

Business Analytics Capstone Framework for Strategy

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Problem Statement

Problem Statement—

Describe the Problem Adblockers present to GYF

- GoYaFace, Inc. (GYF) is a major digital company that provides free services to its users, such as GYF Search, GYF Mail & Chat, and GYF Digital Media. GYF generates revenue by selling advertising space to other companies that place ads on its digital platforms.
- Recently, the increasing use of ad-blocking software, both on traditional desktops and mobile devices, poses a significant threat to GYF, which relies heavily on advertising revenue.
- The problem is that if ad-blocking continues to gain popularity, companies may stop placing ads on GYF, potentially causing a significant loss of revenue for the platform.
- To mitigate the loss of revenue, GYF's operation department may need to reassess its business model and explore alternative revenue sources.
- GYF may consider requiring end users to pay for the service. This has implications for end users as they would need to start paying for access to GYF.
- GYF may lose its customer base if it starts charging customers. This has implications for GYF because it would lead to a decline in revenue.

Problem Statement—

Application Exercise 1 – Research Methods and Tools (Optional)

- Since we are aware of the problem facing GYF, our initial approach should involve conducting ***Descriptive Research***. This type of research will help us gain a comprehensive understanding of how ad-blockers are impacting GYF.
- Afterward, when we clearly define the problem, we can proceed with ***Causal Research*** and work towards a solution. For instance, one specific inquiry could be, "Are customers willing to see more delight ads and stop using the adblockers?" Conducting such research will provide valuable insights into potential strategies to address the issue.
- The tools we can use to collect data includes:
 - ***Surveys (mobile)***: to gather information on users' attitude towards the online advertising and adblocking.
 - ***Pricing Analytics***: to measure the cost-effectiveness of the solution/strategy of this case study

Strategy

Strategy

Describe your proposed strategy

- Strategy: *Decreasing the overall number of ads and exclusively showcasing creative and non-intrusive advertisements to reduce user adoption of ad-blocking software, all while optimizing for effectiveness, cost-efficiency, and user experience.*
- This strategy shall be implemented through the following actions:
 - **Step 1: Definition of Metrics for Success:**

Before implementing the strategy, we should define the metrics for success. These metrics will serve as key performance indicators (KPIs) to gauge the success of the strategy. The metrics might include:

 1. Reduction in the Use of Ad-blocking Software
 2. Increase in Advertising Revenue
 3. User Satisfaction Ratings

Strategy

Describe your proposed strategy

● Step 2: Assessment of Current Ads :

Begin by conducting a comprehensive assessment of the current ads being displayed on GYF's platforms. Identify which ads are considered obtrusive by users and which are creative and non-intrusive. Delete the all intrusive, unwanted, disrespectful, and irrelevant ads to limit the number of ads in a relative low level.

● Step 3: Implementation of Quality Control:

Establish quality control measures to ensure that the best ads are accepted for display on GYF's platforms. This could involve setting specific guidelines and criteria for ad content:

1. Creativity
2. Engagement
3. Informativeness
4. Relevance
5. Insightfulness...

Strategy

Describe your proposed strategy

- **Step 4: Collaboration with Advertisers:**

Reach out to advertising partners and collaborate with them to revamp existing ad content. Encourage them to create more creative and user-friendly advertisements that align with GYF's goals.

- **Step 5: Monitoring and Analytics:**

Track the reduction in the use of ad-blocking software, observe audience dwell time on new ads, monitor the rate of users leaving (churn rate), and assess users' engagement. After monitoring, analyzing the changes in ad performance before and after the ad requirements were altered. Utilize data-driven insights to select better-performing ads and continuously refine ad guidelines and criteria for content.

Strategy

Describe your proposed strategy

● Step 6: Analysis of Advertising Revenue:

After limiting the ads in a low level but maintaining the unobtrusive and delight ones, it is time to analyze the outcomes. Does reducing the total number of ads result in an increase in overall revenue?

Determine how effective the strategy is in sustaining advertising revenue. Analyze the data to track the **increase in advertising revenue** after implementing the creative and non-intrusive ads. Compare the revenue before and after the strategy, then use statistical methods such as A/B testing to evaluate the effectiveness of the use of creative and non-intrusive ads.

● Step 7: User Education:

Communicate with users to explain the importance of ads in supporting GYF's free services. Help them understand the value exchange between viewing ads and accessing content.

Strategy

Describe your proposed strategy

● Step 8: Analysis of the Impact on User Satisfaction:

Engage with users through surveys or feedback mechanisms to collect **user satisfaction ratings** and gauge their opinions on the new ad formats. Use this feedback, including user satisfaction ratings, to further refine the ad content and placement.

● Step 9: Backup Solution:

It is possible that this strategy is not effective. Analyze other options includes:

1. Charging users for subscriptions
2. Paying adblocking companies to get whitelisted
3. Implementing an anti-adblocking service

Strategy

Application Exercise 2 – Hiring a Team Leader (Optional)

- **Peggie Prospect** would be a good candidate for DATA team at GYF. There are some reasons:
 - **Excellent Academic Performance:** Peggie graduated from a Top 50 undergraduate institution in the United States with a degree in Organizational Leadership with 3.8 GPA. It indicates that she is smart and outstanding.
 - **Relevant Experience:** She has experience in a similar field. It indicates that she has knowledge and experience to lead a team in this field.
 - **Job Knowledge Test:** She demonstrated a deep understanding and familiarity of what does DATA team do. It indicates that she has a solid understanding of this job.
 - **Interview Compatibility:** She exhibited a personality that would align well with other members of the DATA team. It indicates that she can be a good group leader/player.
 - **Recommendations:** The recommendation suggests that Peggie's focus on short-term goals could be a positive attribute, especially if it motivates the entire team to work towards achieving their objectives within a specific time frame.

Effects and Measurement

Effects

Describe the anticipated effects of your strategy

- The anticipated effects of the proposed strategy are as follows:

1. **Reduction in Ad-Blocker Use:**

By offering a less intrusive advertising experience with fewer ads that are engaging and user-friendly, GYF aims to discourage users from employing ad-blockers, thereby reducing their usage. Also, tell the importance of ads in supporting GYF's free services and earn their loyalty. This can result in a larger audience exposed to advertisements, potentially positively impacting advertising revenue.

2. **Short-term Cost Increase:**

In the short term, there may be a temporary increase in costs. This could be due to several factors includes:

- Potential revenue drop: Initially, as the total number of ads decreases, there might be a decrease in immediate advertising revenue. This could offset the cost savings.
- Investment in creating new, creative ads: Developing high-quality and engaging advertisements may require additional resources and creative work, which can lead to higher upfront costs.

Effects

Describe the anticipated effects of your strategy

- The anticipated effects of the proposed strategy are as follows:

3. Long-term Sustainability and Improved Revenue:

While there may be short-term cost increases, the focus on creative ads and an enhanced user experience represents a strategic move to ensure long-term profitability and sustainable growth. The data-driven analysis aims to strike a balance between the quantity and quality of ads that are displayed without annoying users while maximizing advertising revenue.

4. Better User Experience:

The reduction in the total number of ads, coupled with the emphasis on creative and non-intrusive ads, is expected to significantly enhance the user experience on GYF's platforms. These well-crafted ads are more likely to resonate with users, offering valuable and engaging content that aligns with their interests. This improved user experience is anticipated to result in higher levels of user satisfaction, longer user engagement times, and a greater sense of loyalty towards GYF's services. As users find the advertising content more relevant and less disruptive, they are more likely to interact with ads positively, ultimately contributing to a more enjoyable and user-friendly digital environment.

Effects

Describe the anticipated effects of your strategy

- The anticipated effects of the proposed strategy are as follows:

5. *Competitive Advantage:*

Recognizing that forcing users to disable ad-blockers could lead to a loss of user base, GYF aims to differentiate itself from competitors by enticing users to voluntarily engage with appealing ads. GYF can establish itself as a leader in the market. This could lead to a competitive advantage and improved market share.

Effects

Application Exercise 3 – Designing a Deterministic Optimization Model

- **Optimization Model:** GYF, used Solver in Excel
- **Decision Variables:** Spending amounts for internal and external programs for hard skills and soft skills
- **Objective:** Total Net Productivity Increase $((HSTI*HSSI) + (HSTE*HSSE) + (SSTI*SSSI) + (SSTE*SSSE))$
- **Constraints:**
 - 1) Budget is 65000
 $HSSI + HSSE + SSSI + SSSE \leq 65000$
 - The Hard Skills training program must achieve at least \$20,000 in the total net productivity increase
 $(HSTI*HSSI) + (HSTE*HSSE) \geq 20000$
 - The Hard Skills training program must achieve at least \$20,000 in the total net productivity increase
 $(SSTI*SSSI) + (SSTE*SSSE) \geq 12000$
 - The Internal program should achieve at least 60% of the net productivity increase realized for the External program
 $(HSTI*HSSI) + ((SSTI*SSSI) \geq ((HSTE*HSSE) + (SSTE*SSSE)) * 0.6$

Effects

Application Exercise 3 – Designing a Deterministic Optimization Model

- Result shows the following:
 - The maximum total productivity is to be achieved if the amount of budget to be spent on external hard skills and internal soft skills are **\$38,235** and **\$26,765** respectively
 - The maximum total productivity increase is **\$42,824.00**

Application Exercise 3

Net Productivity Increase (in \$ per \$ spent on training)

Training	Hard Skills (HST)	Soft Skills(SST)	Total Net Productivity Increase
Internal (I)	0.2	0.6	42823.53
External (E)	0.7	0.4	

Spending Amounts (in \$ thousands)

Training	Hard Skills(HSS)	Soft Skills(SSS)
Internal (I)	0.00	35000.00
External (E)	30000.00	0.00

Total Spending Budget	65000.00	<=	65000
Productivity Increase in Hard	26764.71	>=	20000
Productivity Increase in Soft	16058.82	>=	12000
Productivity Increase Internal v. External	16058.82	>=	16058.82

Measurement

Describe the anticipated effects of your strategy and how you will measure them

- To measure the success of the proposed strategy, we can use the following key performance indicators (KPIs):
- **Ad-Blocker Adoption Rate:** Measure the percentage of change in ad-blocking software before and after the strategy. A decrease in this rate indicates the success of strategy.
- **Advertising Revenue:** Keep track of advertising revenue over time. If it stabilizes or increases despite showing fewer ads, it indicates that the remaining ads are more effective and valuable to GYF.
- **Click-Through Rate (CTR):** Analyze the CTR on the ads displayed. A higher CTR implies that users are engaging more with the ads, suggesting that they find them relevant and non-intrusive.
- **User Churn Rate:** Keep an eye on the rate at which users are leaving the platform. A decrease in churn rate can be a sign that users are happier with the changes.

Measurement

Describe the anticipated effects of your strategy and how you will measure them

- To measure the success of the proposed strategy, we can use the following key performance indicators (KPIs):
- **User Satisfaction Surveys:** Conduct user satisfaction surveys to gather feedback on the ad experience. Look for improvements in user satisfaction scores related to ads.
- **Advertiser Satisfaction Surveys:** Seek feedback from advertisers on the effectiveness of their campaigns. Satisfied advertisers are more likely to continue investing in GYF platform.

Measurement

Application Exercise 4 – Identifying Key Drivers

- **Causal Business Model:**
- **Hypothesis:**
- Decreasing the overall number of ads and exclusively showcasing creative and non-intrusive advertisements will increase ads revenue and profit of GYF.
- **Key Driver:**
- **Return on Ad Investment (ROI):** Assess the ROI for companies post ads.
- **User Retention Rate:** Monitor the percentage of existing users who continue to use GYF after the changes
- **Linkage:**

Positive ROI for Advertisers:

A positive ROI means that companies post ads are earning more revenue from their ad campaigns on GYF than they are spending. Their confidence in the platform's ability to deliver value through effective ad placements grows. They are more likely to increase their ad spending on GYF. As a result, the new ads displaying strategy is effective and will increase ads revenue and profits of GYF.

Measurement

Application Exercise 4 – Identifying Key Drivers

- **Causal Business Model:**

- **Linkage:**

- Higher User Retention Rate:**

A higher user retention rate means that more users are staying engaged with GYF. More users staying on the platform means there are more opportunities for ads to be seen, which can potentially lead to increased ad impressions. In addition, with a larger user base, companies post ads on GYF have a larger audience to target, increasing the exposure of their ads to potential customers. More ad impressions and higher ad exposure directly contribute to the potential for increased ad revenue. The companies post ads are more likely to increase their ad spending on GYF. As a result, the new ads displaying strategy is effective and GYF's profitability can also improve.

Conclusion

<p>Problem Statement:</p> <p>The problem is that if ad-blocking continues to gain popularity, companies may stop placing ads on GYF, potentially causing a significant loss of revenue for the platform.</p>	<p>Strategy:</p> <p>Decreasing the overall number of ads and exclusively showcasing creative and non-intrusive advertisements to reduce user adoption of ad-blocking software, all while optimizing for effectiveness, cost-efficiency, and user experience.</p> <p>Strategy implementation: Definition of Metrics for Success, Assessment of Current Ads, Implementation of Quality Control, Collaboration with Advertisers, Monitoring and Analytics, Analysis of Advertising Revenue, User Education, Analysis of the Impact on User Satisfaction, and Backup Solution.</p>
<p>Effects:</p> <p>The anticipated effects of the proposed strategy are as follows:</p> <ol style="list-style-type: none">1. Reduction in Ad-Blocker Use2. Short-term Cost Increase:3. Long-term Sustainability and Improved Revenue:4. Better User Experience:5. Competitive Advantage:	<p>Measurement:</p> <p>To measure the success of the proposed strategy, we can use the following key performance indicators (KPIs):</p> <ol style="list-style-type: none">1. Ad-Blocker Adoption Rate2. Advertising Revenue3. Click-Through Rate4. User Churn Rate5. User Satisfaction Surveys6. Advertiser Satisfaction Surveys