Analyze the relationship between price and carat, also give recommendations if any

The relationship between **price** and **carat** in the provided Power BI dashboard is clearly visualized through a scatter plot (carat vs price), summary statistics, and supporting charts.

Analysis of Price vs. Carat Relationship

- There is a **positive correlation** between carat and price: as the carat (weight) of the diamond increases, the price also increases.[1]
- The scatter plot demonstrates that lower-carat diamonds span a wide range of prices, but as carat increases, prices rise steeply, reflecting the premium for larger stones.[1]
- The price increase is **non-linear**—for higher carat values, the upward trend in price becomes even steeper, indicating price grows disproportionately as carat increases.[1]
- Outliers exist at higher price points for lower carats, which may correspond to diamonds with exceptional qualities in other attributes (e.g., cut, color, clarity).[1]

Recommendations

- **For Buyers**: Smaller-diameter stones (<1.5 carats) often offer better value, as price per carat escalates significantly for larger stones. Consider balancing size with other quality factors (cut, clarity, color) to optimize both beauty and value.[1]
- **For Retailers/Sellers**: Focus marketing efforts on premium, higher-carat stones to maximize revenue, but also showcase value offerings in popular smaller size ranges.[1]
- **For Analysts/Procurement**: Investigate outlier diamonds where the price is high despite lower carat—these may hold unique value attributes justifying premium pricing, or might be pricing anomalies worth further review.[1]
- **For Designers**: Since price growth is exponential with carat, consider offering unique designs that highlight smaller stones' quality, appealing to price-sensitive segments.[1]

The main insight is that **price increases dramatically with carat size**, so buyers seeking optimal value should carefully consider trade-offs, and sellers should recognize the high margin and demand sensitivities in higher-carat categories.[1]

1. image.jpg