Luis Arinobu Okamoto Escobedo

BUSINESS INTELLIGENCE / BUSINESS ANALYST, LEAD

BUSINESS CASE

1. We just launched the credit card to market. As you might be aware, everyone was extremely busy planning and developing the product, but no one thought of coming up nor monitoring the key performance indicators of the business. **What would be the key performance indicators you would come up as the most important to monitor a credit card business? How often would you suggest such indicators must be monitored?**

    I think that the top 6 indicators we should focus on are:

    - **Average Revenue per Card:** This will tell us the average revenue each card is generating for us. A monthly monitoring on this indicator will help us understand how our credit program is progressing
    - **Average Margin per Card:** This indicator should help us see the overall state of cards in circulation. We should always aim for a high average margin per card; a weekly analysis on pricing, marketing strategies, and budget costs should tell us relevant information about our profitability
    - **Churn:** Due to the fact that there are many credit cards on the market, what we want is to be our customer's number 1 credit card in his/her wallet. This indicator will tell us the rate at which we are keeping our customers using the credit card, I think that a monthly monitoring of our customer's needs will tell us if we are giving the right incentives and rewards for using our product
    - **Net Promoter Index:** This type of indicator will help us understand the loyalty and satisfaction of our customers in order to recommend our services or products to other potential users. The fact that feedback is very important in this indicator, we could send daily surveys to random customers.
    - **Protection from Defaults:** One of the biggest risks when developing a credit card is customers defaulting on their loans. To prevent that some card issuers will not fully honor their debt, we should be aware by the 90 day overdue point.
    - **Customer Acquisition Cost:** This will tell us how much money it will take us to acquire a new customer, it is a key expense that should be kept as low as possible. To keep our cost low we should audit and analyze the true cost of acquisition. Weekly strategies such as implementing data models could be very helpful to improve the targeting acquisition efforts

2. Dealing with diverse stakeholders is difficult. Where one might interpret a concept in a way, another one might differ from such interpretation. Let's take for example the concept 'dormant': some stakeholders might interpret the dormant customer as one that has not done any transactions in 6 months, where another one might say it takes only 4 months to reach this state. **Propose a problem resolution strategy with the stakeholders. How would you deal with this issue? Which facts would you present?**

   My proposal would be to make an overall analysis on our historic data, find the average number of days/weeks/months in which the majority of customers have not done any transactions. The result of this calculation would define our interpretation of the concept "dormant".

3. It is a common practice to have many systems scattered all over: where one might be hosting the app, others might be hosting models needed for daily operations. This usually benefits usability over scalability. Nevertheless, data centralization is crucial for data exploitation. For simplicity, imagine there are 4 systems:
   - The first system hosts the app. It generates data that is stored in an internal database (ignore the database's architecture for now). Every time the user interacts with a screen, clicks a button, or opens the app, this is stored as an event.
   - The second system hosts the risk model. Every time a customer asks for a credit, the system retrieves the risk data from the credit bureau and evaluates whether the customer is prone to be a defaulter.
   - The third system hosts the customers information. Here, unrestricted information is hosted. This database contains the name, address, email, etc…
   - Finally, the fourth and last system hosts all the payments information, this means, all the information related to the usage of the credit card: swipes, payments, recurrent payments, credit line, etc…

   All systems share a unique identifier for all of our customers. This is the key that allows data to be joined on other databases. **What should we do to centralize the data in order to display it in charts for KPI monitoring? What would you propose the data governance strategy should be?**

   I think that, due to the fact that we are dealing with sensitive financial and personal information, a defensive data strategy must be implemented. We, as a fintech, should focus on minimizing risks such as fraud and theft; our principal activities should be:
   - Identify and govern authoritative data sources
   - Compliance mandates such as data privacy and financial reporting laws

   The strategy should identify and classify the existing data, implement complete records of information resources with relevant metadata, and organize the data by relevant categories. We must choose a storage option that centralizes our metadata for our different collections across platforms and gain effective governance, this will help us create the data catalogs needed to define our critical data elements and how we can adopt terms around our data. All of these 'steps' will help us create a centralized governance model.

Luis Arinobu Okamoto Escobedo

4. Download the attached .csv file. Preferably upload it to a SQL DB and query your way through the challenge.
    a. This database contains credit card information and transactions from multiple customers. Use your favorite data visualization tool / programming language to explore the data and present the results [R, Python, PowerBI, Spotfire, etc…]
        The selected tool was PowerBI
    b. Display and plot the information you consider to be the most relevant for a Credit card business. You could consider the following departments: Operations, Growth (Marketing), Finance, Customer Service, and Product
    c. Use your imagination to best describe the data with charts and tables. Select those key performance indicators you consider that drive the business. **Present recommendations on those indicators that, to the best of your knowledge, might be low or could be boosted.**
    d. Think outside the box. If you feel that, extra information might be needed to support your arguments, include it in the folder: Power Point presentations, word documents, etc…
        PDF presentation
    e. Uploading your results to a git repo is desired but not mandatory
        https://github.com/kamo28/RappiChallenge