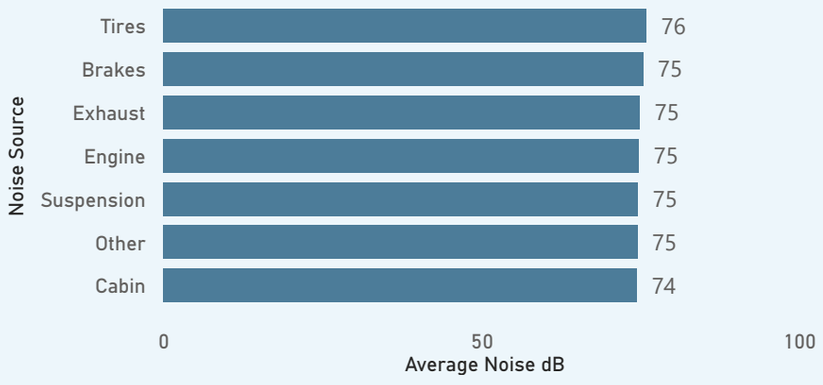
NVH Performance Analysis

Drill-through

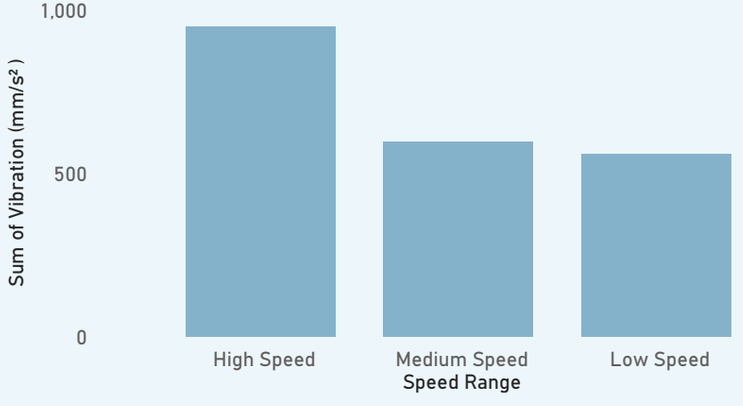
High Noise Incidents	Sum of Vibration (mm/s²)	Average Noise dB by Noise Source	Vibration by Measurement Point
53	2,101	76.02	346

Average Noise by Noise Source



Sum of Noise (dB) by Month

Vibration vs. Speed Range



Avg Noise (dB) – Model x Surface

Model	Asphalt	Concrete	Gravel	Snow	Unknown	Wet Asphalt	Total
Model Z	75.93	75.13	70.12	74.00	77.01	75.78	**74.87**
Model X	76.87	75.53	74.52	73.23	75.93	73.55	**74.77**
Model C	75.35	76.26	73.77	78.27	74.53	74.81	**75.77**
Model B	75.31	74.17	76.91	74.80	72.58	77.51	**75.60**
Model A	74.21	75.15	73.24	74.09	79.58	73.50	**74.16**
Total	**75.46**	**75.21**	**74.08**	**75.22**	**75.98**	**75.00**	**75.05**

Model
- Select all
- Model A
- Model B
- Model C
- Model X

Speed Range
- Select all
- High Speed
- Low Speed

Road Surface
- Select all
- Asphalt
- Concrete
- Gravel
- Snow
- Unknown

Noise Category
- Select all
- High Noise
- Low Noise

Customer Feedback Analysis

Drill-through

Average Feedback Score by Year

3.04

Latest Feedback

December 30

Feedback Count by Year

828

Harshness Rating

- Select all
- Average Ride
- Good Ride
- Poor Ride

Road Surface

- Select all
- Asphalt
- Concrete
- Gravel
- Snow

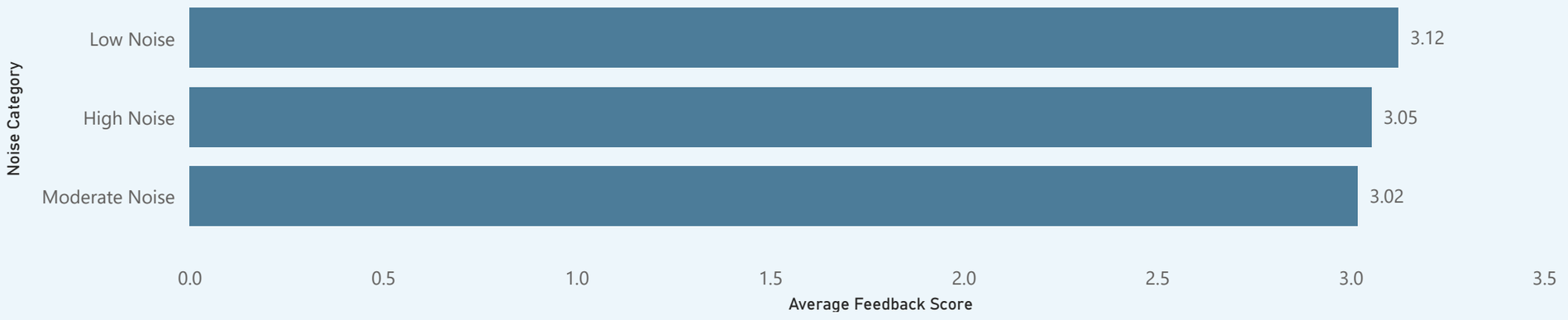
Model

- Select all
- Model A
- Model B
- Model C

Speed Range

- Select all
- High Speed
- Low Speed
- Medium Speed

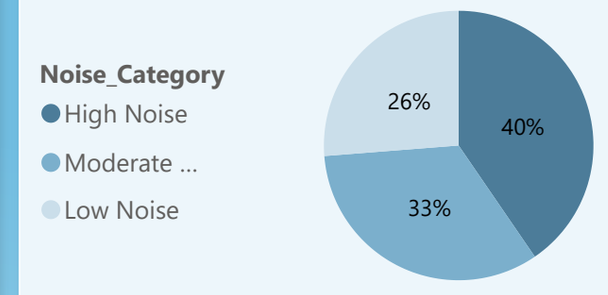
Avg Feedback by Noise Level



Feedback Entries by Driving Conditions

Model	Average Feedback Score	Average Noise dB	Speed_Range	Road Surface
Model A	1.00	96.10	Low Speed	Concrete
Model A	3.00	94.60	Medium Speed	Unknown
Model Z	4.00	91.40	Low Speed	Wet Asphalt
Model Z	2.00	91.30	Low Speed	Unknown
Model B	3.00	89.50	Medium Speed	Concrete
Model Z	2.00	89.00	Low Speed	Snow
Total	**3.04**	**75.05**		

Average Noise dB by Noise Category



PROJECT OVERVIEW & DOCUMENTATION

- This report presents a detailed NVH (Noise, Vibration, and Harshness) analysis using a synthetic dataset that simulates real-world automotive performance. The objective is to identify anomalies, trends, and areas for improvement in vehicle ride comfort and noise behavior using Power BI.

Page Information:

Page 1 – NVH PERFORMANCE ANALYSIS :

• Summary KPIs: Noise, Vibration, Incidents
• Noise by Month and Component
• Vibration by Speed Range
• Matrix: Model × Road Surface

Page 2 – CUSTOMER FEEDBACK & EXPERIENCE :

• Feedback Score by Noise Category
• Harshness Rating Breakdown
• Noise vs. Perception Correlation

Page 3 – DRILL_THROUGH MODEL DETAILS :

• Detailed row-level data by vehicle model
• Metrics: Noise, Vibration, Speed, Feedback

Page 4 – Documentation (This Page):

• Project purpose, layout guide, features

Key Features:

- Custom tooltips (Noise Source, Noise Category, Vibration Point)
- Drill-through page for model-level detail
- Slicers: Model, Surface, Speed, Noise Category
- Gradient-based background image
- Star schema data modeling