REPORT OVERVIEW

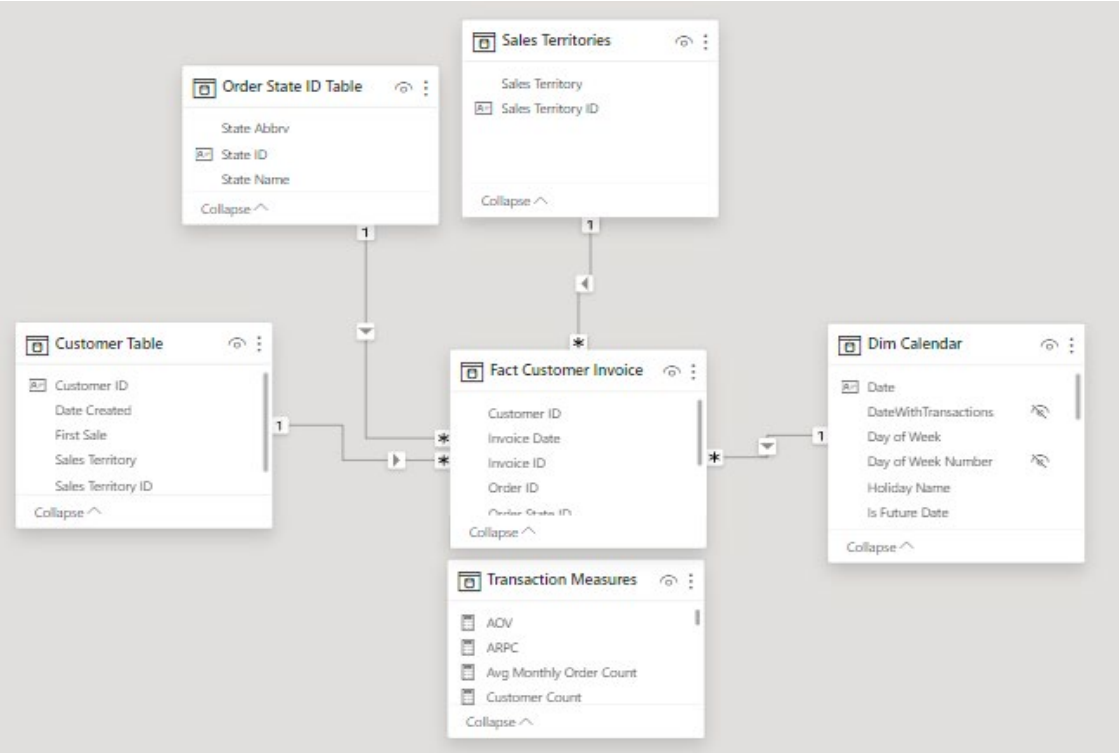
This collection of Power BI reports offers a detailed exploration of an organization's sales performance, furnishing stakeholders with invaluable insights to steer strategic initiatives. The foundation of this analytical framework lies in the meticulously crafted data model, which has been tailored to simulate business objectives.

Powered by sophisticated DAX Measures, this analysis delivers dynamic calculations that accurately depict key performance indicators, enabling stakeholders to assess sales efficacy, track trends, and pinpoint growth opportunities. These measures serve as the cornerstone of the analysis, providing real-time visibility into crucial sales performance metrics such as Average Order Value (AOV), Average Revenue Per Customer (ARPC), and time intelligence measures.

Furthermore, the inclusion of custom backgrounds on each page of the report enhances visual appeal and aids in the comprehension of intricate data sets. These tailored visuals not only elevate the aesthetic presentation but also facilitate ease of understanding, catering to both technical and non-technical audiences.

Through this comprehensive sales performance analysis, an organization is equipped to make data-driven decisions, refine strategies, and optimize business outcomes. From the intricacies of the data model to the meticulously crafted DAX Measures and visually compelling custom backgrounds, this Power BI solution underscores our dedication to excellence in analytics and informed decision-making.

DATA MODEL OVERVIEW



Model Structure:

- Star schema

Fact Table:

- Fact Customer Invoice

Dimension Table(s):

- Customer Table
- Order State ID Table
- Sales Territories
- Dim Calendar

Disconnected Table(s):

- Transaction Measures

YTD REVENUE REPORT

Year-over-Year (YoY) KPI Cards:

- YoYTD Order Count: Shows the total count of orders for the current year-to-date compared to the previous year's total at the same point in time, including the absolute and percentage changes.
- YoYTD Revenue: Similar to order count, this shows the revenue for the current year-to-date versus the previous year, with absolute and percentage differences.

Product Revenue Panels:

- Displays the revenue generated by each product (Product 1 to Product 4) for the current year-to-date.

Sales Territory Slicer:

- An interactive region selector showing different sales territories such as Midwest, South, Northeast, and West.
- Allows users to filter the data based on the Sales Territory assigned to the customer.

Card Visuals

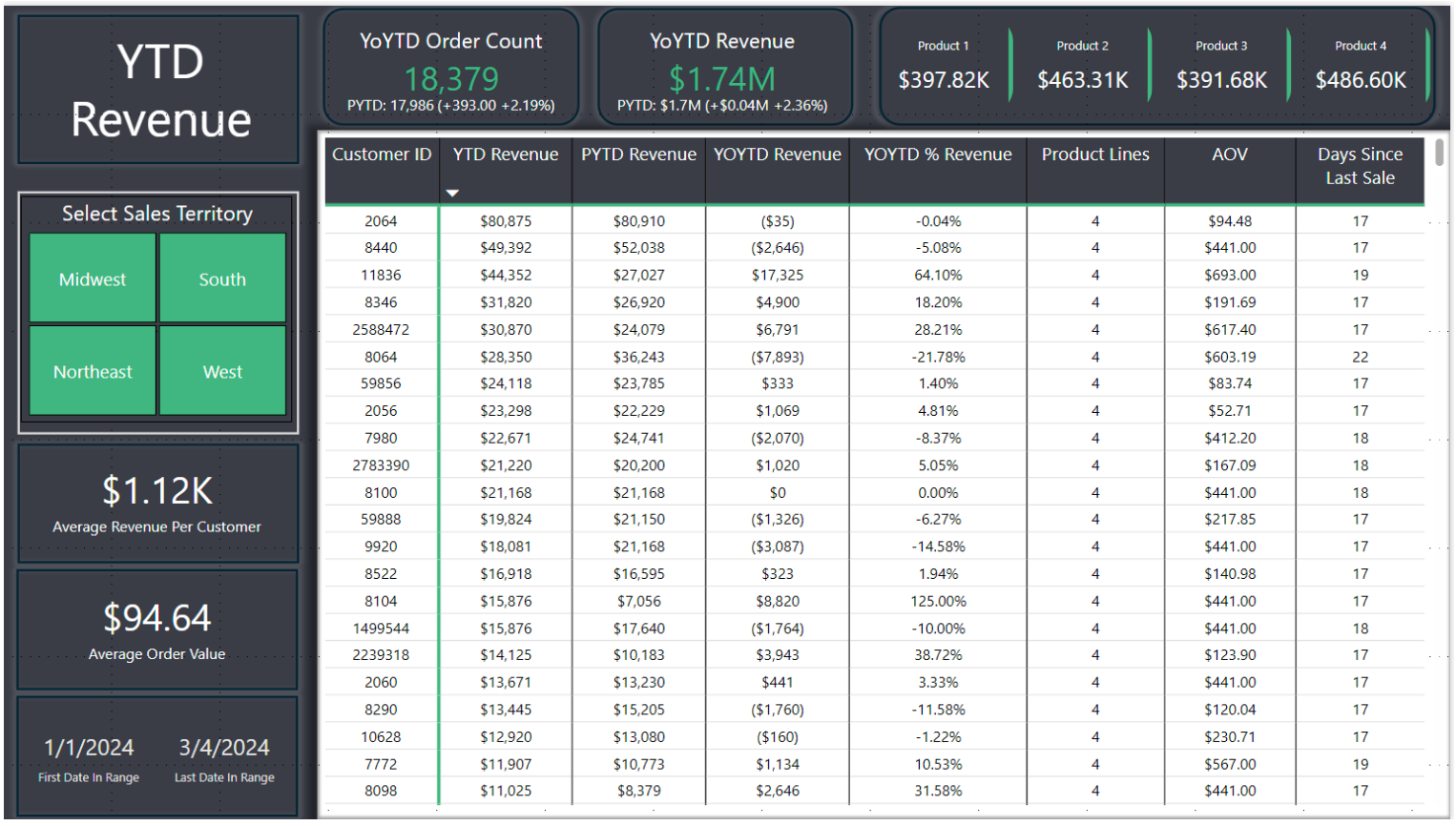
- Average Revenue Per Customer: The average revenue generated per customer for the year-to-date.
- Average Order Value (AOV): The average value of orders placed for the year-to-date.

Date Range:

- Two card visuals show users the date parameters of the data being displayed.

Tabular Data:

- Customer ID: Unique identifier for each customer.
- YTD Revenue: Revenue generated by each customer for the year-to-date.
- PYTD Revenue: Revenue for the previous year-to-date.
- YoYTD Revenue: The difference in revenue between the current and previous year-to-date.
- YoYTD % Revenue: The percentage difference in revenue YoYTD.
- Product Lines: The number of product lines purchased by the customer.
- AOV: The average order value for each customer.
- Days Since Last Sale: The number of days that have passed since the last sale for each customer.



Customer ID	YTD Revenue	PYTD Revenue	YOYTD Revenue	YOYTD % Revenue	Product Lines	AOV	Days Since Last Sale
2064	$80,875	$80,910	($35)	-0.04%	4	$94.48	17
8440	$49,392	$52,038	($2,646)	-5.08%	4	$441.00	17
11836	$44,352	$27,027	$17,325	64.10%	4	$693.00	19
8346	$31,820	$26,920	$4,900	18.20%	4	$191.69	17
2588472	$30,870	$24,079	$6,791	28.21%	4	$617.40	17
8064	$28,350	$36,243	($7,893)	-21.78%	4	$603.19	22
59856	$24,118	$23,785	$333	1.40%	4	$83.74	17
2056	$23,298	$22,229	$1,069	4.81%	4	$52.71	17
7980	$22,671	$24,741	($2,070)	-8.37%	4	$412.20	18
2783390	$21,220	$20,200	$1,020	5.05%	4	$167.09	18
8100	$21,168	$21,168	$0	0.00%	4	$441.00	18
59888	$19,824	$21,150	($1,326)	-6.27%	4	$217.85	17
9920	$18,081	$21,168	($3,087)	-14.58%	4	$441.00	17
8522	$16,918	$16,595	$323	1.94%	4	$140.98	17
8104	$15,876	$7,056	$8,820	125.00%	4	$441.00	17
1499544	$15,876	$17,640	($1,764)	-10.00%	4	$441.00	18
2239318	$14,125	$10,183	$3,943	38.72%	4	$123.90	17
2060	$13,671	$13,230	$441	3.33%	4	$441.00	17
8290	$13,445	$15,205	($1,760)	-11.58%	4	$120.04	17
10628	$12,920	$13,080	($160)	-1.22%	4	$230.71	17
7772	$11,907	$10,773	$1,134	10.53%	4	$567.00	19
8098	$11,025	$8,379	$2,646	31.58%	4	$441.00	17

SALES PERFORMANCE BY TERRITORY

Slicers:

- Sales Territory Slicer: Enables filtering by sales territories: Midwest, South, Northeast, West.
- Product Line Drop Down: Allows users to filter the data based on the product lines.
- Transaction Date: Users can filter transactions by date range.

Total Revenue Per Sales Territory – Line Chart:

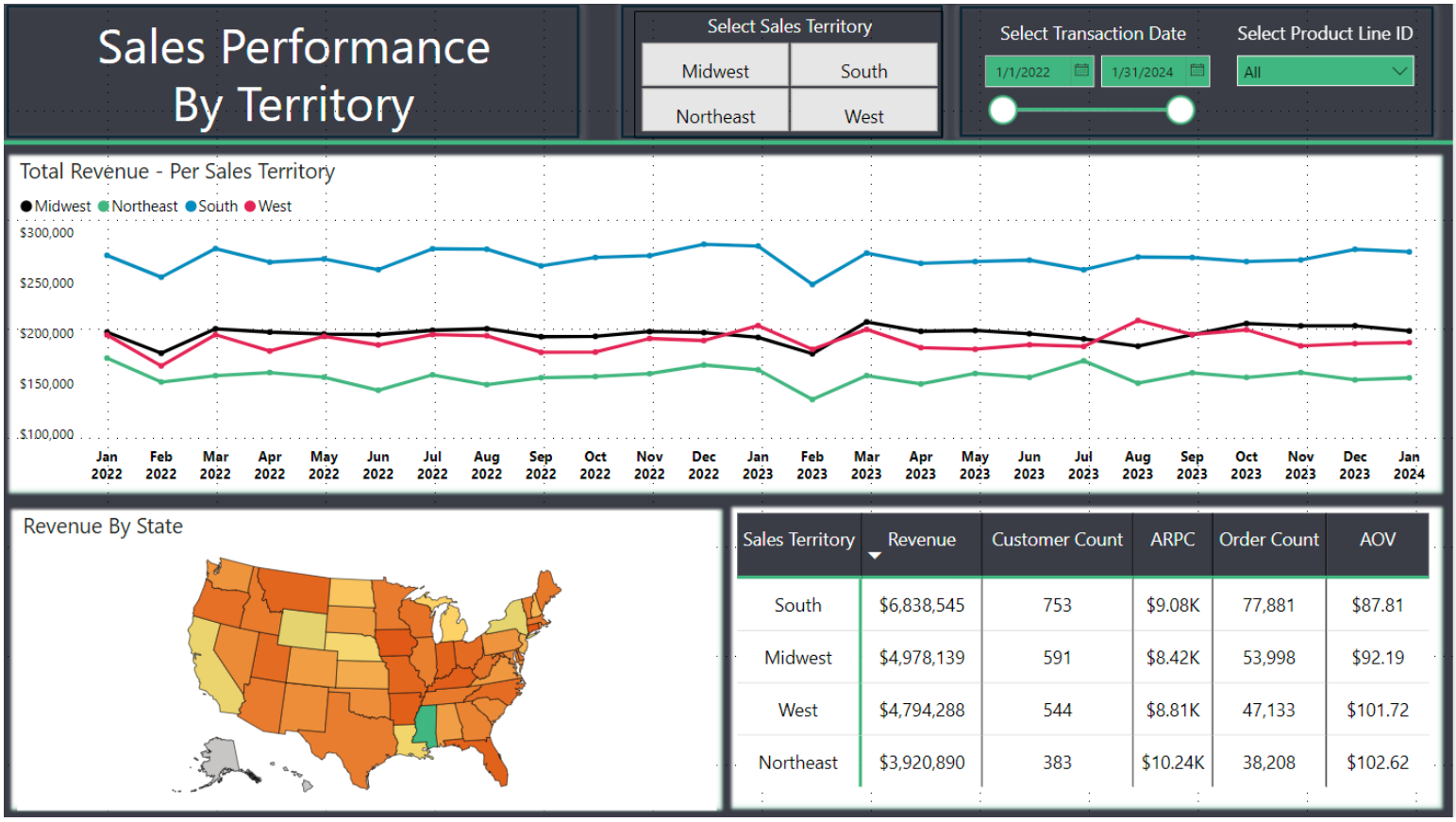
- Time series analysis of revenue across four sales territories via a multi-line chart.

Revenue By State - Geographic Map:

- A US map displaying revenue with color gradation for quick state-level comparisons.

Tabular Data:

- Sales Territory: Listed per data set.
- Revenue: Aggregate revenue for each territory.
- Customer Count: Number of unique customers with transactions.
- ARPC (Average Revenue Per Customer): Average revenue from invoiced customers.
- Order Count: Total transactions within the selected timeframe.
- AOV (Average Order Value): Revenue per transaction.



Sales Territory	Revenue	Customer Count	ARPC	Order Count	AOV
South	$6,838,545	753	$9.08K	77,881	$87.81
Midwest	$4,978,139	591	$8.42K	53,998	$92.19
West	$4,794,288	544	$8.81K	47,133	$101.72
Northeast	$3,920,890	383	$10.24K	38,208	$102.62

CUSTOMER ANALYSIS

Slicers:

- Date Range: Allows filtering by specific transaction dates.
- Customer Selection: Users can select individual customers to view performance.
- Product Line Filter: Users can filter the data by product lines.

Key Metrics:

- Total Revenue: The dashboard highlights the cumulative revenue from the customer.
- Avg Monthly Order Count: The average number of orders per month.
- Monthly Average Revenue: Average revenue generated per month.
- Average Order Value: The mean value of orders placed.

Total Revenue Trend Chart:

- A line graph displaying monthly revenue trends for a specific customer.
- The chart's subtitle is dynamic, and changes based on the selection from the Customer slicer on the left side.
    - When hovering over one of the month periods a tooltip appears and displays:
    - The highlighted month's revenue
    - The relative previous month's revenue
    - Month over month revenue delta
    - Month over month percent change.

Total Orders by Product Line:

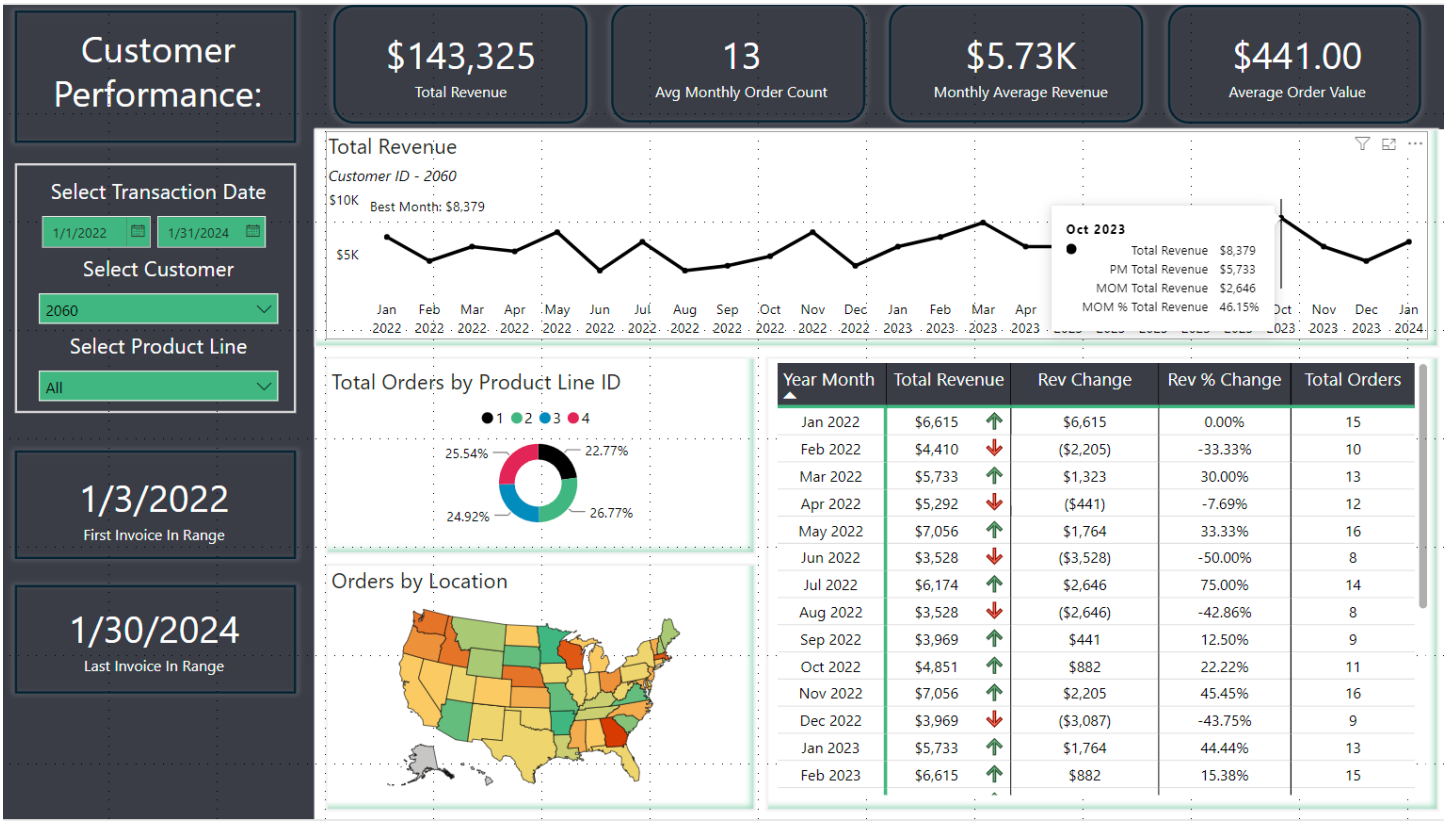
- A donut chart showing the percentage distribution of orders across different product lines.

Orders by Location Map:

- A US map with states color-coded according to the number of orders placed.

Revenue and Orders Table:

- Year Month: The month and year for the data.
- Total Revenue: Monthly revenue figures.
- Rev Change: The change in revenue compared to the previous month.
- Rev % Change: The percentage change in revenue month-over-month.
- Total Orders: The number of orders for each month.



DAX MEASURES

Below are some of the custom Data Analysis Expressions (DAX) measures that are driving the reports and allowing for adaptable and user friendly sales analysis.

```
AOV = COALESCE ( DIVIDE ( [Total Revenue], [Total Orders] ), 0 )
```

```
ARPC = COALESCE ( DIVIDE ( [Total Revenue], [Customer Count] ), 0 )
```

```
Avg Monthly Order Count = AVERAGEX ( VALUES ( 'Dim Calendar'[Year Month] ), [Total Orders] )
```

```
Customer Count = CALCULATE ( DISTINCTCOUNT ( 'Fact Customer Invoice'[Customer ID] ) )
```

```
Monthly Average Revenue =
AVERAGEX (
    VALUES ( 'Dim Calendar'[Year Month] ),
     CALCULATE ( SUM ( 'Fact Customer Invoice'[Revenue] ) ) )
```

```
Product Lines Ordered = COALESCE(CALCULATE(DISTINCTCOUNT('Fact Customer Invoice'[Product Line ID])),0)
```

```
Total Revenue = COALESCE(CALCULATE(SUM('Fact Customer Invoice'[Revenue])),0)
```

```
YTD Total Revenue = COALESCE(CALCULATE ([Total Revenue],DATESYTD ( 'Dim Calendar'[Date] )),0)
```

```
PM Total Revenue =
COALESCE(
    CALCULATE (
        [Total Revenue],
        CALCULATETABLE (
            DATEADD ( 'Dim Calendar'[Date], -1, MONTH ),
            'Dim Calendar'[DateWithTransactions] = TRUE
        )
    ),0
)
```

```
MOM Total Revenue =
VAR __ValueCurrentPeriod = [Total Revenue]
VAR __ValuePreviousPeriod = [PM Total Revenue]
VAR __Result =
    COALESCE (
        IF (
            NOT ISBLANK ( __ValueCurrentPeriod ) && NOT ISBLANK ( __ValuePreviousPeriod ),
            __ValueCurrentPeriod - __ValuePreviousPeriod
        ),
        0
    )
RETURN
    __Result
```

```
MOM % Total Revenue = COALESCE (DIVIDE ([MOM Total Revenue],[PM Total Revenue]),0)
```