

## Bike Shop Analysis

Background : Create a dashboard for a bike shop that displays key performance metrics for decision making. Metrics displayed : hourly revenue analysis, profit and revenue trends, seasonal revenue, rider demographics

Tools: SQL, Microsoft SQL Server, Excel, Power BI

Question: Recommendation for price increase next year

Results :

- hourly earnings analysis  
The highest earning hour in total is 5:00 p.m. (\$1,553,300)  
The hour with the highest average earnings is 5:00 p.m. (\$221,900)  
The hour with the lowest income on average is 10:00 (\$83,215)
- profit and revenue trends  
It can be seen that the profit and revenue trend in 2021 increased from April to October and then increased drastically in 2022.
- seasonal income  
The highest seasonal earnings occurred in season 3 with a total of \$4.9 million while the lowest seasonal earnings occurred in season 1 with a total of \$2.2 million.
- driver demographics  
There are 81.17% registered drivers while the remaining 18.83% are casual or unregistered drivers.

Recommended price increase next year

In 2021 with an average price of 3.99 managed to get 1,243,103 total riders, \$ 4,959, 981 total revenue, \$ 3,418,533 total profit. Then in the following year there was a price increase of 25% from the previous to 4.99 from the price increase then generated 2,049,576 total riders, \$ 10,227,384 total revenue, \$ 7,030,046 total profit. From these data a 25% price increase brings a 64% increase in demand compared to the previous year. By knowing the value of the increase in goods and the increase in demand, the Price elasticity of demand value is 2.56 where the role of the price increase still has a positive impact on the increase in demand for the goods. PED shows that this item is elastic, meaning that the price increase not only does not reduce demand, but actually significantly increases total demand and income. A 25% price increase has a positive impact on demand (64%) and profits (106%), indicating that demand has a positive relationship with the perceived value of this good or service.

Price Increase Strategy Recommendations

- Make more careful price increases  
Based on the elasticity of demand (2.56), there is still room for price increases without reducing demand. It is recommended that the price increase be in the range of 7-10% (\$5.33 - \$ 5.99). Simulations need to be conducted to calculate the impact on demand and profit margins.
- Competitor Analysis and Customer Perception  
Make sure the price increase remains competitive in the market. Customers seem to think this product has enough added value to justify the price increase.
- Market Response Monitor

Conduct regular evaluations of demand data and elasticity after a price increase. If demand begins to decline, adjust your pricing strategy immediately.