

Details of Power BI Dashboard

KPIs

Added four main KPIs (Cards, not one) at the top of the dashboard for quick insights:

- **Total Sales** – Total revenue from all transactions.
- **Average Sales per Transaction** – Useful for understanding how much customers spend on average.
- **Electronics Sales** – Business logic here assuming electronics are the most sold at this company.
- **High-Value Transactions** – Counts orders above \$1000. This helps identify big spenders or premium buyers.

Charts & Tables

To break things down visually, we included:

- **Regional Sales Bar Chart** – Shows sales by region (North, South, East, West). Helps compare performance across geographies.
- **Monthly Sales Trend (Line Chart)** – Shows how sales trend over time, useful for spotting seasonality.
- **Top 5 Products Table** – Ranks products by total sales value. Displays product name, category, and revenue.

Filters

We added two slicers for interactivity:

- **Region** – Focus on specific markets.
- **Date** – Filter by month range for custom time analysis.

DAX Measures (How we did the calculations)

1. **Total Sales**
 2. `Total Sales = SUM(transactions[total_value])`
 3. **Average Sales Per Transaction**
 4. `Average Sales Per Transaction = AVERAGE(transactions[total_value])`
 5. **YTD Sales**
 6. `YTD Sales = TOTALYTD([Total Sales], transactions[date_std])`
 7. **High-Value Transactions**
 8. `High Value Transactions = COUNTROWS(FILTER(transactions, transactions[total_value] > 1000))`
 9. **Electronics Category Sales**
 10. `Electronics Sales = CALCULATE([Total Sales], products[category] = "Electronics")`
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Key Takeaways

- **Performance by Region** – Some regions are consistently stronger, which helps prioritize where to invest resources.
 - **Monthly Trends** – We see clear seasonality in sales, which can help with planning campaigns and managing stock.
 - **Top Products** – A small number of products generate most of the revenue. We can use this to focus marketing efforts or adjust inventory.
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Technical Notes

- The dashboard connects directly to MySQL
- We've handled nulls and data quality issues in the ETL layer before the data hits Power BI.
- Date formats are standardized to make sure time-based filtering and comparisons work as expected.
- Relationships between tables (transactions, products, customers) are set up correctly in the Power BI model to keep everything linked.