Business Analytics Capstone Framework for Strategy

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Problem Statement

Problem Statement–

Describe the Problem Adblockers present to GYF

- *GYF is a large digital search engine, email/messaging and internet company which mainly consists of three core business units: GYF search, GYF mail & chat and GYF digital media. It generates its major portion of revenues by selling advertisements to other companies who place ads on GYF's digital services. The basic version of how this revenue is earned: GYF produces content, it gets people to click on that content, and they make money from the company who put ad around that content.*

- *However, Adblockers deletes advertisements from websites and hence poses direct threat to online advertising business model. Mobiles and Desktops are 2 fronts where Adblockers are challenging this model, mobiles being more significant of the two. After all, Mobile search queries on smartphones now outnumbers those on tablets and desktops. The main reason why these Adblockers are proving to be so popular is because they help users avoid data overages and get a cleaner web experience.*

- *First problem: GYF needs to make sure that its ad experience is additive to overall consumer experience. It needs to put its users first and make sure that their actual experience is not distorted with ads but rather enhanced with it. Addressing this problem will obviate the mere thought of installation of adblockers to a great extent. Therefore, how GYF manages to display ads in a way that user doesn't feel the need to install adblockers is an important question.*

- *Second problem: Most users install adblockers to improve their device's performance as ads use up too much data to load. Therefore, GYF has a challenge of working out better online advertising methodology. Google has tried to counter this problem with the help of its 'New Mobile Rules' and 'Accelerated Web Pages' features. Google's new mobile rules suggests a preferential search rankings method to sites optimized for mobile which proposes a test to analyze a URL in order to report whether the page has a mobile friendly design. Google's Accelerated Web Pages(AWP) feature allows for the creation of a stripped down web pages to load faster thereby helping the advertisers to get their ads seen more. Therefore, GYF needs to roll out such features as well, otherwise it will lose its advertisers to rival companies like Google.*

- *Third problem: Popularity of adblockers has risen to an extent where GYF needs to start thinking about a collaboration with them. Companies like Google, Microsoft, Amazon etc pays adblockers to be whitelisted. Therefore, how GYF come to terms with adblockers about whitelisting and maintain advertising prices is quite important.*

- *Fourth problem: There is a great probability that publishers may flee from the web and into apps where ads can't be blocked. Google propose 'Mobile App Indexing' feature which ensures consumers will be sent not just to the mobile app but to the appropriate 'page' within thereby increasing the likelihood of converting the search to sales. This way Google retains its advertisers and counters adblockers simultaneously. Therefore, GYF may also have to launch its own app store and introduce such a feature to counter adblockers.*

- *Fifth problem: GYF needs to work on ads that can't be sniffed out by adblockers like native adblockers or pre-roll ads on video content.*

Problem Statement–

Application Exercise 1 – Research Methods and Tools (Optional)

- *Use this space for to answer the questions set out in Application Exercise 1: 1. Given your definition of the problem faced by GYF, what type(s) of research will you employ to learn more about the strategy the DATA Team should pursue? 2. What research tools could you use to conduct that research?*
- *Given my definition of the problem faced by GYF, I will suggest all 3 approach in step by step manner. The DATA team should first pursue Exploratory research to understand different factors leading our customers to install adblockers. It should then pursue Descriptive research to understand market segmentation and customer segmentation. Finally, it should pursue Causal research to learn how the competitor's strategy worked out.*
- *Exploratory Research: The DATA team should conduct the research to list out all the factors and their contributions towards leading a consumer to use adblockers. Knowing what factors are responsible for the popularity of adblockers among users will help GYF in improving on those aspects. The contributions of these factors in form of percentages will help in directing the focus in systematic manner i.e. which areas GYF needs to work more on. The research tools preferable to conduct this research will be Internet communities (MROCs), customer self reporting and mobile surveys.*
- *Descriptive Research: The DATA team should understand the market segmentation as well as consumer segmentation. Market segmentation will help in learning about the share of the adblocker companies in market whereas the consumer segmentation will help in learning how users are distributed among these companies. It will be essential to learn this data to understand which adblockers poses more threat and which consumer base is their target audience. The research tools preferable to conduct this research will be traditional surveys, social media analytics and mobile data analytics .*
- *Causal Research: The DATA team should analyze how the other companies tackled adblocker problems, what strategies they implemented and how effective they played out to be. The research tools preferable to conduct this research will be traditional surveys and mobile data analytics.*

Strategy

Strategy
Describe your proposed strategy

- *In order to address the problems posed by adblockers, GYF needs to implement a strategy that has adaptive capability and shaping capability. This means that GYF needs to achieve ambidexterity and combine adaptive approach along with shaping approach to make the best of this situation.*
- *Ambidexterity is the ability to run different approaches to strategy in different parts of the organization. Ambidexterity increases the likelihood of strategy's success. In GYF's case ambidexterity will urge the need to hire a leader who will ask the right the questions, determine which approach applies to which part of the organization and coach and deploy the right people against the right approach to strategy.*
- *The leader hired to execute the strategy needs to involve right people, consider and integrate key variables or activities and implement an effective feedback system to keep a needed focus on the process of execution over time.*
- *Adaptive approach : The rapid advances in technology and rise of adblockers has made the online advertising industry unpredictable and not easily shapeable. Hence, GYF needs to follow the adaptive approach where it has to create variations of advertising methods (small sized webpages, preferential URL search ranking based on 'users first' mobile rules, native ads etc.), select which method works, implement that and scale that. GYF needs to respond with agility and transparency to changing needs and demands of the consumers and therefore it needs to forfeit its old mental model of tricking the users into seeing their ads. It needs to craft ads that people want to see and share.*
- *Shaping approach : GYF has to participate in this unpredictable environment created by adblockers and shape it to its advantage by co-evolving with its competitors. It needs to use the contributions of its competitors in this eco-system and co-evolve this collaborative system. It needs to optimize its ads for specific audience, context and delivery platform (like Google's 'Mobile App Indexing' feature or adblockers whitelisting options).*

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Strategy

- *Assuming myself as a leader of DATA team at GYF, I will hire Peggy Prospect as new Senior Associate Director for Digital Advertising Strategy. I think that Peggy Prospect will be a suitable candidate for the role of a second-in-command of the DATA team because of the following reasons:*

- *Her previous experience as a Digital Content Manager where she was responsible for solving issues posed by adblockers, will be a plus point as she may bring some valuable inputs.*

- *Her performance in Structured Interviews ensures that with her deep knowledge in digital advertising landscape and with her personality, she will be able to bind the team together and set the right objectives for them.*

- *Her work samples were a proof of her mindset for organization and efficiency, which is a much required trait for a leader.*

- *Her performance in Job Knowledge Test where she excelled at demonstrating strong familiarity with the tasks to be assigned in her new position, is a proof that she will adapt the company environment quickly.*

- *Her high score on Integrity Test shows that she is already aligned with company values and work ethics.*

- *Her scores on the Personality Test ensures that she will be able to adjust with the team better and quick.*

Effects and Measurement

Effects

Describe the anticipated effects of your strategy

- *If GYF achieves ambidexterity and implements a strategy with adaptive and shaping capability it will be able to retain its customers by building a positive and trustworthy relationship with them, it will be able to increase its revenue and Return On Investments (ROI) and it will be able to incorporate a new productive culture in the organization that will have new value drivers and focus on 'User First' principle.*
- *Customers : When GYF will switch from old mental model of invasive and exploiting online advertising to new model of specific audience targeting it will be able to establish triple win outcomes i.e. positive for people, brand and society. It will be able to turn into a customer centric company that produces an ad that resonates with people's feelings. Following the concept of R.A.V.E.S. (Relevant, Actionable, Valuable, Exceptional, Share-worthy) ads it will generate a trustworthy brand image and strengthen its relationship with its customers which will result in customer retention and attraction.*
- *Revenue : Optimizing its ads for specific audience, context and platform, GYF will be able to generate higher CTR (Click- Through Rate) and even higher sales conversion. It will also generate higher GRP (reach*frequency) which will prove to be significant factor in supporting the use of new online advertising model. Hence, GYF will have developed even more powerful model to generate marketing ROI and revenue.*
- *Internal Organization : GYF will have to adopt and develop the quality of ambidexterity which will increase its likelihood of becoming a strong and successful brand. There will be a change in leadership in order to diagnose and segment different approaches to strategy so that right people are coached and deployed sooner. In order to succeed with the new devised strategies GYF will have to become more focused on implementation and create a culture of execution. The need for adaptive and shaping approach requires that GYF creates a culture to support these strategies by creating behaviors and performance programs that become an integral part of an organization's way of doing things. It needs to manage execution as a change process in which argument and commitment are sought and rewarded.*

Effects

Application Exercise 3 – Designing a Deterministic Optimization Model

- *According to the Optimization Model Scenario provided, I need to allocate a training budget of $65000 among four training options which are Hard skills/external, Hard skills/internal, Soft skills/external and Soft skills/ internal. I have to allocate the budget based on productivity return rates which are proportional to the amount of money spent on training in following fashion:*

	Hard skills	Soft skills
Internal	0.2	0.6
External	0.7	0.4

- *Based on this information, my decision variables are as follows:*

   Shsi : Spending on Hard skills/internal ,   Shse : Spending on Hard skills/external,

   Sssi : Spending on Soft skills/internal ,   Ssse : Spending on Soft skills/external

- *Therefore, Total Net Productivity Increase can be estimated as follows:*

   0.2*Shsi+0.7*Shse+0.6*Sssi+0.4*Ssse   This is also the objective function that needs to be maximized

- *The constraints that this objective function is subjected to, are as follows:*

   Hard skills training program must achieve at least $20000 in the total net productivity increase: 0.2*Shsi+0.7*Shse >= $20000

   Soft skills training program must achieve at least $12000 in the total net productivity increase: 0.6*Sssi+0.4*Ssse >= $12000

   The internal program should achieve at least 60% of the net productivity increase realized for the external program:

   0.2*Shsi+0.6*Sssi >=   0.6*(0.7*Shse+0.4*Ssse)

   All spending needs to be non-negative: Shsi, Shse, Sssi, Ssse   >=   0

- *After entering the values and formulas in spreadsheets and using solver to obtain the maximum value of the objective function subjected to the given constraints, I obtained the following solution:*

   Shsi = $0.00, Shse = $38240.00, Sssi = $26760.00, Ssse = $0.00, Total Net Productivity Increase = $42820.00

   Productivity Increase by Hard skills: 0.2*Shsi+0.7*Shse = 0.2*0.00+0.7*38240.00 = $26760.00   > $20000

   Productivity Increase by Hard skills: 0.6*Sssi+0.4*Ssse = 0.6*26760.00+0.4*0.00 = $16060.00   > $12000

   Productivity Increase in all Internal skills against all External skills: (0.2*Shsi+0.6*Sssi)/(0.7*Shse+0.4*Ssse)
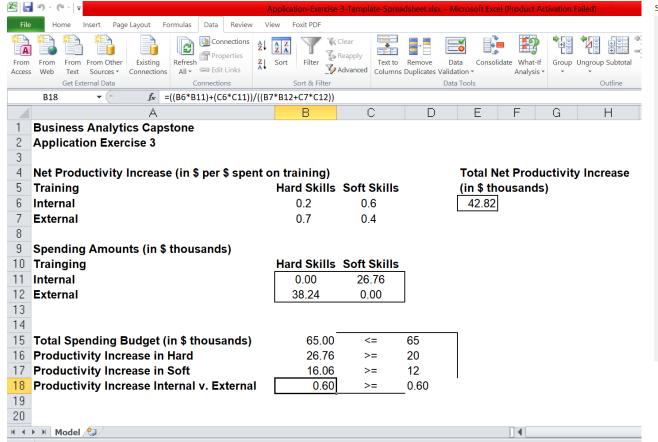
   = (0.2*0.00+0.6*26760.00)/(0.7*38240.00+0.4*0.00)

   = 0.6   >=   0.6

Effects

Application Exercise 3 – Designing a Deterministic Optimization Model

Measurement

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

- *What data GYF collects in order to assess whether its strategy is working or not is a major concern. It needs to retrieve a solid database in order to track the number of customers retained, to understand how much it has improved its brand image, to estimate the increase in revenue and Return On Investments (ROI) and to monitor the increase in productivity in the organization as a result of new culture incorporation. I will suggest the following measurement methods to retrieve these data for analysis.*
- *Customers : To understand how the new model of specific audience targeting is working out with the customers, GYF needs to retrieve the data regarding customer retention and customer recommendation . These can be measured with the help of active data collection (like itemized category online and mobile surveys), complaint analysis, ratings & reviews and Net Promoter Score (NPS). Also it needs to retrieve data regarding customer's activity with the help of tracking of page browsing data and cookie data. It will help in answering how much of a customer's activity is increased, how much time it spends on GYF product, how many pages he/she browses, etc.*
- *Revenue : To understand how it has progressed in the area of revenue, GYF needs to monitor its CTR (Click- Through Rate) and sales conversion. It will also gain insights with the monitoring of GRP (reach*frequency) data.*
- *Internal Organization : In order to measure whether employees of the companies have adopted the new value drivers of GYF which propels customer satisfaction, GYF needs to constantly keep track of its employee network and performance. With the help of survey data collected from mapping of collaboration networks and Organizational Network Analysis (ONA), GYF can analyze how its strategy is changing the company atmosphere and how much the employees are focused towards establishing the new goals set by the company. Also, designing the performance evaluation based on new objectives set by GYF and analyzing the employee's performance based on these measures will help in realizing how much are the visions and goals of the employee is aligned with new company goals.*

Measurement

Application Exercise 4 – Identifying Key Drivers

- *The crux of my problem statement revolves around the idea of customer satisfaction. Customer satisfaction is the main reason behind the rise of adblockers as the customers are finding the ads by GYF as invasive and exploiting. These ads are interfering with customer experience and deteriorating their device's performance.*
- *Therefore, I feel that following hypothesis is explicitly linked to my strategy in a causal way:*
  > *"When GYF will forfeit its old mental model of tricking the users into seeing their ads and start following the principle of 'Users first' where it optimizes its ads for specific audience, context and delivery platform; It will boost its customer satisfaction level. With increase in customer satisfaction, the need for adblockers will be obviated to great extent."*
- *Keeping 'Customer Satisfaction' as my main concern, I would like to propose the following three key drivers for my 'causal business model':*
  - *(1) Relationship : It implies how our customers perceive us as a brand while thinking about using our products. If customer feels positive about our brand then it is surely because he/she is satisfied with our products and services.*
  - *(2) Trust : It implies how much a user trusts us with his/her data and privacy.*
  - *(3) Troubleshooting : It implies whether customer thinks we cater to their needs and are helpful whenever a troublesome issue arises in our product.*
- *Based on these key drivers, I would like to be concerned with following outcomes:*
  - *(1) Retention : Retention here indicates how many customers are retained from installing any adblocker software. Keeping a track of how many customers has been retained over time will help in assessing how satisfied our customers are, and it will also indicate whether my strategy is working or not. Hence, it is good way to measure all the key drivers.*
  - *(2) Recommendation : After implementing the strategy, retrieving customer feedback will help in assessing whether we've hit the right spot or not. Getting the customers to answer questions like 'how likely are you to recommend GYF to your friends?', 'How do you like our new ads format?', etc. with the help of short surveys (like one question pop-up before the user exit the browser) will help in serving the purpose. Survey designed to get a rating (scores like Net Promoter Score i.e. NPS) for all the key drivers will help in improving on the weak parts.*
  - *(3) Click-Through Rate or CTR: CTR analysis for the new strategy will help in assessing how much of each key-drivers has been targeted correctly by our strategy. The percent of people who clicked the ad against who saw the ad is what defines a CTR.*
- *In order to verify the linkages between the first two steps I will run a A/B test to compare CTR, GRP (reach*frequency) and sales in old online advertising model and new online advertising model. Higher CTR and their sales conversion will ensure that more number of customers are being retained. Higher CTR and higher GRP will indicate the increase in customer satisfaction and product recommendation. I will also run Gap Analysis in order to get a feedback from the managers to understand whether they are able to adapt to the new notion of online advertising or not. This will help me in bridging the gap between my employees and my customers and help in assessing how much 'Trust' and 'Relationship' are contributing towards customer satisfaction.*

Conclusion

- *PROBLEM STATEMENT:*

- *GYF is a large digital search engine, email/messaging and internet company. It generates its major portion of revenues by selling advertisements to other companies who place ads on GYF's digital services. The basic version of how this revenue is earned: GYF produces content, it gets people to click on that content, and they make money from the company who put ad around that content.*
- *However, Adblockers deletes advertisements from websites and hence poses direct threat to online advertising business model. The main reason why these Adblockers are proving to be so popular is because they help users avoid data overages and get a cleaner web experience.*
- *First problem: GYF needs to make sure that its ad experience is additive to overall consumer experience. It needs to put its users first and make sure that their actual experience is not distorted with ads but rather enhanced with it.*
- *Second problem: Most users install adblockers to improve their device's performance as ads use up too much data to load. Therefore, GYF has a challenge of working out better online advertising methodology. Google's Accelerated Web Pages(AWP) feature allows for the creation of a stripped down web pages to load faster thereby helping the advertisers to get their ads seen more. Therefore, GYF needs to roll out such features as well, otherwise it will lose its advertisers to rival companies like Google.*
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- *Fifth problem: GYF needs to work on ads that can't be sniffed out by adblockers like native adblockers or pre-roll ads on video content.*
- *Given my definition of the problem faced by GYF, I will suggest all 3 approach in step by step manner. The DATA team should first pursue Exploratory research to understand different factors leading our customers to install adblockers. It should then pursue Descriptive research to understand market segmentation and customer segmentation. Finally, it should pursue Causal research to learn how the competitor's strategy worked out.*
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- *Causal Research: The DATA team should analyze how the other companies tackled adblocker problems, what strategies they implemented and how effective they played out to be.*

Conclusion

- *STRATEGY:*

- *In order to address the problems posed by adblockers, GYF needs to implement a strategy that has adaptive capability and shaping capability. This means that GYF needs to achieve ambidexterity and combine adaptive approach along with shaping approach to make the best of this situation.*
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- *EFFECTS:*

- *If GYF achieves ambidexterity and implements a strategy with adaptive and shaping capability it will be able to retain its customers by building a positive and trustworthy relationship with them, it will be able to increase its revenue and Return On Investments (ROI) and it will be able to incorporate a new productive culture in the organization that will have new value drivers and focus on 'User First' principle.*
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Conclusion

- *MEASUREMENTS:*

- *GYF needs to retrieve a solid database in order to track the number of customers retained, to understand how much it has improved its brand image, to estimate the increase in revenue and Return On Investments (ROI) and to monitor the increase in productivity in the organization as a result of new culture incorporation. I will suggest the following measurement methods to retrieve these data for analysis.*
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- *MEASUREMENTS:*

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THANK YOU!!!

- *Thank you for taking time to review my business analytics capstone project slides and participating in my peer review. I hope my presentation was to the point and I addressed the adblocker problem systematically and clearly.*