CHITTAGONG UNIVERSITY OF ENGINEERING AND TECHNOLOGY

Report on
Feasibility analysis of the proposed system

Course Code: CSE-354
Course Name: System Analysis and Design

Submitted To:

Dr. Kaushik Deb
Professor
Dept. of CSE, CUET

Sabiha Anan
Assistant Professor
Dept. of CSE, CUET

Submitted By:

Muhammad Mubinur Rahman (1804080)

Md Nahid Imtiaz (1804101)

Md. Ali Hasan Emon (1804104)

Abu Saiyed Mohammad Sadat (1804105)

MD Rakib Uddin (1804107)

Remark

Table of Contents

1.Introduction

The Feasibility Analysis Report is a document that assesses potential solutions to a business problem or opportunity and determines which of these are viable for further analysis. The system objectives outlined during the feasibility study serve as a basis from which the work of the system design is initiated. A feasibility analysis aims to objectively and rationally uncover the strengths and weaknesses of an existing business and proposed venture, opportunities and threats present in the environment. In order to find a feasible solution for a system, some distinct steps should be followed. First, the goals and subgoals of the proposed system need to be defined. After that, the goals and subgoals from the verbal statement of goal have to be quantified. Then, it should be checked, whether it is possible to meet these goals or not. After that, the cost of meeting each goal is determined and finally, the cost-benefit is calculated after being quantified.

2. Objectives

a. To execute a successful feasibility study.

b. To formulate project goals and quantify goals.

c. To examine alternate solutions and evaluate proposed solutions.

    i. Technical feasibility.

    ii. Operational feasibility.

    iii. Economical feasibility.

d. Cost-benefit analysis.

e. Documenting feasibility report.

3. Deficiencies of the current system

a. Not enough updated PC's and internet speed that is required in order to conduct everyday tasks more precisely and effectively.

b. Customers are still lining up even for the tasks that can easily be done via Janata Bank online services. They are still hesitant about the security of the online transactions.

c. There is no IT sector in the bank. So, the bank is facing some issues like: Customer service, security of online banking

4. Proposed solution

We provided two solutions on major deficiencies:

Solution A: Fixing bugs and adding new features in the existing online banking facility.

Solution B: Developing IT ==sector== in Janata Bank Limited at Pomra Branch.

5. Feasibility analysis

5.1 Feasibility analysis of solution A

Solution A: Fixing bugs and adding new features in the existing online banking facility.

Reason for this solution:

Janata Bank has significantly enriched and secured online banking services. But the customer reviews showed great disappointment because of bugs and unavailability of some much needed features. Along with these, mass people are still hesitant towards using online banking services regarding transactions of a large amount of money. So, we need to work on enhancing the sense of security to customers and thus increasing customer participation.

Goals of Proposal:

- ● To achieve maximum customer satisfaction.
- ● To reduce the cost of establishing a branch of a bank in an area of least significance where online banking can serve the purpose.

Technical Feasibility:

  a. Improving the security system.

  ➢ Available from security software provider companies.

  b. Introducing new marketing strategies.

  ➢ Can be executed with the help of a digital marketing agency.

c. Fixing bugs and adding new features.

    ➢ Available from software development companies.

Operational Feasibility:

a. Hiring a security expert to ensure the security of the transactions from cyberattacks.

    ➢ Manageable

b. Forming an advertising committee for organizing several campaigns.

    ➢ Manageable

Economic Feasibility:

Investment:

Cost of developing security system	Tk. 1,000,000
Cost of implementing marketing strategies	
➔ Media marketing	Tk. 1, 050,000
➔ Digital marketing agency	Tk. 500,000
Cost of fixing bugs and adding features	Tk. 70,000
Total Investment:	Tk. 2,620,000

Cost per year:

Salary of security experts	Tk. 500,000
Cost for organizing campaign	
➔ Campaign	Tk. 150,000
➔ Bonus for committee members	Tk. 50,000
Total cost:	Tk. 700000

Calculating Payback Period:

Total investment = Tk. 2,620,000

Total cost (per year) = Tk. 700,000

Total expected income (per year) = Tk. 1,500,000

Net benefit (per year) = Total income – Total cost

$$= Tk. (1,500,000 - 700,000) = Tk. 800,000$$

Payback period = Investment / Net benefit

$$= 2,620,000 \text{ TK} / 800,000 = 3.2 \text{ years} \sim 3 \text{ years } 2 \text{ months}$$

5.2 Feasibility analysis of solution B

Solution B: Developing IT sector in Janata Bank Limited at Pomra Branch, Chittagong.

Reason for this solution:

Implementing IT systems and services can help banks streamline operations, reduce costs, enhance security and customer satisfaction, and stay ahead of the competition in a rapidly changing digital landscape in Janata Bank Limited at Pomra Branch.

Goals of Proposal:

- To avoid the manual system.
- To improve efficiency and security.
- To help data analysis and revenue growth of the bank.

Technical Feasibility:

a. Additional PCs and other components are needed for the IT sector.

   ➢ Manageable

b. Space is required for the above stated section.

   ➢ Manageable by partitioning a section.

c.   Improving the software system.

> ➢ Available from software provider companies.

Operational Feasibility:

a. Hiring efficient officers and training them for handling foreign IT sector.

> ➢ Available training is given by Bangladesh Bank at free cost.

Economical feasibility:

Investment:

Cost of PCs and other components	Tk. 450,000
Cost of infrastructure	Tk. 50,000
Total investment	Tk. 500,000

Cost per year:

Salary of employee	Tk. 1,800,000
Electricity and other bills	Tk. 100,000
Total cost	Tk. 1,900,000

Calculate payback period:

Investment = Tk. 500,000

Total Cost = Tk. 1,900,000

Total expected income = Tk. 2,000,000 (per year)

Net benefit = Total Income - Total Cost

$\qquad$ = Tk. (2,000,000-1,900,000) = Tk. 100,000

Payback period = Investment / Net benefit

$\qquad$ = 500,000/100,000 = 5 year

6. Conclusion

We conducted research on Janata Bank Limited (Pomra Branch) and assessed their issues, lackings and weaknesses of the bank. Following our investigation, we attempted to discover a solution for our system that was operationally, economically, and technically feasible. The summary of solutions is as follows-

- Solution A is technically and economically feasible.
- Solution A has more benefits and the payback period is less.
- Solution B is technically and operationally feasible.

But the payback period of solution B is more than solution A. Hence our suggested solution is A.