

Power BI Mobile Sales Dashboard – Detailed Project Documentation

1. Executive Summary

This project is a **solo, resume-focused Power BI dashboard** developed to analyze mobile sales data and present insights in a way that is **clear, structured, and useful for business decision-making**. The dashboard is designed for general business users and demonstrates how raw transactional data can be transformed into meaningful performance insights through effective data modeling, DAX, and interactive visuals.

The primary emphasis of this project is on **Month-to-Date (MTD)** analysis and **Same Period Last Year (SPLY)** comparisons, enabling stakeholders to quickly understand current performance relative to historical benchmarks.

2. Project Background and Purpose

In many organizations, sales data exists but is not utilized effectively due to:

- Lack of consolidated reporting
- Difficulty comparing current performance with past periods
- Over-reliance on static reports that limit exploration

The purpose of this project is to simulate a real-world business scenario where decision-makers need a **single, interactive dashboard** to monitor sales performance, identify trends, and drill into details without technical assistance.

3. Business Objective

The key objectives of this dashboard are to:

- Track overall sales performance using clearly defined KPIs
- Compare current Month-to-Date sales with the Same Period Last Year
- Identify top-performing brands, mobile models, and cities
- Understand customer behavior through payment methods and ratings
- Enable users to explore data dynamically using slicers and drill-through

4. Target Audience

This dashboard is primarily intended for:

- Recruiters and Hiring Managers evaluating analytical skills
- Business stakeholders such as sales managers and analysts
- Non-technical users who require intuitive and interactive reporting

The design balances **business readability** with **technical depth**.

5. Data Source and Overview

- **Data Source:** Kaggle
- **File Format:** Excel
- **Number of Records:** 3,868 rows
- **Nature of Data:** Sales transaction-level data
- **Time Coverage:** Multi-year historical data suitable for time-intelligence analysis

Key Data Attributes

- Transaction Date
- Brand and Mobile Model
- City
- Quantity Sold
- Sales Amount
- Payment Method
- Customer Rating

The dataset was reviewed for consistency, basic cleaning, and suitability for analytical reporting.

6. Data Preparation and Modeling

- Data was imported from Excel into Power BI
- A dedicated **Date Table** was created to support accurate time-intelligence calculations
- Relationships were structured in a clean, logical manner to support filtering and drill-through
- Measures were used instead of calculated columns wherever possible to improve performance and flexibility

This approach ensures the model is **scalable, readable, and business-friendly**.

7. DAX and Time Intelligence Logic

The analytical core of the project is built using DAX measures focused on business-relevant metrics.

Key Measures Implemented

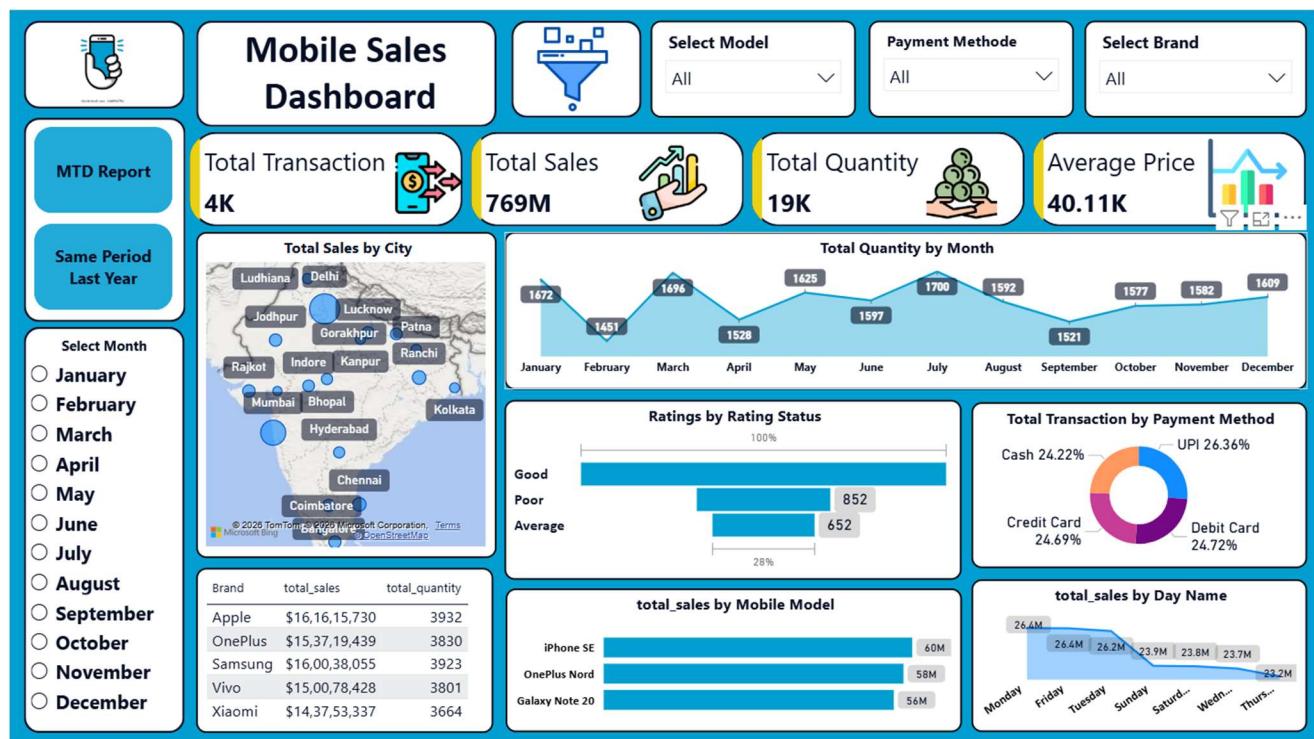
- Total Sales
- Total Quantity Sold
- Total Transactions
- Average Selling Price
- Month-to-Date (MTD) Sales
- Same Period Last Year (SPLY) Sales

These measures allow users to directly compare **current performance with historical performance**, which is critical for trend evaluation and decision-making.

8. Dashboard Design and Structure

The report consists of **three main pages**, each serving a distinct analytical purpose.

Page 1: Mobile Sales Overview



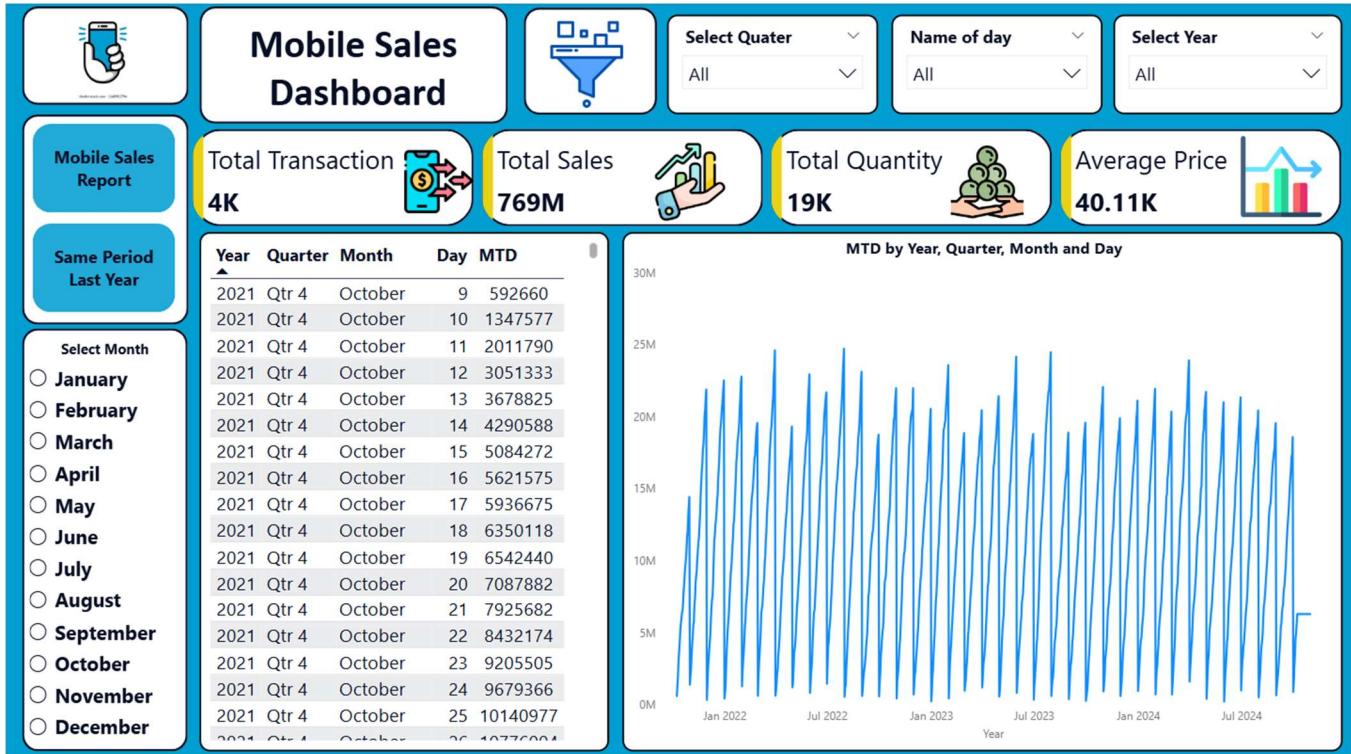
This page provides a high-level summary of sales performance: - Key KPIs such as Total Sales, Quantity, Transactions, and Average Price - Brand-wise and mobile model-wise performance analysis - City-wise sales distribution using map visuals - Payment method contribution to total sales

This page is designed for quick executive-level review.

Page 2: Month-to-Date (MTD) Performance Report

This page focuses on current-period performance: - Month-to-Date sales trends - Comparison with Same Period Last Year - Drill-through functionality to analyze specific brands or cities - Interactive slicers for date, brand, and city filtering

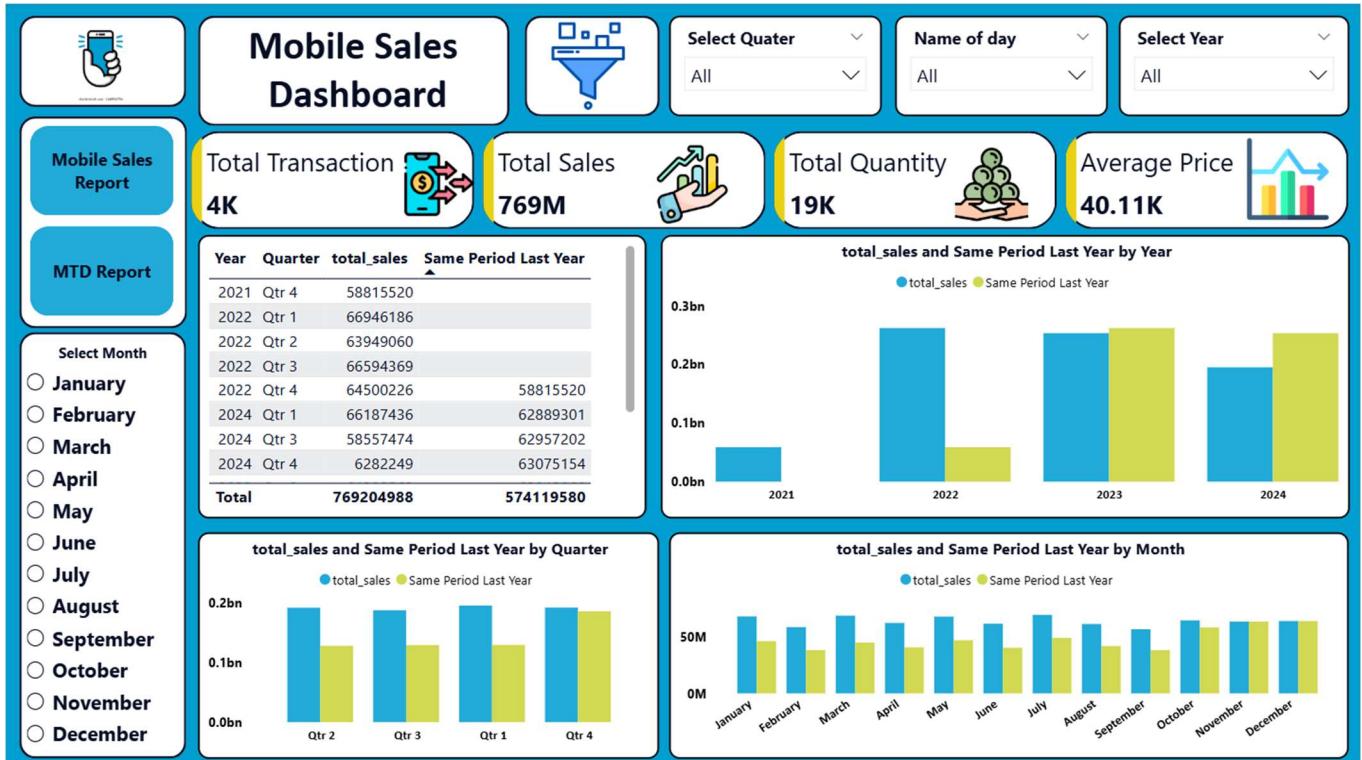
This enables users to investigate performance drivers in detail.



Page 3: Same Period Last Year Analysis

This page highlights historical performance: - Sales trends for the same time period in the previous year - Identification of growth or decline patterns - Analysis across months and weekdays

This supports year-over-year performance evaluation.



9. Key Insights and Observations

- Certain brands and mobile models consistently contribute a higher share of sales
 - Month-to-Date performance shows noticeable variation when compared with the previous year
 - Digital payment methods dominate transaction volume
 - Customer ratings vary by brand and model, indicating differences in customer satisfaction
 - Seasonal trends are visible across months and weekdays
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10. Business Value Delivered

This dashboard provides value by:

- Reducing manual reporting effort
- Enabling faster, data-driven decision-making
- Offering a clear comparison between current and historical performance
- Allowing stakeholders to explore data independently