

## Practice case

### Background

- Bank X is considering implementing a call diversion mechanism; this mechanism will cause all phone calls made to the bank's branch phone numbers to be re-directed to the bank's call-center.
- In the call-center, each call will initially be routed to a computerized response system (IVR), which will be able to provide basic information services such as balance inquiries, exchange rates, etc.
- Transactions and/or more complicated requests will be handled by a human call-center representative.
- Under this system, bank customers will not be able to reach their "regular" bank clerks via the phone, but will have to conduct all of their phone transactions with the call-center or simply by physically visiting their branch.
- The bank wants to implement this project to free-up branch clerks' time, in order to increase the number of additional services/products sold by branch clerks to existing customers.
- However, there are concerns that the implementation of this system might upset some of the customers, used to working with "their" regular clerks, and some may even decide to leave the bank as a result.
- The bank's management has asked you to analyze if this initiative makes a good business case.

## Question 1

Which four of the considerations listed below should the bank take into account when analyzing the advisability of implementing this system?

### Considerations

- A. The cost of expanding the call-center (equipment, overheads etc.);
- B. The average annual cost of employing a call-center representative;
- C. The average annual cost of employing a branch clerk;
- D. The average cost of acquiring an additional customer by a branch clerk;
- E. The percentage of customers who are expected to leave the bank if the system is implemented;
- F. The average profit from the sale of an additional product/service to an existing customer by a branch clerk;
- G. Total annual revenues from the sale of products & services by the call-center.

### Answers

- 1. A, B, E, G
- 2. B, C, D, E
- 3. A, B, E, F
- 4. D, E, F, G

## Question 2

The bank has decided to perform a trial implementation ("pilot") of this system in 10 of its branches. Calculate the expected addition to these branches' annual revenues, due to freeing up of some of their clerks to sell additional products & services instead of answering the phones, under the following assumptions:

Description	Unit	Figure
Number of average hours per day a branch clerk spends answering customer telephone calls	Hours	2.5
Average annual revenues from the sale of an additional product/service to an existing branch customer	Euro	350
Average number of sales per hour for branch clerk	Sales	0.3
Total number of branches in the bank	Branches	120
Average annual number of work days per branch clerk	Days	230
Average number of branch clerks in the 10 pilot branches	Clerks	15
Average number of customers per branch in the pilot branches	Customers	3000

## Answers

1. About 9 million Euro
2. About 900 thousand Euro
3. About 109 million Euro
4. About 30 million Euro



## Question 3

Assuming the pilot project is implemented in the 10 branches mentioned above, when – if ever – will the project become profitable, given the data included below?

## Data

Description	Unit	Figure
Average annual cost of employing a branch clerk	Euro	0.25m
Expected addition to a pilot branch revenues due to pilot project implementation	Euro	14.6m
Expected decrease in pilot branch revenues due to customers leaving the bank because of pilot project implementation	Euro	3m
Average cost of acquiring a new customer	Euro	1500
Average number of branch clerks in the 10 pilot branches	Clerks	15
Cost of installing the required equipment and systems in the call-center	Euro	21.7m
Average annual revenues for a pilot branch	Euro	19m
Annual cost of employing the additional representatives needed in the call-center in order to implement the pilot project	Euro	3.5m
Annual cost of maintenance and license for the new system required in the call center	Euro	0.4m

## Answers

1. At the end of the first year
2. At the end of the second year
3. At the end of the third year
4. Never – the project will always be unprofitable.

## Question 4

In order to minimize the number of customers that will leave the bank following the system's implementation, the bank has decided to improve call-center service levels and reduce waiting time by adding representatives to the call-center. Listed below is a table showing the expected impact of adding more representatives to the call-center on the expected percentage of customers that will leave the bank following the system's implementation:

Number of additional representatives	Expected customer churn rate (%)
1	4.5%
2	4.0%
3	3.5%
4	3.0%
5	2.5%
6	2.0%
7	1.5%
8	1.0%
9	0.5%
10	0.0%

In light of the data in the table above and the data provided below, what is the number of call-center representatives the bank should add in order to reach an optimal cost/benefit ratio, i.e. – to reach the biggest difference between the revenues the Bank will generate from reducing customer churn rates and between the cost of adding more call-center representatives?



## Data

- There is a total of 30,000 customers in all 10 pilot branches;
- Without adding any additional call-center representatives, the customer churn rate is expected to be 5 percent;
- The call-center currently generates 15 million Euro in revenues per year;
- The average annual income from a pilot branch customer is 2,000 Euro;
- The annual cost of adding a call-center representative is 0.4 million Euro;
- The annual cost of maintenance & licensing for the call-center system is 0.4 million Euro.

## Answers

1. Three call-center representatives
2. Five call-center representatives
3. Nine call-center representatives
4. Never – each additional call-center representative costs more than he/she generates in revenues.

## Answers

1 - 3

2 - 1

3 - 3

4 - 4