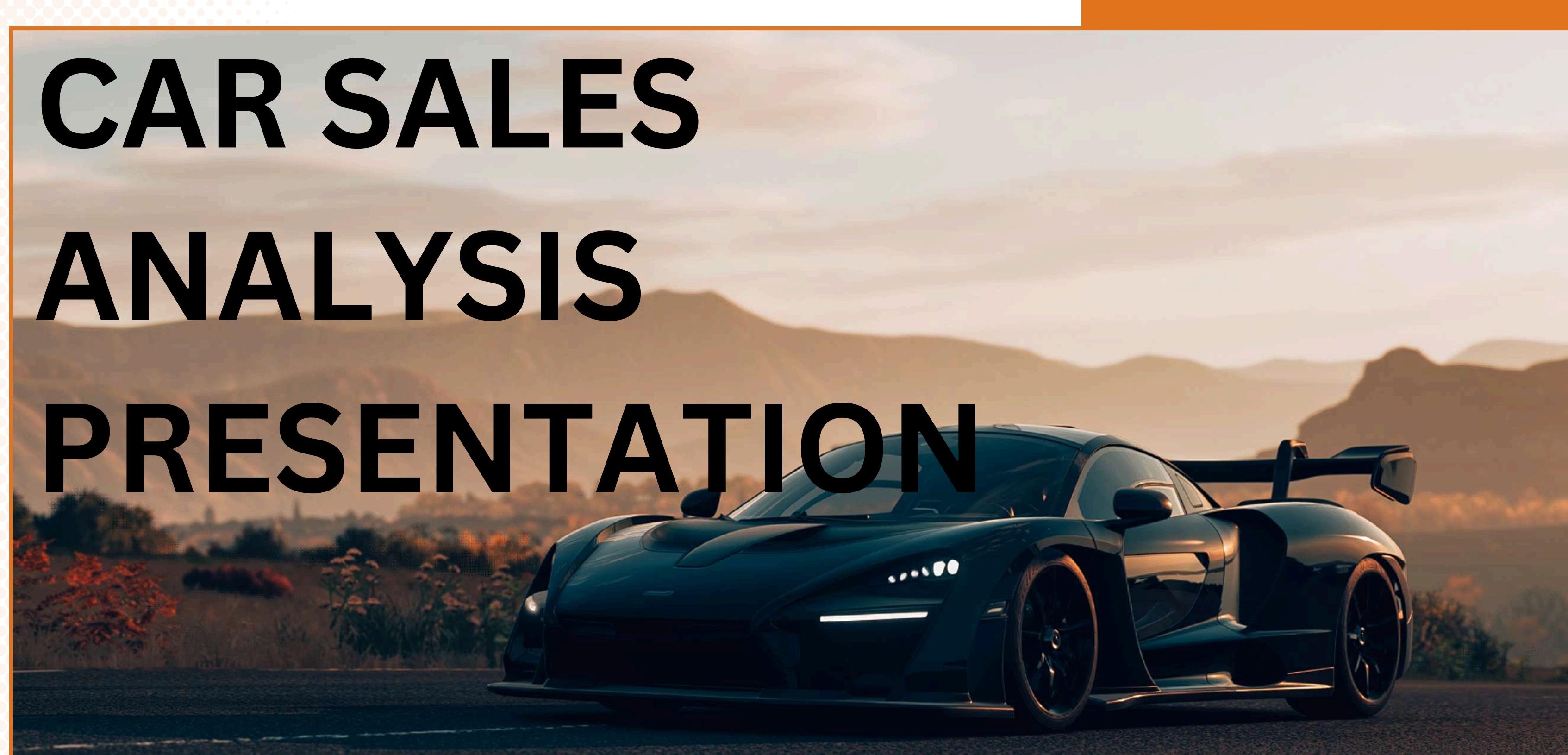


# CAR SALES ANALYSIS PRESENTATION



By Steve Adeniyi Baale





# Project Goals

To conduct an in-depth analysis of the automotive market to understand factors influencing vehicle selling prices and market trends.

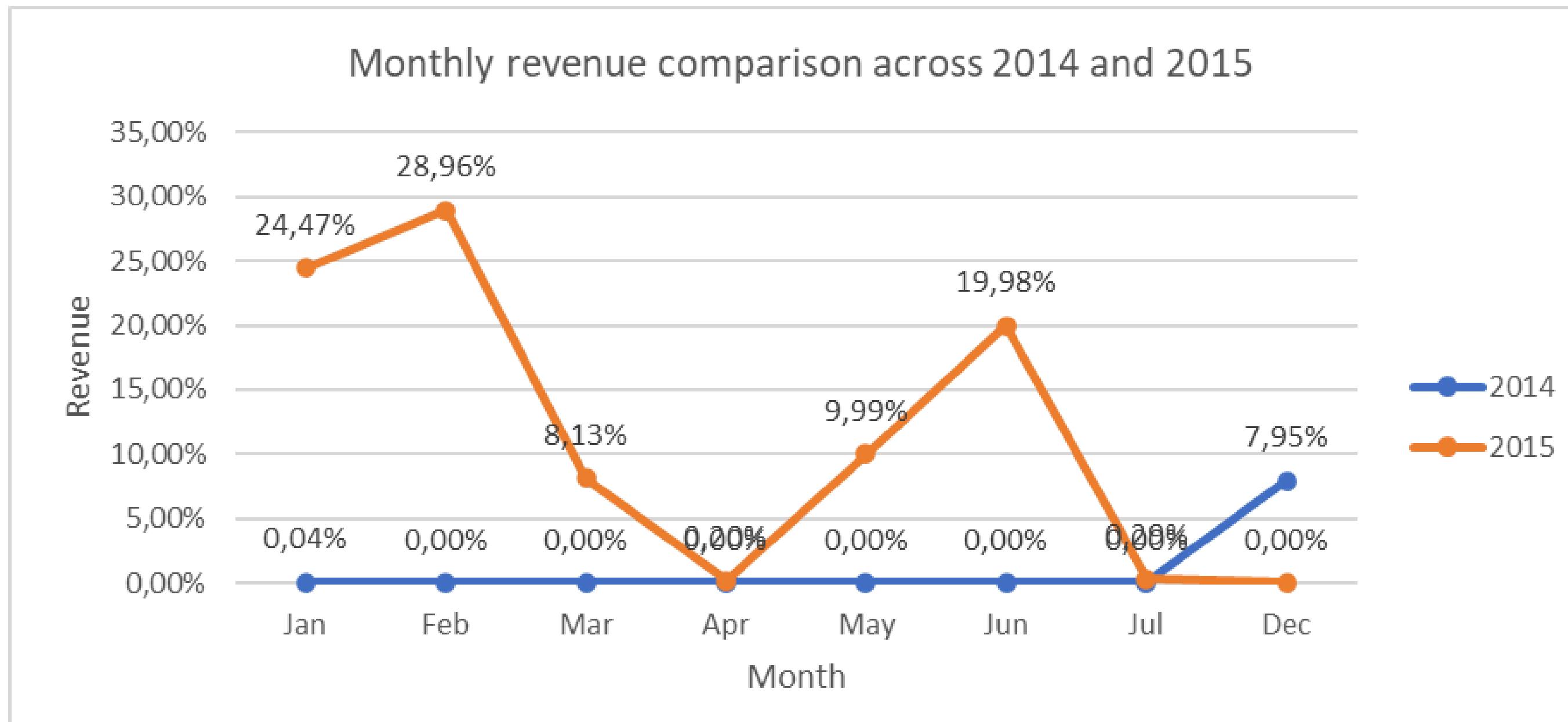
# Key Aims and Objectives



- **Exploratory Data Analysis (EDA):** Identify and analyse descriptive statistics and trends related to vehicle characteristics (year, make, model, trim, body type, transmission, colour)
- **Condition and Mileage Impact Analysis:** Determine the relationship between vehicle condition rating, odometer
- **Market Value Assessment:** Compare the Manheim Market Report (MMR) values (estimated market value) with the actual selling prices to analyse market fluctuations and pricing differences
- **Predictive Modelling:** Develop and evaluate a model to accurately predict a vehicle's selling price based on its various attributes.
- **Derive Business Insights:** Provide actionable insights for automotive professionals regarding consumer preferences, market demand, and effective pricing strategies.

# Data & Market Overview

## Monthly revenue across 2014 & 2015



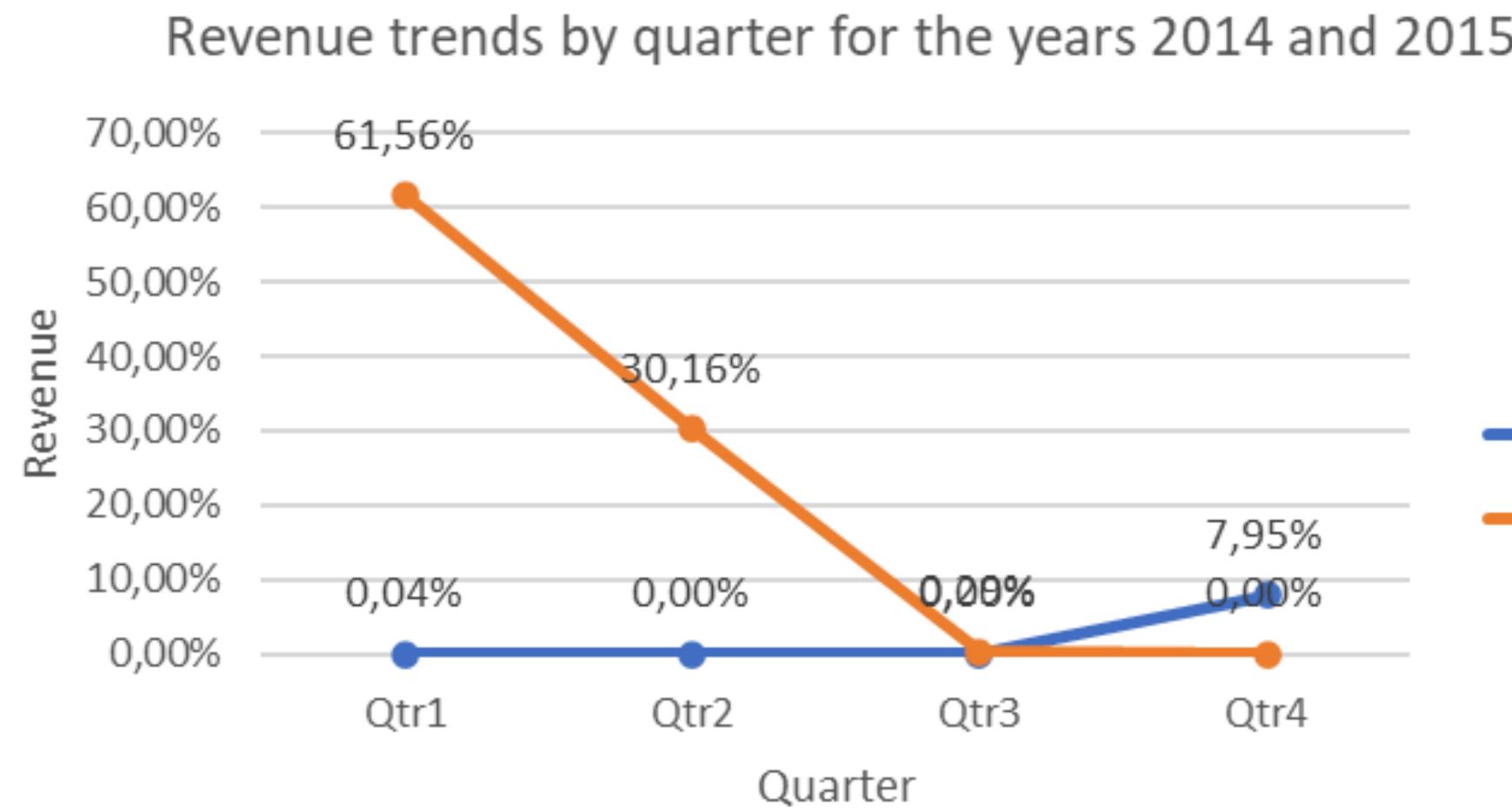
Insight:

Peak revenue in February 2015, achieving 28.96%. Conversely, the lowest revenue of 0.00% was recorded during the four months of March, April, May, and June 2014.



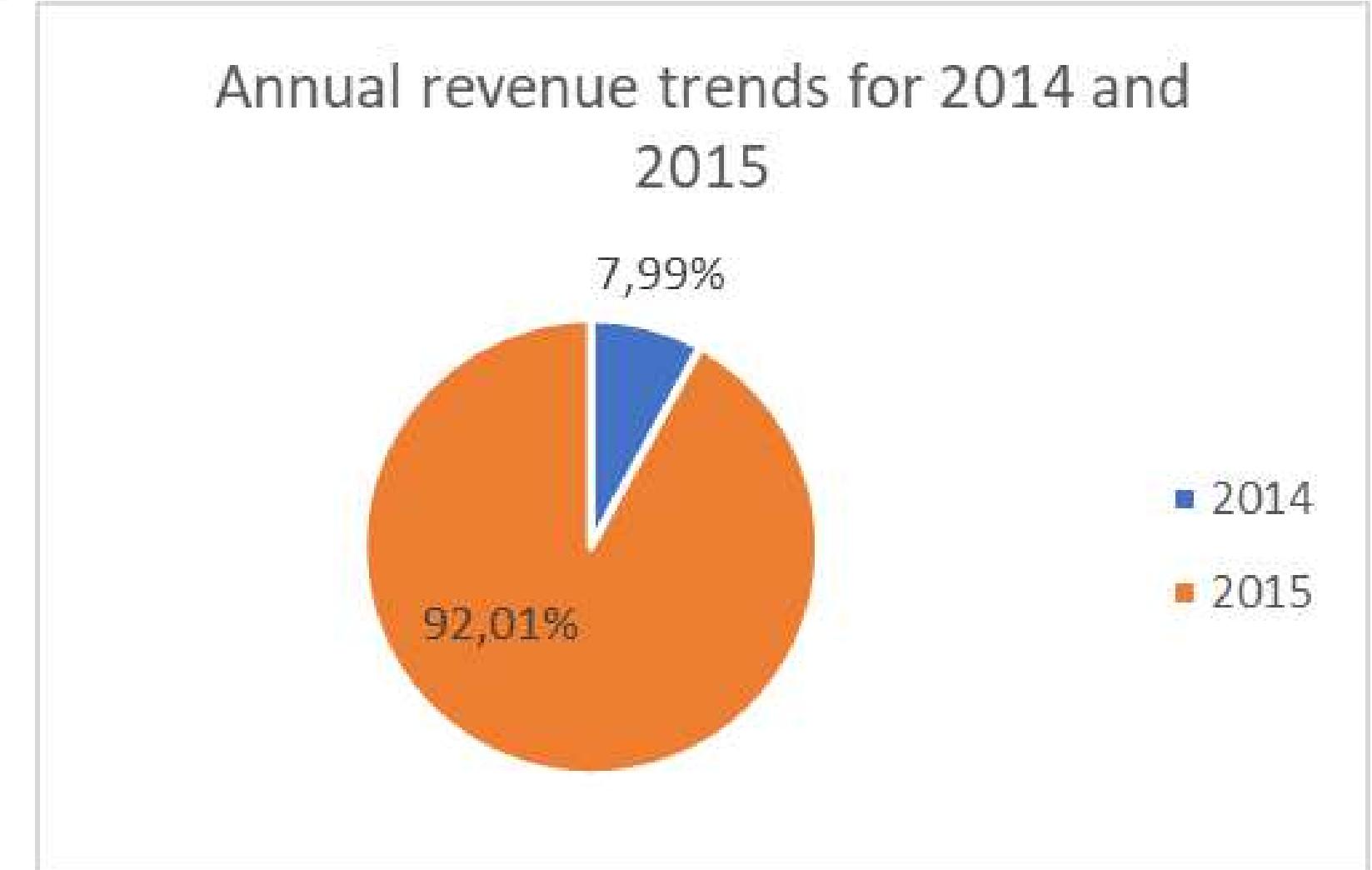
# Data & Market Overview

## Quarterly and Yearly Revenue across 2014 & 2015



### Insight:

Peak quarterly revenue was recorded in Q1 2015 at 61.56%, starkly contrasting with Q2, Q3, and Q4 of 2014, which all registered 0.00% revenue.



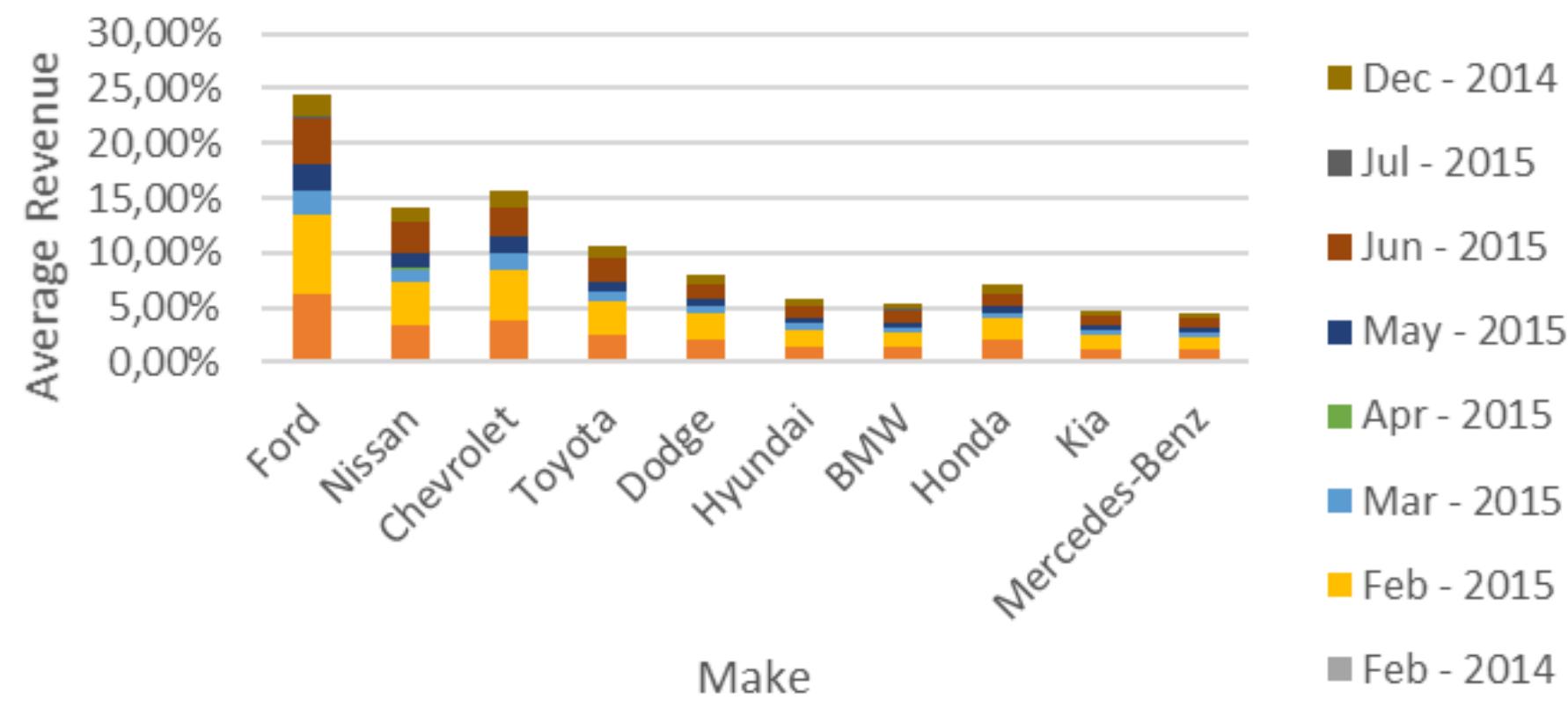
### Insight:

The majority of the revenue was generated in 2015 (92.01%), with 2014 accounting for the remaining, and lowest, share of 7.99%.

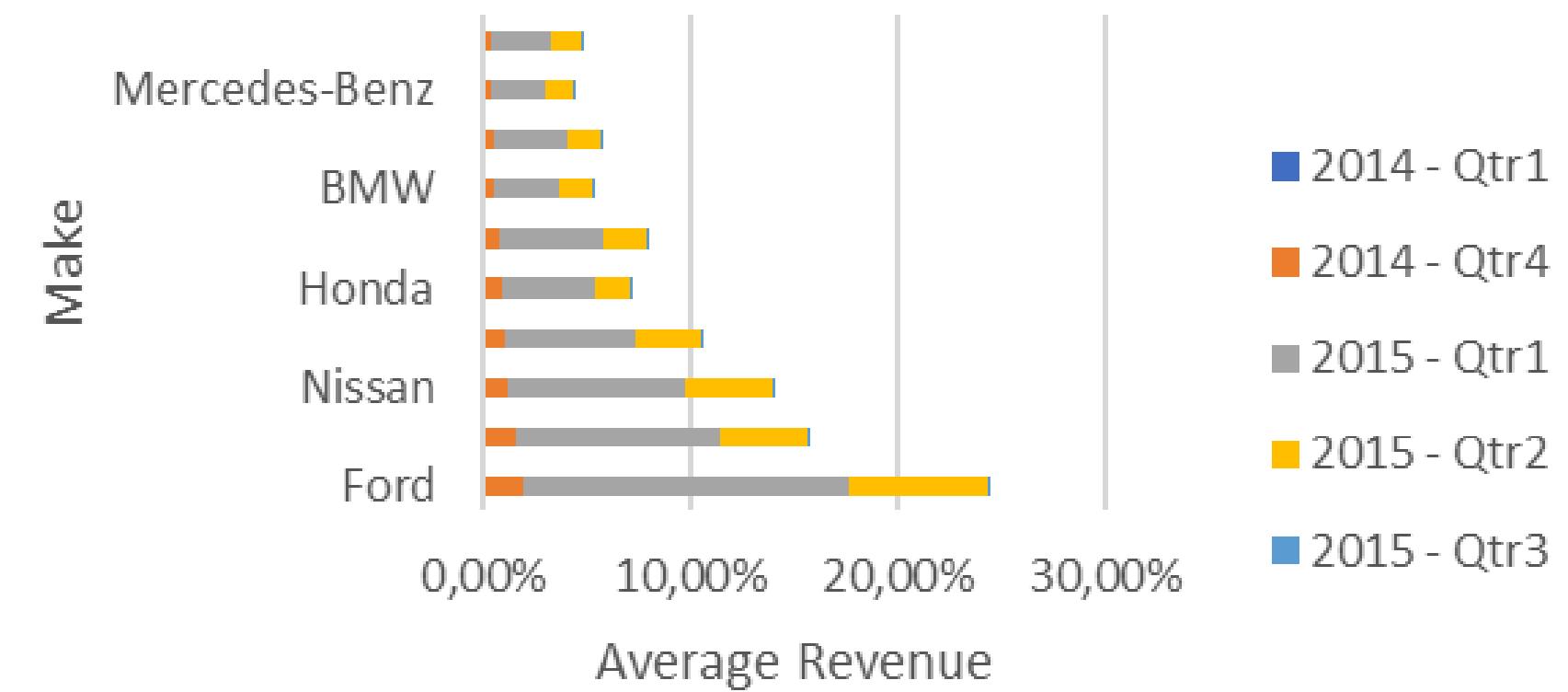
# AVERAGE REVENUE BY MAKE FOR 2014 AND 2015

## Monthly and Quarterly Average Revenue for 2014 & 2015

Average Monthly Revenue by Maker for 2014 and 2015



Average Quarterly Revenue by Maker for 2014 and 2015



### Insight:

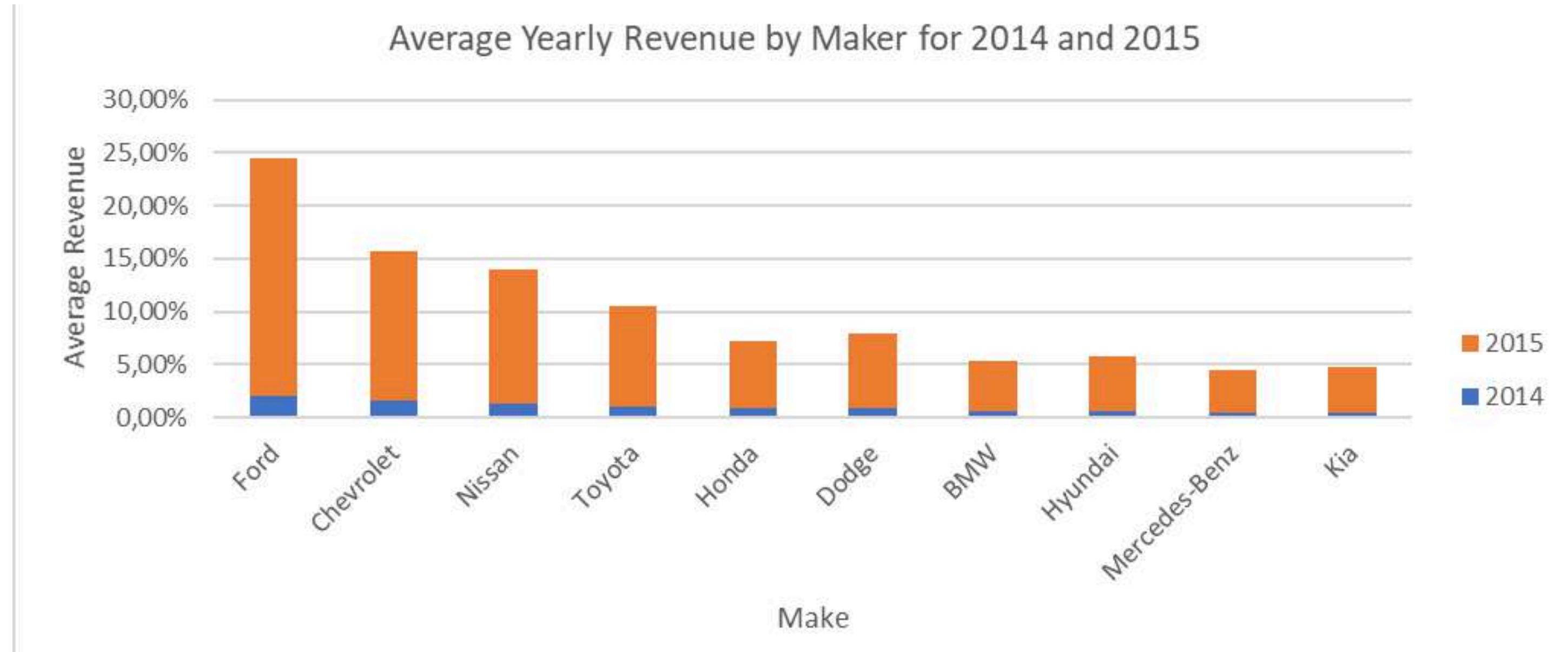
Ford led the revenue performance analysis, achieving the highest average revenue contribution at 24.42%. This performance contrasts significantly with Kia, which recorded the lowest average revenue share at 4.72%.

### Insight:

Q1 2015 represented the peak period for average revenue, achieving 62.14%, largely due to the substantial contribution from Ford. The lowest performance was recorded in Q1 2014, accounting for a marginal 0.04% of the total average revenue.

# Average Yearly Revenue by Maker for 2014 and 2015

## Average Revenue for 2014 & 2015



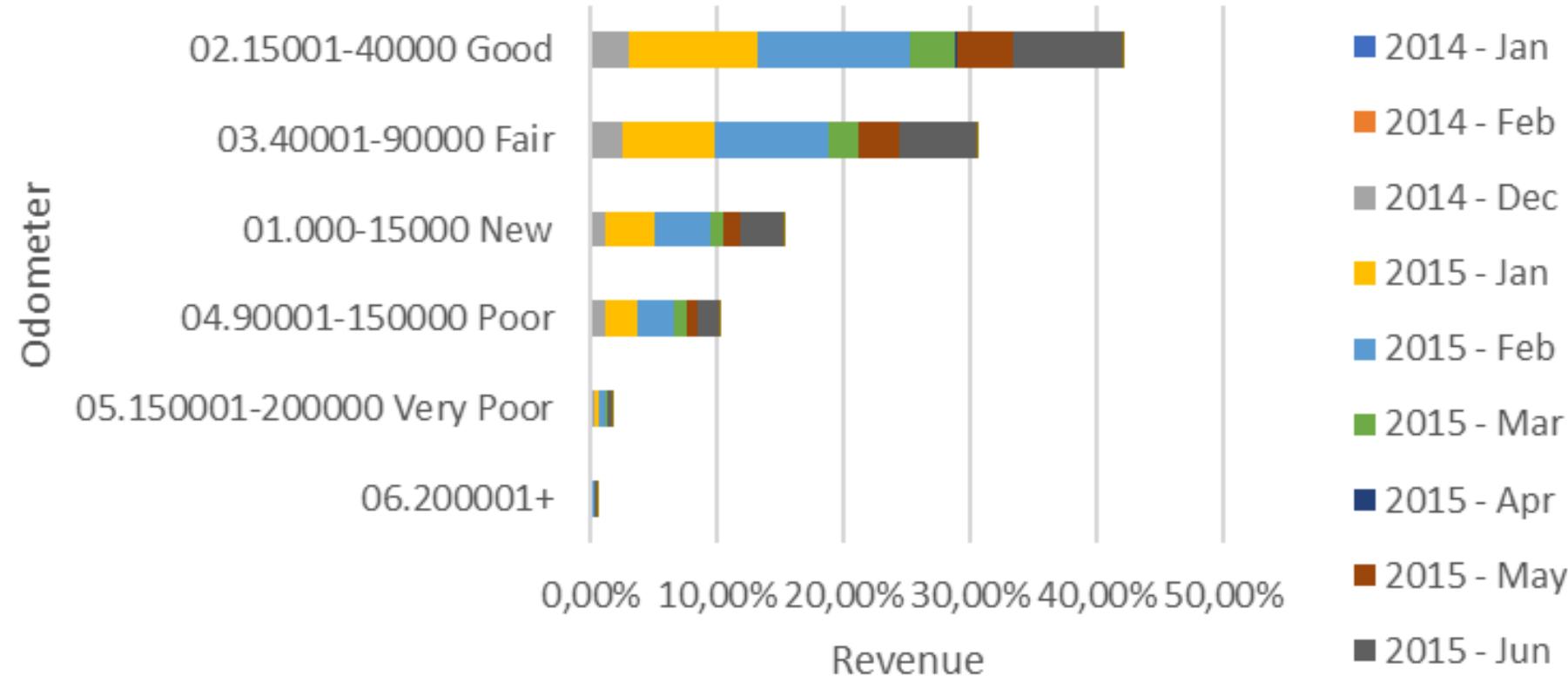
Insight:

Revenue generation in 2015 significantly exceeded the previous year, accounting for 90.37% of the total revenue, compared to 9.63% in 2014.

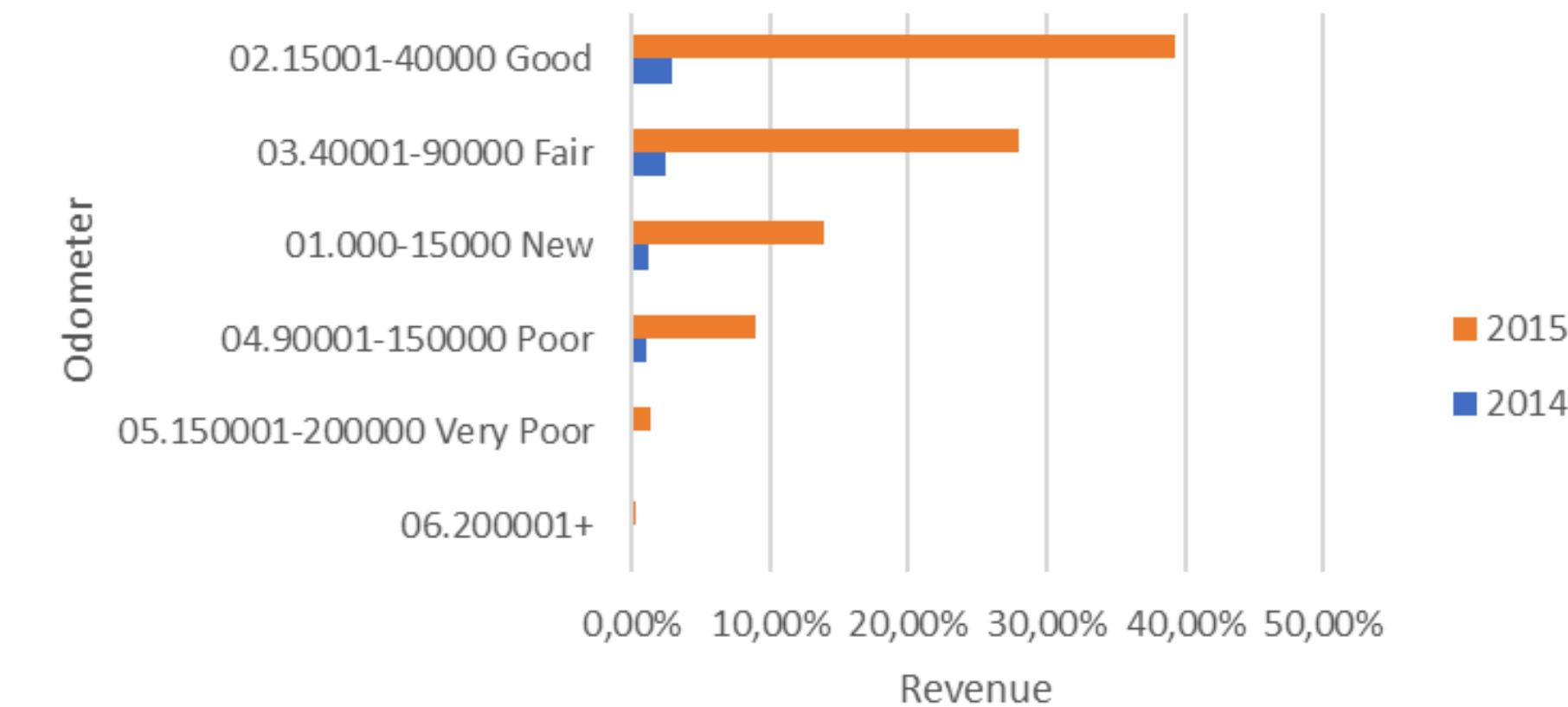
# Revenue by Odometer for 2014 and 2015

## Monthly and Yearly Revenue by Odometer for 2014 and 2015

Monthly Revenue Performance by Odometer for 2014 and 2015



Yearly Revenue Performance by Odometer for 2014 and 2015



### Insight:

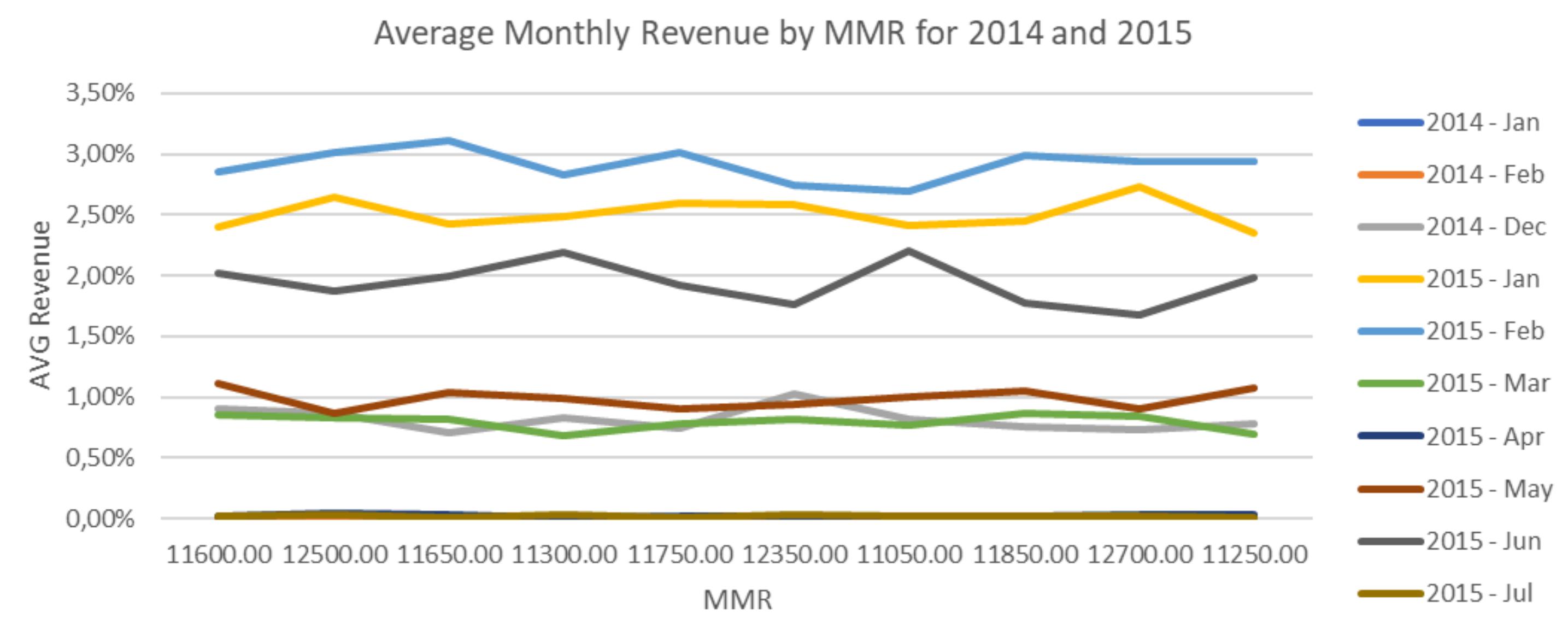
Low odometer vehicles were the dominant drivers of monthly revenue, achieving a 42.21% share. In sharp contrast, high odometer vehicles were responsible for a minimal 0.41% of the total monthly revenue.

### Insight:

The majority of revenue (92.01%) was generated by low-odometer vehicles in 2015. This marked a significant performance difference from high-odometer vehicles, which contributed the lowest share (7.99%) in 2014.

# Average Monthly Revenue by MMR for 2014 and 2015

## Average Monthly Revenue by MMR for 2014 and 2015

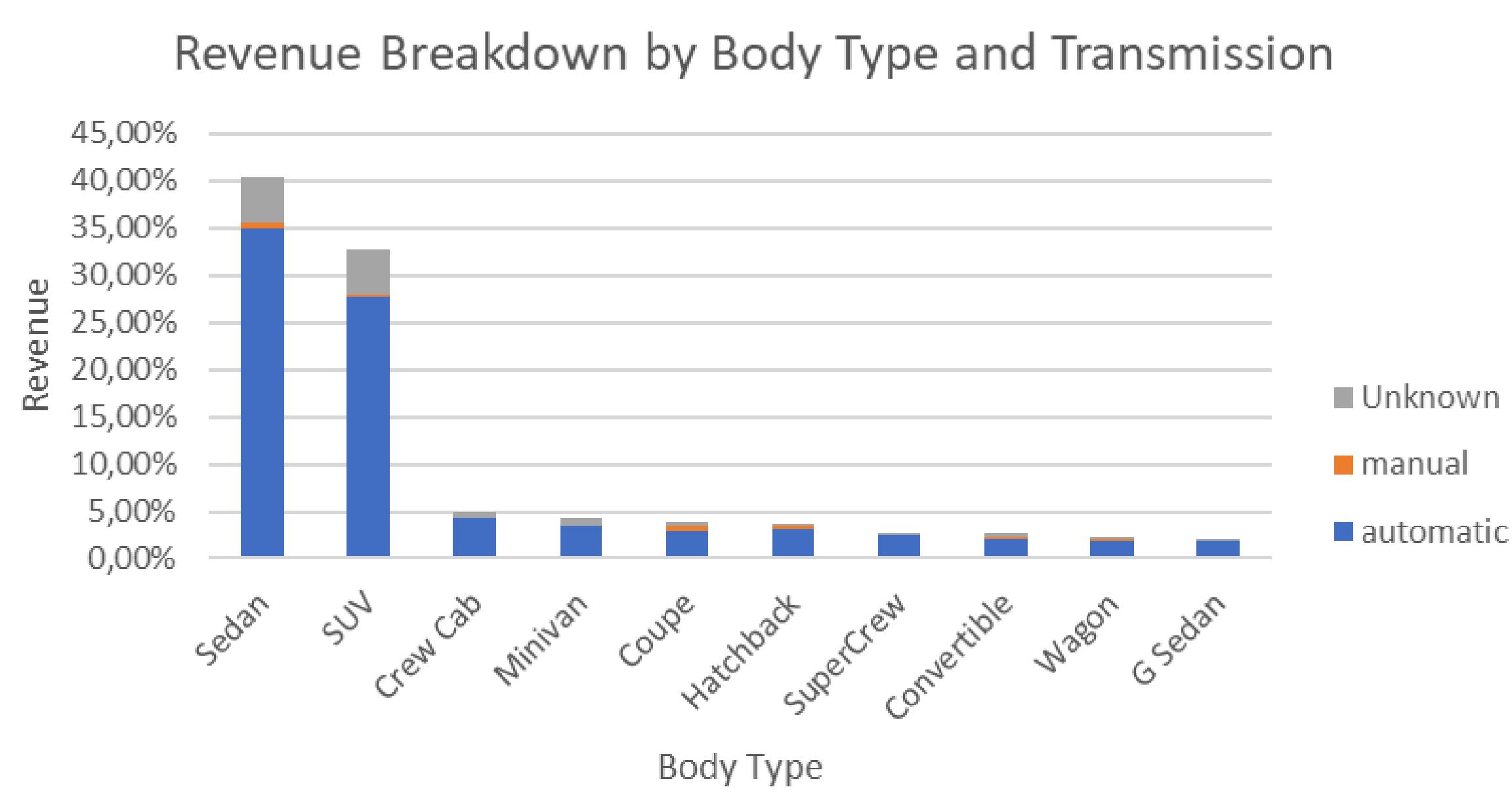


### Insight:

Revenue analysis highlights February 2015 as the month with the highest contribution, achieving a 29.10% share. Conversely, February 2014 recorded a negligible revenue contribution of 0.00%.

# Revenue Breakdown by Body Type and Transmission

## Summary of body type and transmission for 2014 and 2015

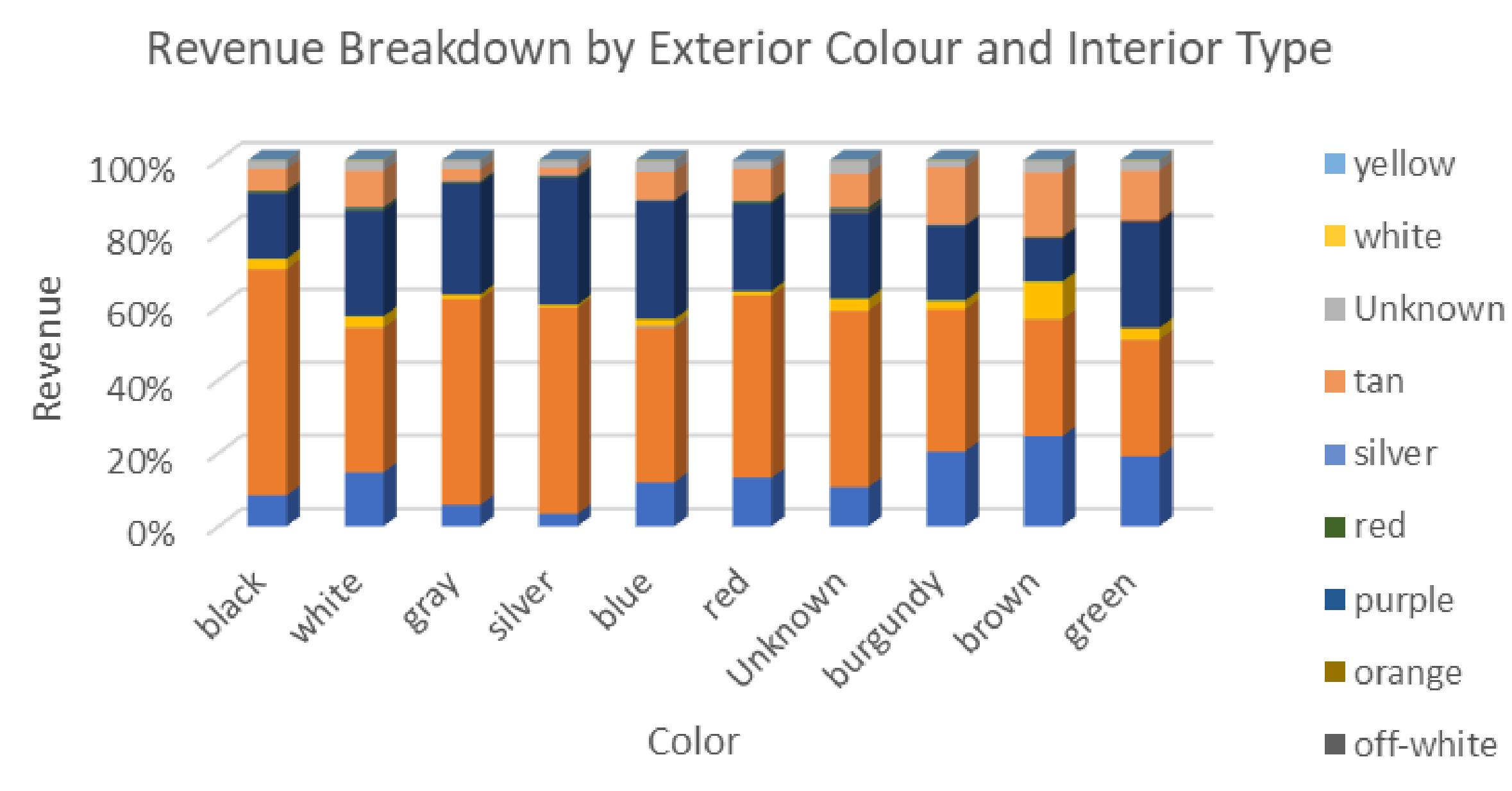


Insight:

Automatic transmission vehicles and sedan body type were the primary drivers of revenue, contributing 85.05%. This significantly exceeds the revenue generated by manual transmission vehicles, which accounted for the lowest share at 2.45%

# Revenue Breakdown by Exterior Colour and Interior Type

## Summary of Exterior colour and interior type

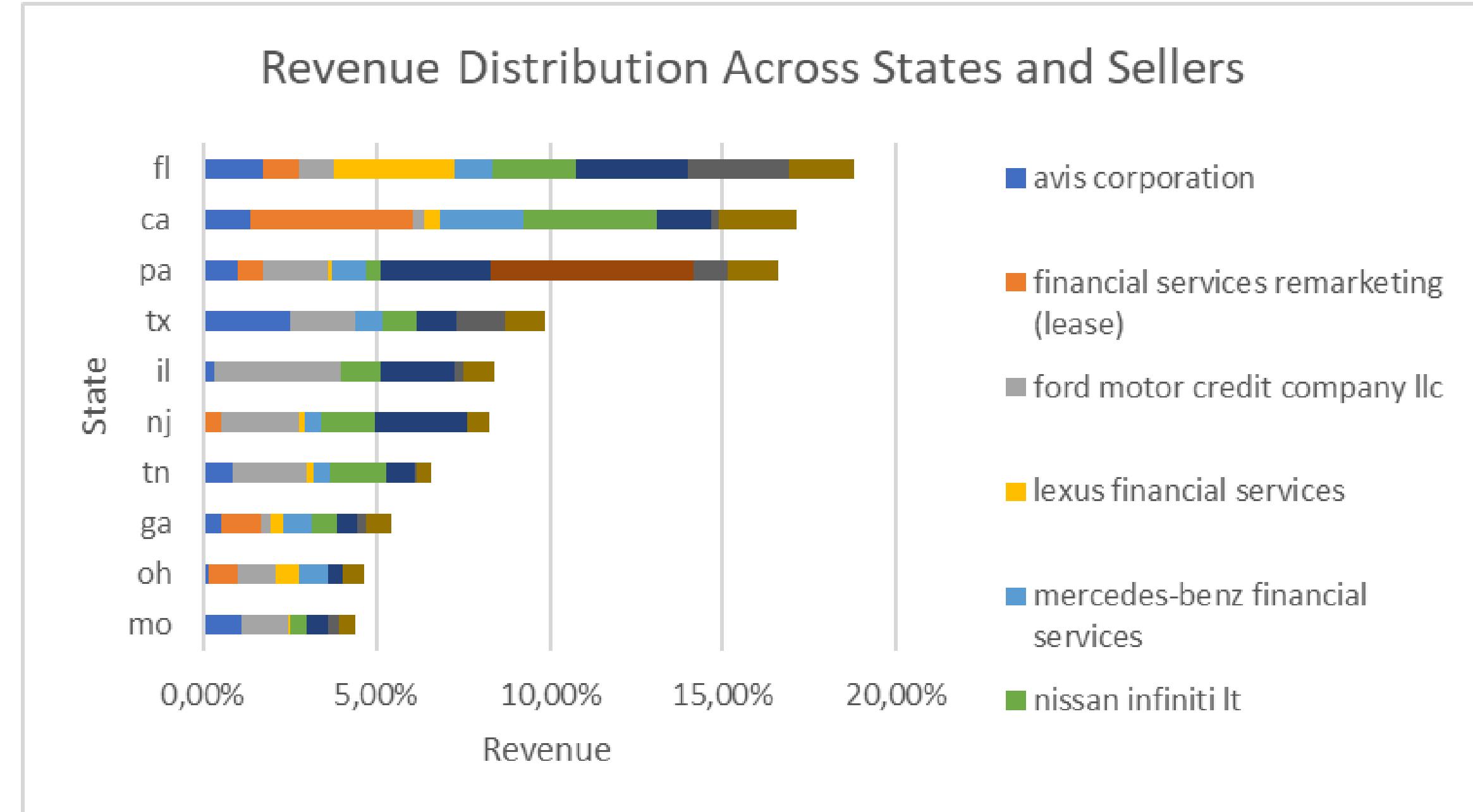


Insight:

Black-colored vehicles were the leading contributors to revenue, accounting for 50.90%. This performance stands in sharp contrast to the minimal contribution from yellow-colored vehicles, which registered 0.00%

# Top 10 Revenue Generated by States and Sellers

## Summary of revenue generated



# Insight:

Florida was the leading state in revenue generation, accounting for 18.77%. This performance stands in contrast to Missouri, which registered the lowest revenue share at 4.37%.

# Revenue Performance Summary



Category	Peak Performance	Key Driver/Value	Lowest Performance	Value/Contrast
Annual Revenue	2015	92.01% of total revenue	2014	7.99% (Remaining Share)
Average Annual Rev.	2015	90.37% of total revenue	2014	9.63% (Remaining Share)
Quarterly Revenue	Q1 2015	61.56%	Q2, Q3, Q4 2014	0.00% (Registered No Revenue)
Monthly Revenue	Feb 2015	29.10% (Highest)	Feb 2014	0.00% (Negligible)
Manufacturer (Avg. Rev.)	Ford	24.42% (Highest Contributor)	Kia	4.72% (Lowest Contributor)
Vehicle Mileage (Monthly)	Low Odometer	42.21%	High Odometer	0.41%
Vehicle Mileage (Annual)	Low Odometer (2015)	92.01%	High Odometer (2014)	7.99%
Transmission Type	Automatic	85.05%	Manual	2.45%
Exterior Color	Black	50.90%	Yellow	0.00%
State Revenue	Florida	18.77% (Highest)	Missouri	4.37% (Lowest)

This report presents a consolidated overview of key performance indicators (KPIs) extracted from the car sales dataset, with particular emphasis on notable variations observed across different time periods, manufacturers, and car characteristics.

# Key Actionable Insights



- **Focus on Ford and Low-Mileage Inventory:** Ford and low-mileage vehicles are overwhelmingly the highest revenue generators.
- **Prioritise Automatic Transmission and Black Vehicles:** Given that Automatic transmission contributes 85.05% of revenue and the Black colour segment contributes 50.90%, marketing and acquisition efforts should prioritise these specifications to maximise sales efficiency.
- **State Expansion/Allocation:** Florida, accounting for 18.77% of revenue, represents a high-yield market. Resources and inventory allocation should be optimised to support this region, while exploring strategies to boost performance in lower-contributing states like Missouri (4.37%)
- **Model Seasonality and Disparity:** The dramatic difference between 2015 (92.01% revenue) and 2014 (7.99%) suggests either a massive expansion, a change in reporting, or extreme market volatility.



# Recommendation

Leverage the comprehensive vehicle attributes—including Year, Make, Model, Odometer Reading, Condition Rating, and MMR Values—to develop a robust predictive model capable of accurately estimating selling prices.



# Thank You

