Power BI Report Outline

Shipment & Sales Analytics Dashboard

Report Type:	Multi-Page Interactive Dashboard
Data Sources:	Shipments, Products, People, Locations, Calendar
Date Range:	January 2023 - October 2024
Total Records:	7,905 Shipments
Total Revenue:	$44.69M
Prepared:	February 10, 2026

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1. Executive Summary & Overview

Business Context

This Power BI report provides comprehensive analytics for a shipment and sales operation covering the period from January 2023 to October 2024. The dashboard enables stakeholders to monitor key performance indicators, identify trends, and make data-driven decisions across sales, products, geography, and personnel dimensions.

Key Business Metrics

Metric	Value	Description
Total Revenue	$44,692,389	Total sales amount across all shipments
Total Shipments	7,905	Number of completed and in-progress orders
Total Boxes Shipped	3,784,002	Total quantity of boxes shipped
Average Order Value	$5,654	Mean revenue per shipment
Delivery Rate	80.4%	6,356 delivered out of 7,905 total shipments
Number of Products	22	Distinct products in catalog
Number of Salespeople	25	Active sales representatives
Geographic Regions	3	APAC, Americas, Europe

Top Insights

- APAC region drives 52.8% of total revenue ($23.6M)
- Bars category is the top-performing product category at 49.7% of revenue
- Top 5 products account for $16.7M (37.3% of total revenue)
- Peanut Butter Cubes is the best-selling product with $3.75M in revenue
- Barr Faughny is the top-performing salesperson with $3.66M in sales

2. Data Model & Relationships

Star Schema Design

The data model follows a star schema architecture with a central fact table (Shipments) connected to four dimension tables. This structure optimizes query performance and enables efficient filtering and aggregation.

Tables & Relationships

Table Type	Table Name	Primary Key	Relationship	Cardinality
Fact	Shipments	ShipmentID	-	7,905 rows
		SPID (FK)	→ People.SPID	Many-to-One
		PID (FK)	→ Products.PID	Many-to-One
		GID (FK)	→ Location.GID	Many-to-One
		Shipdate (FK)	→ Calendar.cal_date	Many-to-One
Dimension	Products	PID	-	22 rows
Dimension	People	SPID	-	25 rows
Dimension	Location	GID	-	6 rows
Dimension	Calendar	cal_date	-	670 rows

Key Columns by Table

- **Shipments (Fact Table):** ShipmentID, SPID, PID, GID, Shipdate, Amount, Boxes, Order_Status
- **Products:** PID, Product, Category, Cost_per_box
- **People:** SPID, Sales_person, Team, Picture
- **Location:** GID, Geo, Region
- **Calendar:** cal_date, Month_num, month_name, year, weekday_num, weekday_name

3. Page 1: Executive Dashboard

Page Purpose

High-level overview providing executives with key performance indicators and overall business health at a glance. This is the landing page of the report.

KPI Cards (Top Row)

KPI Name	Measure/Calculation	Format	Icon/Visual
Total Revenue	SUM(Shipments[Amount])	$44.69M	Currency icon
Total Boxes	SUM(Shipments[Boxes])	3.78M	Package icon
Total Shipments	COUNT(Shipments[ShipmentID])	7,905	Truck icon
Avg Order Value	AVERAGE(Shipments[Amount])	$5,654	Cart icon
Delivery Rate	DIVIDE(Delivered, Total Orders)	80.4%	Checkmark icon

Charts & Visualizations

Chart Type	Title	Axes/Fields	Purpose
Line Chart	Revenue Trend Over Time	X: Month/Year, Y: Revenue	Show revenue trends and seasonality
Clustered Column	Revenue by Region	X: Region, Y: Revenue	Compare regional performance
Donut Chart	Revenue by Category	Values: Revenue, Legend: Category	Product mix visualization
Stacked Bar	Order Status Distribution	Y: Status, X: Count	Pipeline health monitoring
Matrix	Region x Category Performance	Rows: Region, Columns: Category, Values: Revenue	Cross-dimensional analysis

Filters & Slicers

- Year slicer (2023, 2024)
- Region dropdown (All, APAC, Americas, Europe)
- Category dropdown (All, Bars, Bites, Other)
- Order Status dropdown (All, Delivered, Shipped, Placed, Cancelled)

4. Page 2: Sales Performance

Page Purpose

Deep dive into sales metrics, trends, and performance across different time periods and order statuses.

KPI Cards

KPI Name	Measure/Calculation	Format
YTD Revenue	TOTALYTD(SUM(Amount), Calendar[cal_date])	$XX.XXM
MTD Revenue	TOTALMTD(SUM(Amount), Calendar[cal_date])	$XX.XXM
Revenue vs Target	Revenue / Target (assume $50M)	XX%
YoY Growth	(This Year - Last Year) / Last Year	+XX%
Orders This Month	CALCULATE(COUNT(ShipmentID), DATESMTD(cal_date))	XXX

Charts & Visualizations

Chart Type	Title	Configuration	Insights
Area Chart	Monthly Revenue Trend	X: Month, Y: Revenue, Split by Year	Compare year-over-year performance
Combo Chart	Revenue & Boxes Over Time	X: Month, Y1: Revenue (Column), Y2: Boxes (Line)	Volume vs value relationship
Waterfall Chart	Revenue Breakdown	Categories: Region/Product/Status contributions	Understand revenue components
Gauge Chart	Revenue Target Achievement	Value: Actual Revenue, Target: $50M	Goal tracking
Table Visual	Monthly Summary	Columns: Month, Revenue, Boxes, Orders, AOV	Detailed monthly metrics

5. Page 3: Product Analysis

Page Purpose

Comprehensive analysis of product performance, profitability, and portfolio mix across categories and individual products.

KPI Cards

KPI Name	Measure/Calculation	Format
Total Products	DISTINCTCOUNT(Products[PID])	22
Top Product Revenue	MAX(Product Revenue)	$3.75M
Avg Product Revenue	Revenue / Product Count	$2.03M
Category Count	DISTINCTCOUNT(Category)	3
Revenue per Box	Total Revenue / Total Boxes	$11.81

Charts & Visualizations

Chart Type	Title	Configuration	Insights
Treemap	Revenue by Product	Values: Revenue, Group: Category > Product	Visual product portfolio
Clustered Bar	Top 10 Products by Revenue	Y: Product, X: Revenue, Sort: Descending	Best performers identification
Pie Chart	Category Revenue Mix	Values: Revenue, Legend: Category	Category contribution %
Scatter Plot	Price vs Volume Analysis	X: Boxes, Y: Revenue, Details: Product	Price/volume relationship
Matrix	Product Performance Grid	Rows: Product, Columns: Revenue, Boxes, AOV, Orders	Comprehensive metrics
Column Chart	Revenue by Category & Year	X: Category, Y: Revenue, Legend: Year	Category trends over time

Key Metrics Table

Include a detailed table visual showing: Product Name, Category, Total Revenue, Total Boxes, Number of Orders, Average Order Size, Cost per Box, Profit Margin (calculated), % of Total Revenue

6. Page 4: Geographic Analysis

Page Purpose

Regional performance analysis showing revenue distribution, market penetration, and geographic trends across APAC, Americas, and Europe regions.

KPI Cards

KPI Name	Measure/Calculation	Format
Total Regions	DISTINCTCOUNT(Location[Region])	3
Total Countries	DISTINCTCOUNT(Location[Geo])	6
Top Region Revenue	MAX(Region Revenue)	$23.60M (APAC)
Region Share (Top)	APAC Revenue / Total	52.8%
Avg Revenue per Country	Total Revenue / Country Count	$7.45M

Charts & Visualizations

Chart Type	Title	Configuration	Insights
Map Visual	Revenue by Geography	Location: Geo, Size: Revenue, Color: Region	Geographic distribution visualization
Clustered Column	Revenue by Region	X: Region, Y: Revenue, Sort: Descending	Regional comparison
Stacked Column	Region Revenue by Category	X: Region, Y: Revenue, Legend: Category	Product mix by region
Line Chart	Regional Trends Over Time	X: Month, Y: Revenue, Legend: Region	Regional growth patterns
Matrix	Region x Country Detail	Rows: Region > Geo, Values: Revenue, Boxes, Gradients	Hierarchical geographic view
Funnel Chart	Top Countries by Revenue	Values: Revenue, Category: Geo	Country ranking visualization

7. Page 5: Salesperson Performance

Page Purpose

Individual and team performance tracking, enabling sales management to identify top performers, coaching opportunities, and team dynamics.

KPI Cards

KPI Name	Measure/Calculation	Format
Total Salespeople	DISTINCTCOUNT(People[SPID])	25
Total Teams	DISTINCTCOUNT(People[Team])	4
Top Performer Revenue	MAX(Salesperson Revenue)	$3.66M
Avg Revenue per Person	Total Revenue / Salesperson Count	$1.79M
Top Team	Team with highest revenue	Team Name

Charts & Visualizations

Chart Type	Title	Configuration	Insights
Clustered Bar	Top 10 Salespeople by Revenue	Y: Sales_person, X: Revenue, Sort: Descending	Individual rankings
Column Chart	Revenue by Team	X: Team, Y: Revenue	Team performance comparison
Scatter Plot	Revenue vs Order Count	X: Order Count, Y: Revenue, Details: Salesperson	Efficiency analysis
Matrix	Salesperson Performance Grid	Rows: Team > Sales_person, Values: Revenue, Orders, AOV, Boxes	Hierarchical overview
Card with Image	Top Performer Spotlight	Show photo, name, revenue, orders	Recognition feature
Ribbon Chart	Team Rankings Over Time	X: Month, Y: Revenue, Legend: Team	Track team position changes

Interactive Features

- Salesperson slicer with search functionality
- Team filter for drill-down analysis
- Tooltip showing salesperson photo and detailed metrics on hover
- Drill-through to individual salesperson detail page

8. Page 6: Time Analysis & Trends

Page Purpose

Temporal analysis identifying seasonality, trends, patterns by day of week, month, quarter, and year to support forecasting and planning.

KPI Cards

KPI Name	Measure/Calculation	Format
Data Range	MIN & MAX dates	Jan 2023 - Oct 2024
Best Month Revenue	MAX(Monthly Revenue)	$X.XXM (Month)
Best Day of Week	Weekday with highest avg revenue	Weekday Name
YoY Growth 2024	(2024 - 2023) / 2023	+XX%
Current Quarter Revenue	TOTALQTD(SUM(Amount), cal_date)	$XX.XXM

Charts & Visualizations

Chart Type	Title	Configuration	Insights
Line Chart	Daily Revenue Trend	X: Date, Y: Revenue	Identify daily patterns
Column Chart	Revenue by Month	X: month_name, Y: Revenue, Legend: year	Monthly seasonality
Column Chart	Revenue by Day of Week	X: weekday_name, Y: Revenue	Weekly patterns
Line & Column	Year-over-Year Comparison	X: Month, Y: 2023 Revenue (Column), 2024 Revenue (Line)	YoY growth visualization
Heatmap Matrix	Revenue by Month x Year	Rows: year, Columns: month_name, Values: Revenue	Seasonal intensity map
Area Chart	Cumulative Revenue	X: Date, Y: Running Total Revenue	Growth trajectory

Time Intelligence Insights

- Quarter-over-quarter growth rates
- Same period last year comparisons
- Moving averages (7-day, 30-day, 90-day)
- Forecast based on historical trends (if applicable)

9. DAX Measures & Calculations

Essential DAX Measures

These calculated measures should be created in Power BI to enable advanced analytics and comparisons.

Measure Name	DAX Formula	Purpose
`Total Revenue`	SUM(Shipments[Amount])	Base revenue metric
`Total Boxes`	SUM(Shipments[Boxes])	Volume metric
`Total Orders`	COUNTROWS(Shipments)	Count of shipments
`Average Order Value`	DIVIDE([Total Revenue], [Total Orders])	AOV calculation
`Delivered Orders`	CALCULATE([Total Orders], Shipments[Order_Status] = "Delivered")	Successful deliveries
`Delivery Rate`	DIVIDE([Delivered Orders], [Total Orders])	Success rate %
`YTD Revenue`	TOTALYTD([Total Revenue], Calendar[cal_date])	Year-to-date total
`PYTD Revenue`	CALCULATE([YTD Revenue], SAMEPERIODLASTYEAR(Calendar[cal_date]))	Prior year YTD
`YoY Growth`	DIVIDE([YTD Revenue] - [PYTD Revenue], [PYTD Revenue])	Year-over-year %
`Revenue per Box`	DIVIDE([Total Revenue], [Total Boxes])	Unit economics
`Total Cost`	SUMX(Shipments, Shipments[Boxes] * RELATED(Products[Cost_per_box]))	Total cost calculation
`Gross Profit`	[Total Revenue] - [Total Cost]	Profit calculation
`Profit Margin %`	DIVIDE([Gross Profit], [Total Revenue])	Margin percentage
`Avg Boxes per Order`	DIVIDE([Total Boxes], [Total Orders])	Order size metric

Advanced Time Intelligence Measures

Measure Name	DAX Formula
`MTD Revenue`	TOTALMTD([Total Revenue], Calendar[cal_date])
`QTD Revenue`	TOTALQTD([Total Revenue], Calendar[cal_date])
`Rolling 3M Revenue`	CALCULATE([Total Revenue], DATESINPERIOD(Calendar[cal_date], LASTDATE(Calendar[cal_date]), -3, MONTH))
`Same Month Last Year`	CALCULATE([Total Revenue], SAMEPERIODLASTYEAR(Calendar[cal_date]))
`Moving Average 30D`	AVERAGEX(DATESINPERIOD(Calendar[cal_date], LASTDATE(Calendar[cal_date]), -30, DAY), [Total Revenue])

10. Filters & Slicers Configuration

Report-Level Filters

Filters that apply across all pages of the report:

- Year (Calendar[year]): Checkbox or dropdown style
- Order Status (Shipments[Order_Status]): Multi-select for analysis flexibility

Page-Specific Slicers

Page	Recommended Slicers	Style
Executive Dashboard	Region, Category, Year	Dropdown
Sales Performance	Month, Quarter, Year, Order Status	Buttons/Dropdown
Product Analysis	Category, Product (with search), Cost Range	List/Dropdown
Geographic Analysis	Region, Country, Year	Dropdown/Buttons
Salesperson Performance	Salesperson (search), Team, Region	List with search
Time Analysis	Year, Quarter, Month, Day of Week	Buttons

Slicer Best Practices

- Use sync slicers for Year and Region across multiple pages for consistent filtering
- Enable 'Select All' option for multi-select slicers
- Add search functionality to slicers with many values (e.g., Salesperson)
- Position slicers consistently in the same location across pages (typically top or left panel)
- Use slicer panel or bookmark feature to show/hide filters for cleaner layout
- Consider relative date slicers (Last 30 Days, Last Quarter, etc.) for time analysis
- Use visual-level filters for page-specific drill-downs without cluttering the interface

Additional Interactivity Features

- Cross-filtering: Enable charts to filter each other when clicked
- Drill-through pages: Create detail pages for Product, Salesperson, and Region deep-dives
- Bookmarks: Create saved views for different analysis scenarios
- Tooltips: Custom tooltips showing additional context on hover
- Buttons: Navigation buttons to move between pages
- Clear filters button: Reset all filters with one click

Appendix: Implementation Notes

Data Refresh Strategy

- Set up scheduled refresh in Power BI Service (daily recommended)
- Use incremental refresh for the Shipments table as data grows
- Ensure Calendar table covers future dates for forecasting
- Verify data quality and completeness before each refresh

Performance Optimization

- Import mode recommended for this data volume
- Create aggregation tables for large fact tables if performance degrades
- Use SUMMARIZE or SUMMARIZECOLUMNS for complex calculations
- Minimize use of calculated columns; prefer measures
- Remove unused columns from data model
- Optimize DAX using variables and avoiding multiple CALCULATE iterations

Design & Formatting Guidelines

- Use consistent color scheme aligned with corporate branding
- Limit color palette to 3-5 main colors for clarity
- Ensure sufficient white space between visuals
- Use conditional formatting to highlight key metrics (e.g., negative growth in red)
- Add titles and descriptions to all visuals for context
- Test report on different screen sizes and devices
- Enable accessibility features (alt text, high contrast mode support)

Security & Sharing

- Implement Row-Level Security (RLS) if needed to restrict data by region or salesperson
- Create separate workspaces for development and production
- Use Power BI Apps for controlled distribution to end users
- Document data lineage and calculation logic for audit purposes
- Set appropriate permissions based on user roles

Report Prepared By: Data Analytics Team

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For questions or feedback, contact the BI team.