
 • Region
 • Payment type
 • Category

Dependent variables
 • Revenue
 • Unit price
 • Quantity
 • Shipping fee

Additional computed KPIs
 • Profit
 • Delivery duration
 • Customer lifetime value

Story of the Data

This dataset highlights the movement of products, revenue, and shipping expenses across multiple regions and customers. It shows:

- How shipping costs change across addresses
- Which regions are expensive to serve
- Whether product pricing aligns with buying patterns
- Which product categories generate the most sales
- How customer buying behavior shifts across seasons

Ultimately, the data reveals how logistics, pricing decisions, and product strategy influence growth and operational efficiency.

Stakeholders
1. Product Managers — track category performance and optimize inventory
2. Sales & Revenue Analysts — monitor revenue drivers and customer patterns
3. Marketing Team — refine regional, seasonal, and customer-based campaigns

What Success Means in This Industry
- Higher revenue
- Better cost efficiency
- Smooth logistics and deliveries
- Satisfied loyal customers
- Strong category performance
- Sales teams hitting targets

Key Analysis & Observations

Below is a structured breakdown of all insights derived from your dashboard.

A. Sales by Representative

Observations
- Top performer: Nancy Freehafer — $104,252.34
- Lowest performer: Jan Kotas — $16,350.50

Insights
- Nancy's strategies should be documented and replicated.
- Jan should not be suspended — instead:
- Enroll him in a sales & marketing improvement program
- Pair him with top performers
- Introduce performance bonuses to increase motivation.

B. Top Customers by Revenue

Insights
- Introduce loyalty tiers and exclusive discounts for high-value customers.
- Document sales strategies that worked with top customers.
- Cross-sell premium products (Product B, etc.) to them.
- Promote products they buy most to other customer segments.

C. Sales by Region

Observations
- Northern Region = Highest revenue: $141,680.34
- Western Region = Lowest: $91,251.98

Insights
- Apply Northern sales strategies to the Western region.
- Re-evaluate product mix for Western customers.
- Transfer a top Northern salesperson to help boost Western results.
- Direct marketing spend toward high-return regions.

D. Monthly Sales Trend

Observations
- December = highest revenue
- February = lowest
- Sharp decline observed right after June.

Insights
- Focus campaigns around December (holiday peak).
- Launch January "New Year Discounts" to lift revenue.
- Start autumn campaigns in late September.
- Increase stock levels before December.

E. Sales by Product Category

Observations
- Beverages = top category — $110,557.11
- Shipping fee error found around one blank category entry.
- Sauces came second.
- Canned meat = lowest performing category.

Insights
- Bundle sauces with pasta/rice to push sales.
- Launch monthly beverage subscription programs.
- Promote dried fruits as health options.
- Fix shipping fee data errors promptly.

F. Transaction Amount Distribution

Observations
- Most sales fall within the $0–$1,000 range.

Insights
- Offer freebies for purchases between $700–$1,000 to increase cart size.
- Launch VIP perks to encourage big-ticket purchases.
- Review pricing strategy for mid-tier products.

G. Performance by State

Observations
- Best state: New York — $67,180.50
- Lowest: Nevada — $15,365.50

Insights
- Replicate NY strategies across underperforming states.
- Move high-demand goods toward NY to boost revenue.
- Study pricing differences between NY and Nevada.
- Train Nevada teams using NY best practices.

H. Top Cities by Revenue

Insights
- Implement loyalty rewards in high-performing cities.
- Improve delivery speed for customer retention.
- Partner with local influencers for brand awareness.
- Expand product variety based on city preferences.

Detailed Salesperson Profiles & Insights

Andrew Cencini — Eastern Region
- Best months: June & December
- Top city: New York
- Best customer: Customer D
- Best products: jams & preservatives

Recommendations:
- Strengthen New York promotions ahead of peak months.
- Offer loyalty perks to Customer D.
- Push seasonal campaigns around June and December.

Anne Larson — Western Region
- Best month: December
- Top cities: Miami & Memphis
- Best customers: BB, Z, K
- Top product: beverages

Recommendations:
- Launch holiday beverage promotions (Nov–Jan).
- Reward repeat customers with loyalty benefits.
- Introduce limited-edition beverages.

Jan Kotas — Western Region
- Best month: June
- Top city: Denver
- Top customer: Company CC
- Top products: beverages, fruits & vegetables

Recommendations:
- Repeat June strategy from May–August.
- Bundle beverages + fruits & vegetables for larger orders.
- Target Denver heavily with ads.

Michael Neipper — Northern Region
- Best month: October
- Top city: Milwaukee
- Top product: beverages
- Top customer: Company F

Recommendations:
- Promote beverages Sep–Nov.
- Give Company F exclusive loyalty offers.

Nancy Freehafer — Northern Region
- Top cities: Portland, Seattle, Boise
- Top product: beverages
- Top customers: H, A, G

Recommendations:
- Build a beverage-focused loyalty program.
- Introduce new beverage types.
- Strengthen presence in her top cities.

Laura Giyssani — Eastern Region
- Best month: June
- Top city: Chicago
- Top products: condiments
- Top customers: J, Y

Recommendations:
- Repeat June strategy in March & September.
- Bundle condiments with sauces.
- Build stronger ties with Chicago distributors.

Mariya Sergienko — Western Region
- Best month: December
- Top cities: LA & Las Vegas
- Top products: sauces
- Top customers: C, L, AA

Recommendations:
- Extend holiday promotions into January.
- Launch premium "Chef's Sauce Collection."
- Join local food fairs & events.

Robert Zare — Western Region
 • Best month: October
 • Top city: Salt Lake City
 • Top product: dairy
 • Top customer: Company I

Recommendations:
 • Repeat October dairy promotions in off-peak months.
 • Bundle dairy with baked goods for Company I.

General Patterns Across All Sales Reps
 • Sales spike in June, October, December.
 • Beverages dominate sales for nearly half of the team.
 • Jams, sauces, condiments, dairy, and fruits & vegetables also show strong performance.
 • Seasonality heavily affects revenue.

Recommendations (Across the Organization)

1. Strengthen Seasonal Campaigns

Focus heavily on the high-revenue months:
 • June
 • October
 • December

2. Expand Loyalty Programs

Reward:
 • High-value customers
 • Frequent buyers
 • City hotspots

3. Improve Product Bundling

Bundle high-demand categories:
 • Sauces + rice/pasta
 • Dairy + bakery items
 • Beverages + snacks

4. Region-Specific Marketing
 • Northern strategies → Western states
 • Boost ads in New York, Miami, Portland
 • Tailor products for Nevada & other low-performing areas

5. Optimize Shipping Costs
 • Identify expensive ship cities
 • Negotiate better rates
 • Adjust delivery pricing by region

6. Sales Rep Training & Incentives
 • Provide monthly bonuses
 • Improve skills for low performers
 • Document winning techniques

Conclusion

This dashboard provides a comprehensive view of customer behavior, regional performance, product category strength, seasonality patterns, and shipping cost impact in the grocery/e-commerce/wholesale sector.

With these insights, the business can:
 • Increase revenue
 • Improve operational efficiency
 • Strengthen customer loyalty
 • Optimize supply chain decisions
 • Enhance sales team effectiveness

This project demonstrates the power of data analytics in transforming raw transactional data into clear, actionable business intelligence.