

Business Strategies

From a Data Scientist

- Introduction:
- Overview:
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I would like to welcome you all to my presentation: **Business Strategies from a Data Scientist**.

First I'm going to set the **Scenario** of our meeting and then I will present **three business Strategies** on how to improve the turnaround of our company.

The Scenario:



So the Scenario is as follows:

You guys are the **management board** of our company "**housedoor**". We are a **start up** looking to **disturb** the housing market in the US.

Our business is to be a **intermediary** in the housing market. We make it easy for people to **buy and sell houses online** with only a few clicks.

My job as a data scientist is to give you **strategies to improve** our business. We are looking to **expand our business** on the promising Seattle area.

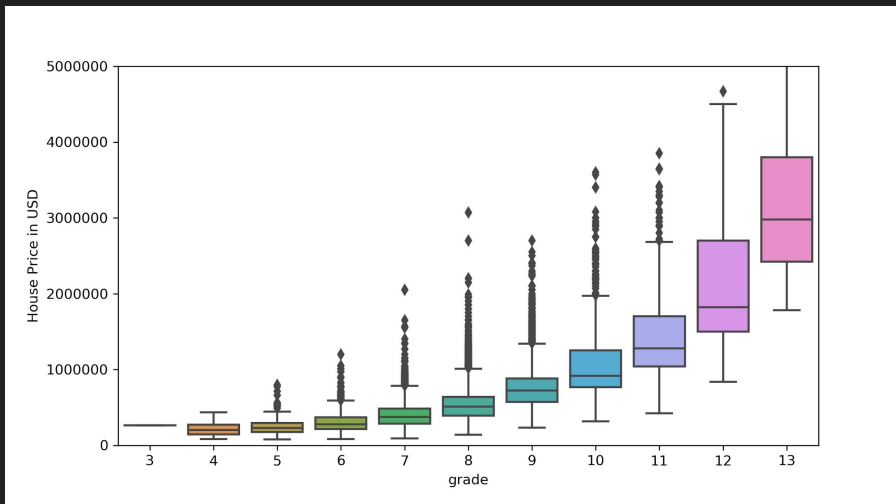
Therefore I analysed a dataset with around 21000 entries of houses sold in the year 2014 - 2015.

Question:

How can we maximize the selling price?

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Answer: Improve the grade of the houses bought



Answer: Improve the grade of the houses that we bought!

Here we see the **all the houses** in our data set **grouped by the King County Grade System** with their **corresponding house price**. There is a strong indication that **improving the grade significantly** increases the housing price. This is especially true for houses in the higher price range.

Improvement Strategy:

- Build local construction companies
- Know what to improve
- Increase the selling price

This is my suggested Improvement Strategy:

1. Establish business relations with local construction companies.
2. Build expertise on: "What are the **key factors** for house improvement?"
3. Increase the selling price!

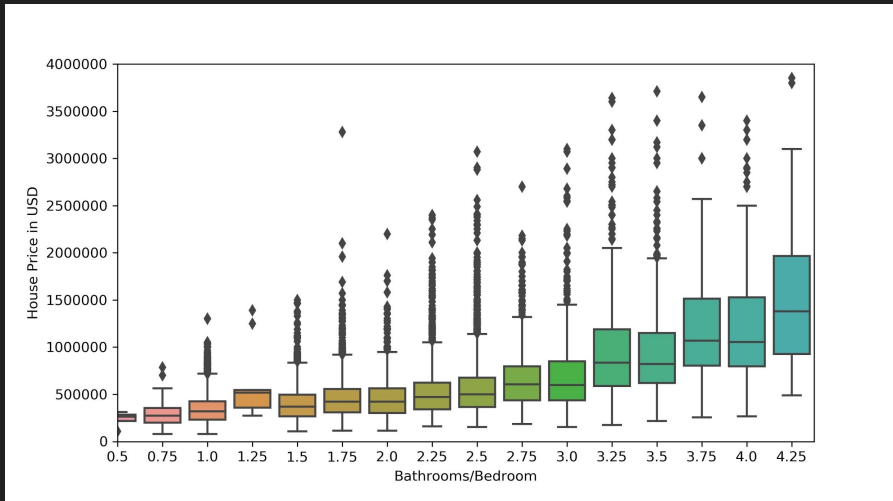
Question:

How *e/se* can we increase the selling price?

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Answer: Add bathrooms!



Answer: Add bathrooms!

The data show the the number of bathrooms per bedroom strongly correlates with the housing price!

Bathroom Strategy:



Therefore I suggest the following business strategy:

Once we have established a good connection to the local construction companies

- We form a **team of expert** which can determine if a house in our portfolio is **suitable** for bathroom expansions.
- Then our local partner will **modify suitable houses**.
- We increase the selling price!

Also we should add a feature in our dataset which considers if a house has the potential for bathroom expansion.

Question:

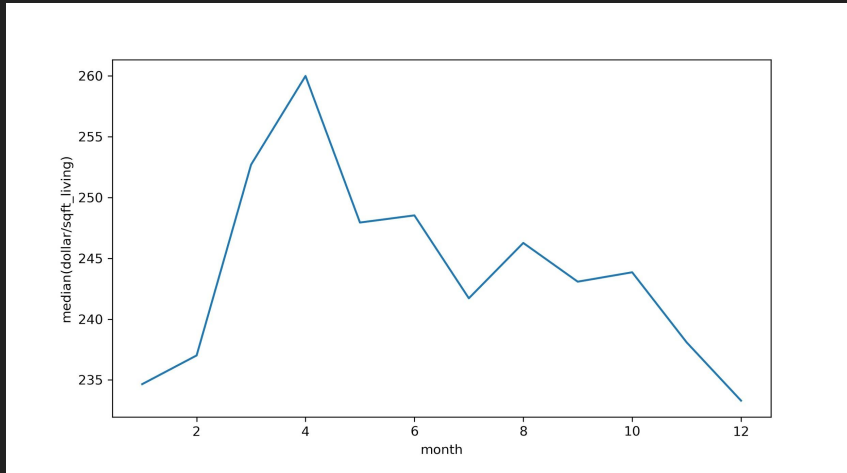
When is the best time to buy and sell?

Question:

Is there another way we can improve our buying and selling strategy?

In other words: "When is the best time to buy and sell houses?"

Marketing Strategie:



The data show that there is a significant seasonal influence in the housing market:

- Here we see the **median house price divided by the area of the living room** over the year.
- The data shows that there is a significant seasonality in the market!
- Low prices in the months from November until February
- And a sharp increase in the spring!

Answer:

- Buy in winter
- Sell in spring

To make best use of this seasonal effects I recommend the following strategy:

- **Buy in winter / Sell in spring!** Or in other words:
- Increase buying activities in the winter months
- Increase marketing budget in the spring months!

Summary:

- Renovate the houses
- Add bathrooms where possible
- Buy in winter / Sell in spring

Summarize the all strategies on how to improve our business:

- Renovate houses in our portfolio
- Add bathroom where possible
- Adjust marketing and buying effort to the seasons!

THANK YOU FOR YOUR ATTENTION!

Future Work:

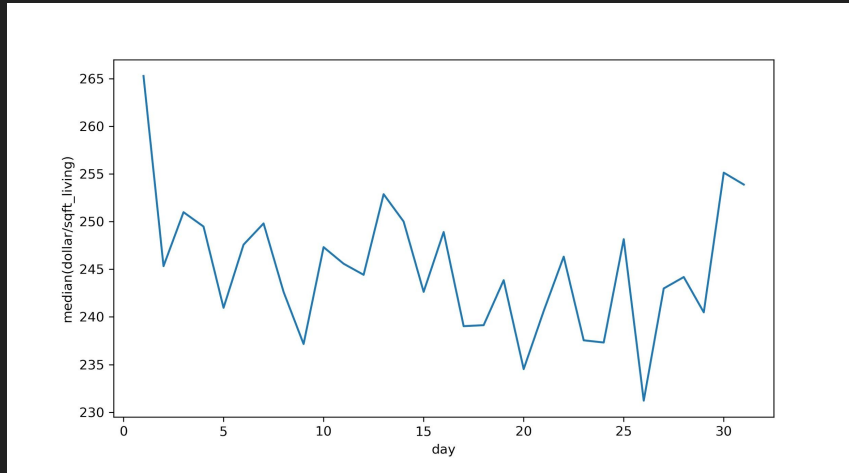
- Visualize location of houses
- Include macroeconomic factor
 - Mortgage Interest rate, Consumer sentiment, Disposable income, Tax environment

Thank you for your attention!

THANK YOU FOR YOUR ATTENTION!

More Strategies?

More advise on best timing:



- The data show a significant increase in median house price relative to living room area.
- Focus marketing budget on the very end and beginning of the month
- Increase buying activities towards the end of the month