MS809 Enterprise Systems

Consulting Challenge 1

The Reliable Finance Company - Case Study

Background to the Business

The Reliable Finance Company started in a small mid-western town in the 1890's, lending money to farmers and small businessmen. Reliable Finance assumed risks that the commercial banks were unwilling to take and charged slightly higher interest rates.

At the current time, Reliable Finance has 178 branches, spread from Denver to Cleveland, and from Detroit to Houston. The company is committed to making loans to individuals to assist them in making such purchases as automobiles, appliances, and home improvements.

Ed Clarkson, grandson of its founder, along with a new management team, manages the company. They have decided on a growth plan that would expand the number of RFC branches to 400 within the next three years, and to 1,000 branches within another five-year period after that. The locations will be selected in growing suburbs – especially in Texas, Florida, California, and Arizona.

These expansion plans will clearly require an enhanced information system to support transactions processing for loans, payments, and settlements. The President has asked your consulting firm to develop recommendations for the re-design of the existing consumer loan system.

Analysis of the Loan Application and Screening System

The current systems to be analysed are the loan application and screening system. An overview of the payment processing system, the delinquency analysis and the settlement accounting system are also provided as background.

As indicated earlier, the company currently has 178 branches. Some of the activities for loan processing, payment processing, and reminder processing are handled by the branches, and some of these activities are handled by the home office, which is located at Centerville, Indiana.

Loan Application and Loan Screening Process

Each RFC Branch has a manager, several customer service advisors, and clerical staff. Applicants for loans complete a Loan Application Form, with the assistance of a customer service advisor. The Branch checks local income and bank references, and the Branch Manager gives the application a preliminary screening prior to sending the materials to the

home office in Centerville. At the Home Office, staff in the Screening Department check to see if the loan applicant has defaulted on any prior loans with Reliable Finance and also checks on outstanding and delinquent loans to make certain that all current loans held by the applicant are in good order. Finally, the Screening staff obtains an external credit report from TRW to determine the applicant's creditworthiness based upon other external loan activities. Based upon data from the Branch and Home Office credit searches, the Loan Officer in the Home Office determines whether to accept or reject the loan application.

If the loan application is accepted, the Loan Department generates a check for the amount of the loan, and sends a confirmation of the loan's acceptance to the Branch. Loan paperwork is then sent to Accounting, which sets up a new loan account in the Outstanding Loans File. The Accounting Department now prints a Voucher Booklet, which is sent to the Branch. Once the Branch receives the letter of acceptance and the Voucher Booklet, it notifies the customer to come into the Branch and collect the check and Voucher Booklet.

The Branch keeps copies of the vouchers in a local Outstanding Loans file for each customer. These voucher copies are organized in order by due date. In this way, the Branch Manager can see what payments are due each day. The information systems department produces monthly management reports summarizing new loans by branch.

When a new loan is confirmed, the Branch also sets up an index card file for each customer, with details such as name, address, loan ID, and principal amount. This information is not shown on the voucher copies, and it is often useful in identifying accounts to which payments should be applied.

Payment Processing Activities

Once the loan is set up, customers can pay in three different ways. First, customers can bring their payments into the branch in the form of cash, check, or money order. Second, they can mail their payments to the Branch. The Branch verifies their loan ID, if necessary by checking the Customer card file, and updates the loan Outstanding Loans file by pulling the voucher copy corresponding to the payment and stamping it "paid" and then filing it in the Paid Vouchers file in sequence by Loan ID and due date sequence.

The actual payments are then batched and deposited in the Branch bank each afternoon. The Home Office is notified by means of an APR (Advice of Payment Received), which is filled out for each payment and mailed to the Home Office.

Customers may also pay the Home Office directly. If they do so, the Home Office Payment Processing Department verifies that each payment is complete, by checking the enclosed voucher. If the voucher is missing, the payment-processing clerk uses a printout of the central Outstanding Loans File to look up the Loan ID corresponding with the correct account. Then the Branch is notified of the payment by means of an APR (Advice of Payment Received), which is then mailed to the Branch.

The details of the payment are used to update the Outstanding Loans file in the Home Office. Each evening, a batch payment-processing run is used to update all the accounts centrally, based upon payments received during that working day. In addition, the Branch uses the

APR's from the Home Office as well as its own internal records of payments that have been sent directly to the Branch to update its own local Outstanding Loans File.

Payments made directly to the Home Office are batched and sent directly to the Home Office bank. The payments processing system produces a payment report for the Accounting Department and a branch-by-branch payment report for each Branch Manager.

Delinquency Analysis System

On a weekly basis, the delinquency analysis system is run. It checks the Outstanding Loans file in the Home Office and determines if payments are overdue. It generates an Aged Trial Balance Report which indicates which payments are 15, 30, 45 and 60 days overdue. When a payment is 15 days overdue, a polite First Reminder is sent. When a payment is over 30 days overdue, a Second (less polite) reminder is sent. Four reminders, with increasing degrees of insistence, are sent. All of these reminders are computer-generated. After the loan becomes 60 days overdue, it is moved to the Collections Department, and collections agents follow up at that time.

Settlement Accounting System

From time to time, customers want to re-pay a loan before it becomes due. In these cases, the customer requests a settlement figure, which is the amount required to settle the outstanding balance on the loan. If the request is urgent, the Branch Manager will phone the request to the Home Office. The information systems department now prepares a settlement run, which is processed nightly, with the urgent request for the settlement balance. The settlement balance is sent back to the Branch Manager the next morning.

Current Problems

At the current time, Reliable Finance is planning to expand the number of branches from 187 to 400 in the next three years, and to a target of 1000 over the next five years after that. In order to accommodate expansion plans, the current system will need to be streamlined, modified, and enhanced. Some of its current problems are:

- The various steps in the loan approval process typically take 10-13 working days. In many of the cities where RFC has branches, commercial banks approve or disapprove loan applications in 2-3 days. This means that some of the best loan candidates (e.g., those who are the best credit risk) obtain approval for their loans at least a week before RFC gets around to approving them. RFC is losing some of its best loan prospects to the commercial banks.
- About 80 percent of the payments are made to a Branch, and the rest are mailed to the Home Office. Of the payments that are mailed, the payment voucher from the Voucher Booklet is missing in about half the cases. This does not matter so much at the Branch, because the Branch maintains a local customer card file with the name and loan ID. However, at the Home Office, it is more difficult to trace payments. At the current time, incoming payments without an accompanying voucher are identified by checking against a printout of the Outstanding Loans File. However,

unidentified payments are sometimes APR'd to the wrong branch, and the entire process causes more clerical work and error correction.

- The bottlenecks in processing payments trigger additional problems. Considerable clerical overhead is caused by situations where people do not pay until 10 days after their due date, and because of various delays, their payment does not actually get posted to the Outstanding Loans file until after the Delinquency Analysis run has sent them their first reminder. When they call the Branch to protest receiving a reminder, the Branch has to call the Home Office and trace their payment. Forty-four people are currently tied up in the Customer Service section at the Home Office, and much of their time is spent dealing with late and missing payment matters.
- Throughout the system, there are instances of excessive clerical overhead. In 129 of the 187 branches, a full-time clerical person was engaged in maintaining the local Branch loans file, in pulling voucher copies, in recording payments, and in making out APR's. In the other 58 branches, these activities take between 2 and 5 hours per day.
- Since the Outstanding Loans file is always several days out of date, it is often difficult to isolate loans that are genuinely delinquent until it is too late. About 2.5 percent of all loans are never repaid. Last year $4,795,000 was written off as uncollectable. Although processing delays account for not flagging late payers sooner, management feels that RFC could do a much better job of weeding out potential delinquents during the initial approval process. To do this, RFC wants to build a picture of the potential delinquent, including age, occupation, income, family size, location, mobility, and a host of other criteria yet to be specified. A "delinquency profile" will aid in identifying "high- potential for delinquency" accounts. This profile can be developed, maintained, and modified by Operations Research personnel on an ongoing basis.
- Because of error and adjustment activities, it is rarely possible to balance the books for month end before the 12th of the succeeding month. This greatly complicates planning for cash flow and frequently requires RFC to borrow more money that it really needs, and at higher interest charges.

Assignment Questions/Requirements:

Your consulting team is challenged to analyse the current loan systems described above and make recommendations on a redesigned system. Your primary focus should be on the Loan Application and Approval system, however consideration should be given to how this integrates with the other systems mentioned. Your team is required to prepare a report and presentation for the President and Board of Reliable Finance focusing on the items below:

1. Analyse the main problems with the current system
2. Identify overall business objectives to guide the system redesign
3. Develop a re-engineered model of the (new) proposed system (Loan Application and Approval)
4. Identify appropriate performance metrics (KPIs) for the redesigned processes

Deliverables:

1. Report outlining your recommendations for BPR, including a redesigned Process model (2000 words max).
2. 5 minute presentation summarising your pitch (delivered during workshop in week 5).

Students may complete this assignment in a group of not more than 5 people.

Deliverables should be uploaded to a dropbox on Blackboard by **5pm Friday 17th February**.
This assignment is worth 20% of course marks.

FIGURE 2-2 Process Model of the Current Loan Application Screening System