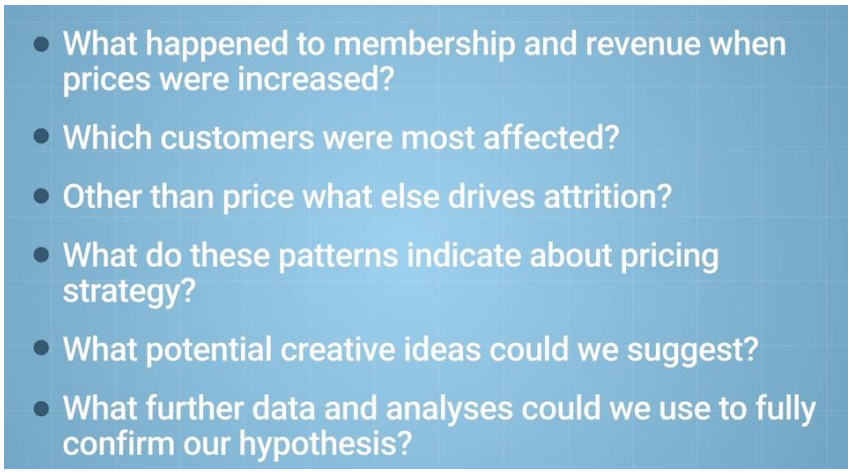
Client Case: OG&Gym

Our most recent client is a **budget gym operator**. They've grown a great deal in the past 10 years and have now expanded to every borough in London. As their expansion began to slow more recently, they decided to try **increasing prices to maintain growth**. They raised prices for both standard and flexible memberships, resulting in a positive impact on revenue. However, the increase has not been as much as they would have hoped, and they feel that they don't fully understand the customer dynamics around churn as much as they would like to. They have one key competitor and believe that they could adjust their offering to compete better.

In order to find a solution, we need to address **a few key questions**, such as what happened when prices were increased to membership and revenue and which customers were most affected. Other than price, what else drives attrition? What do these patterns indicate about pricing strategy? And what potential creative ideas could we suggest. And, finally, what further data and analysis could be used to fully confirm our hypotheses?



So the client has provided **two key data sets:**

- Number one is the subscriber database holding the join date, leave date, and demographic data of every single customer.
- In addition, they provided the visitation data set, which denotes the visit time and date of every member. And these can be joined together using the customer ID column.

The visits data is large but you should be able to summarise it effectively early on in the process, which should make the analysis much faster. In addition to these, we have provided the pricing structure over time of the client and their key competitor. **In order to tackle this problem:**

1) we will need to carefully cut the data in such a way as to isolate key trends. For example, new gym openings or seasonality might obscure trends in member acquisition and attrition.
2) We'll then need to illustrate what we have found and what we might therefore recommend on the basis of our findings. Simplicity is key.
3) In addition, we'll need to think creatively about how to enhance the data sets beyond their current state. For example, gym environment might have an impact on a member's likelihood to churn. The visitation and member data will be able to provide clues as to what this environment is like.

4) Finally, we should prioritise the groups of people that we focus on. Larger groups are where the greatest business opportunity will lie. In addition to these, we have provided the pricing structure over time of the client and their key competitor.

All the information we need will be held within the data sets provided.

Case questions

The client is a budget gym operator, OG&Gym. They recently raised the price for both standard and flexible subscriptions, resulting in a positive impact on revenue. However, the increase has not been as much as they would have hoped.

1. How could they improve their pricing strategy?
2. What happened when the price was increased?
3. What does this suggest as possible options going forward?
4. In addition to price, what other factors influence whether a member is going to leave?
5. Bonus: Given this, to what degree can we predict individual member churn?

Notes

- The client has noted that in certain clubs and at peak times (7-9am, 12-1pm, 6-8pm), the workout spaces can be very crowded
- The client has one key competitor, that is a slightly more premium offering and who also operates across London
- There are two forms of membership, standard and flexible; flexible members can leave at any given month, while standard members must give three months notice
- Price increases are applied unilaterally across new and existing customers – for standard customers, they are given the option of leaving before the price rise, without having to pay for three further months
- The client does not match customers between subscriptions – if they leave and return months later, they will appear as separate CustomerIDs; survey data suggests the proportion of returning customers is very low and that this is not an issue
- When a member visits more than one time per day, only the first visit is logged; members have a maximum of one visit per day
- We currently do not have access to the day pass data
- For social grade, 'A' is the most affluent and 'C2' is the least – DE are unemployed / retired.

Kick-off meeting:

Kick-off meeting

- Establish key strengths and discuss how you will collaborate
- Decide what collaboration and project management tools you are going to use to communicate and manage your workflow
- Consider how regularly you want to meet
- Assign a project lead (responsible for managing communications and documenting progress)
- Discuss the data and agree on your approach to tackling the problem
- Allocate tasks and set deadlines
- Make a list of questions to submit to the teaching team
- Assess risks and identify blockers – if necessary, escalate to stakeholders (your teaching team).

Customer Churn Analysis

- Customer churn is the percentage of customers that stopped using your organisation's product or service over a certain time frame.
- Tt provides organisations with hard facts about its customer retention, and it's therefore one of the most important metrics for a growing business to evaluate.
- There are different metrics you can use to calculate customer churn, but the key is to focus on actionable metrics. For example if a metric isn't actionable and you can't do anything to improve it, why are you tracking it to begin with? So what metrics should you be tracking?
- According to serial entrepreneur, Eric Ries, the best kind of pure customer metrics to use for ongoing decision-making subscription services are cohort analysis and funnel metrics, which help us track and mitigate churn more effectively. For example, consider a service search as a well-being platform that has a couple of key customer life cycle events, registration, signing up for a free trial, using the service, and becoming a paying customer.
- You can create a weekly report that shows these metrics for consecutive cohorts or groups of users over time, and calculate the percentage of users who registered in that week who subsequently went on to become paying customers. If numbers remain consistent across cohorts, then this implies that nothing significant is changing. However, if these numbers suddenly shift, this strongly indicates that you need to investigate the issue further.
- The important takeaway here is that cohort analysis allows businesses to ask a very specific question, analyse only the relevant data, and take action it.

Top tips

- **Make churn rate an actionable metric**: Actionable metrics help us recognise a problem and point us in the right direction to start solving it
- **Only measure what matters**: Only track metrics which are aligned with your business goals – not all data is helpful and vanity metrics can trick us into believing we have answers when we don't
- **Have a specific task**: "Prevent customers from cancelling" is not specific enough
- **Be 100% sure in your data!**

Below are some questions to keep in mind when dealing with churn. You may wish to discuss these in your team meeting this week.

Questions

- How do you determine the reasons for why customers churn?
- What methods are used?
- How do you follow up with customers who defect in order to refine your model and better understand defection conditions?
- How much does it cost you to replace a customer once he/she defects?
- How much money do you lose when customers leave to go to competitors?
- How much does it cost your competition to replace a customer that you've taken from them?
- What kind of customer feedback loops are built into your interactions with the the customer that allow you to assess the risk of defection?
- What types of customer risk categories have you identified based on attitudinal data (collected during key events)?
- How often do customers leave?

Data analysis checklist

SEMMA methodology here: **S**ampling, **E**xploring, **M**odifying, **M**odelling and **A**ssessing.

Sampling:

Examining sample sizes

Have you:

- Checked the overall good/bad (G/B) ratio for each feature? For example, in predictive analysis problems, the ratio between good classes (ham) and bad classes (spam) either for the entire sample population, or within a certain feature.
- Checked which features discriminate more or less?

Exploring:

Distribution, frequency and summary

Have you:

- Run frequency counts to produce frequency tables?
- Examined data normality (or not) of features?
- Looked for outliers?
- Examined summary statistics?
- Summarised the data in a clean tabular format?

Modifying:

Data cleaning and massaging

Have you:

- Eliminated meaningless missing values?
- Normalised values?
- Standardised the formats of e.g. date times, metric units etc.?

Modelling:

Defining characteristics and attributes

Have you:

- Thought about data partition? For example, if doing predictive analysis, have you kept a holdout test set?
- Used all attributes available in the data file? If not, why have we decided to exclude them?
- Considered grouping some features to create new attributes, and/or engineering new features?

Assessing:

Examining the association between variables

Have you:

- Calculated any statistics (e.g. chi-squared, information value, correlation etc.) between all features and the response variable?
- Dropped variables that have little or no association values from further study?