Car Dealership Sales Performance Dashboard Report and Prediction Model

# 1. Introduction

* This dashboard presents a clear view of car dealership sales performance and a forward-looking prediction model, combining historical results with next‑month forecasts to support fast, confident decisions.
* Users can track core KPIs, spot trends and MoM shifts, compare top/bottom accounts, and assess expected outcomes under the forecast path—all in one place for planning inventory, staffing, and budgets.

# 2. Dashboard Overview

Dashboard overview

* This dashboard brings historical performance and short‑term forecasts together on a single canvas, enabling quick assessment of pace, risk, and opportunity for car‑dealership sales across months and accounts.

## 🔹 KPI Cards (Top Section)

* **Average Monthly Value:** Shows the typical monthly run rate, helping normalize performance across periods and giving an immediate sense of sales pace against recent history and plans.
* **Total Monthly Value:** Consolidates current filtered revenue to anchor all comparisons on the same basis before drilling into trends or segments.
* **Total Number of Account IDs:** Indicates breadth of active accounts, useful for coverage and concentration checks alongside Top/Bottom analyses.

## 🔹 Visuals

* **Monthly Value Trend across Years & Months:** A continuous line highlights level, slope, and turning points, allowing seasonality and sustained shifts to stand out clearly over 2022–2024.
* **MoM% Change across Months:** A rate‑of‑change view surfaces spikes and dips that may be masked in level charts, guiding where to investigate drivers or timing effects like promotions
* **Top 10 Performing Accounts:** A ranked bar chart concentrates attention on the biggest contributors, making it easy to prioritize expansion plays and relationship actions.
* **Bottom 10 Performing Accounts:** Mirrors the top view to reveal underperformance and recovery opportunities, supporting targeted remediation by account.
* **Top 10 vs Others composition:** The Pie Chart summarizes concentration by grouping different accounts, clarifying how much of the total sits outside the core accounts.
* **Accounts Table:** An interactive table lists account\_id with the summed monthly\_value for validation and deep dives; it supports sorting, cross filters, and exporting when needed.
* **MoM% Change Forecasted:** A projected rate‑of‑change series highlights volatility expected in upcoming months so inventory, staffing, and cash‑flow plans can be phased appropriately.
* **Forecast summary (Average Monthly Forecasted Value**): A smoothed forward KPI gives a stable signal for capacity and budget alignment without overreacting to single‑month noise.

# 3. Key Insights

* Sales pace is rising over time: the monthly value trend shows a steady climb from 2022 with higher peaks in late periods, indicating momentum recovery after earlier lows.
* Near term outlook is positive but uncertain: the forecast line trends upward with a visible confidence band, signaling expected growth alongside short term volatility to watch.
* Average monthly sales are strong: the “Average Monthly Value” card shows a healthy monthly run rate for recent periods.
* Some months are bumpy: the MoM% chart highlights spikes and drops, so those months need a quick check for causes like campaigns or supply issues. months for ex(Nov 2022,Oct 2024).
* A few accounts drive most sales: the Top‑10 vs Others chart shows a big share from a small set of accounts—focusing on them can lift results faster.
* Forecasted changes will be choppy: the projected MoM% line suggests some swings ahead—plan inventory and staffing in phases to stay safe.
* Sales climb faster after mid‑2023: the slope of the monthly trend steepens from mid‑2023 onward, showing stronger growth compared to prior periods.
* Some accounts need rescue plans: the Bottom 10 view highlights persistent underperformance—review pipeline, discounting, and local marketing for these.
* Action priority: focus on (1) top 5 accounts for expansion, (2) bottom 10 for quick fixes, and (3) months flagged by MoM spikes for campaign and supply adjustments.

# 4. Business Impact

- Dealerships can use this dashboard to plan inventory, manage workforce, and allocate budgets more effectively.  
- The forecasting model helps anticipate demand shifts, preventing over/under-stocking.  
- The Top 10 and Bottom 10 accounts indicate which relationships to focus on and to which needs improvement.

# 5. Conclusion

The Car Dealership Sales Dashboard provides a complete 360° view of dealership performance—blending past results with predictive insights. python-docx  
  
By leveraging this dashboard, dealership management can:  
- Make data-driven decisions.  
- Improve operational efficiency.  
- Align strategies with future sales opportunities.