1. 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?

The company's main interest is that the credit card business remains profitable and that it continues growing at an acceptable rate. Secondly, the company is interested in monitoring the customer's satisfaction to guarantee the continuity of the business. Based on that logic, we can define the following categories of KPIs:

Main	Concept	Name of the KPI	Definition
Category			
Revenue	How many cards have been activated and how many cards have been closed?	Growth rate (GR)	GR = (Activated cards – Closed cards) / Total number of cards
	What is the average revenue per card?	Average Revenue Per Card (AR)	AR = Total revenue / Number of cards
	How much is the company earning from fees? (All kinds of fees)	Average Margin per Card (AMC)	AMC = (Earnings – Costs)/ Number of cards
Cost	What is the customer acquisition cost? (Marketing + origination costs)		
	What is the operation cost per card?		
Customer Satisfaction	How satisfied is the customer with our product?	Net Promoter Score or other satisfaction indicator.	See NPS methodology.

The company may need additional KPIs in a second stage of the project to understand the specific reasons for the non-optimal performance of the company.

These indicators should be monitored weekly in order to implement actions that help the company reach its monthly goals.

2. Propose a problem resolution strategy with the stakeholders. How would you deal with this issue? Which facts would you present?

I would divide this problem in two different stages:

1. Data gathering and concept definition.

As the question suggest the best way of resolving this conflict is using the data we have to obtain the facts. These facts can then be presented to the stakeholder to reach an agreement.

As the question suggests, the best way to resolve this conflict is to use the data we have to obtain the facts. These facts can then be presented to the stakeholders to reach an agreement.

The concept of dormant is helpful to the company because it allows it to act and reactivate customers that may remain dormant otherwise.

The result of this investigation can be expressed in the following form:

Probability of use (%) / Time of inactivity: 5% / 6 months.

2. Presenting the facts and conciliation

After the data has been gathered, we can present it to the relevant stakeholders and reach an agreement.

3. What should we do to centralize the data in order to display it in charts for KPI monitoring?

We have two possible scenarios:

a) The data is used only for KPI reporting.

The first step would be to understand the long-term goal and strategy of the company regarding data. If the data is only going to be used for weekly or monthly KPI reporting, then querying the data when needed using SQL should be enough. Since all the databases contain a unique identifier for the customer it is possible to use join functions to perform the queries and organize the data.

This is the cheapest and easiest way of doing the reporting without significant investment from the company.

b) Centralized data is used for real time monitoring or consumed by other applications.

On the other hand, if the company needs to monitor the KPI's in real-time or to access it frequently for use in other systems, then the company may have to consider a solution to centralize and store the data. Multiple solutions can be implemented to consolidate the data, like data lakes, that allow architecture flexibility.

These solutions are expensive, and a business case should be done to evaluate if it is feasible.

What would you propose the data governance strategy should be?

Before defining or proposing data governance strategies more information is needed about the company needs and the specific characteristics of the data.

We can identify the following categories of questions that need to be answered:

Compliance	Data Accessibility	Data Quality	
 Which databases contain personally identifiable information? (We know database 3 contains unrestricted information but it is not clear for the other three) Which databases are subject to national and international regulations? Which databases contain sensitive proprietary information? 	 Who is the current owner of each database? How many users have/need access to each database? Are there any security measures in place? Is there any control over database users and accesses? 	 Is there a data catalogue for each database? Are there any processes to verify the quality of the data? Are there any reports regarding the quality of the data? 	

After answering these questions, we can establish a data governance strategy. The following scheme is a proposal that may or may not be applicable depending on the answers to the previous questions:

