

2.3 Information Technology Audit of Loan Accounting System in Orissa Rural Housing and Development Corporation Limited

Highlights

The system did not generate a system log in the absence of which it was difficult to fix responsibility for manipulation of data.

(Paragraph-2.3.5)

There were deficiencies in data validation and input controls which led to many irregularities like undue benefit to loanees as well as non-recovery/delayed recovery of loans.

(Paragraphs-2.3.7 and 2.3.8)

Lack of proper process controls resulted in irregular sanction and disbursement of loans as well as incorrect calculation of interest.

(Paragraph-2.3.9)

Weak control mechanism in the system made it unreliable and completely vulnerable to misuse.

(Paragraph-2.3.10)

Rules and regulations governing sanction and disbursement of loans were not incorporated in the application system resulting in non-collection of pre-payment charges, less collection of interest, etc.

(Paragraph-2.3.11)

Introduction

2.3.1 Orissa Rural Housing and Development Corporation Limited (ORHDC), incorporated in August 1994, is in the business of financing, promoting and developing rural and urban housing finance related activities. Realising the importance of computerisation, the State Government at the time of incorporation of the Company, had emphasised that a modern management system including computerisation should be adopted for increasing the efficiency of the organisation. The Company has floated different loan schemes in rural and urban housing sector and computerised all these loan schemes except the scheme related to project finance.

The Company is headed by a Managing Director and assisted by a Financial Advisor and Chief Accounts Officer. Besides its Head office at Bhubaneswar, the Company had ten district offices, which are managed by Assistant Administrative Officers. The overall development, maintenance and updation

in the Information Technology (IT) systems are looked after by one System Analyst, who is assisted by two Assistant System Analysts.

Scope of Audit

2.3.2 The audit of computerised Loan Accounting System of the Company for the period from April 2000 to September 2005 was conducted during October 2005 to February 2006. Out of five loan schemes computerised by the Company, Audit scrutinised individual housing loan schemes and corporate loan schemes since there was minimal activity in the other three schemes during the last five years covered under audit.

Audit Objectives

2.3.3 The audit of loan accounting system was conducted with a view to assess whether:

- * proper input controls existed in the IT system;
- * the information generated is complete, reliable and conforms to the business rules of the Company; and
- * the system could be relied upon.

Audit Methodology

2.3.4 The Management furnished a copy of the database (as on September 2005) in respect of all the loan schemes in Zip format in a Compact Disk. Audit studied and analysed the Individual and Corporate Loan Database using the interrogation software Interactive Data Extraction and Analysis (IDEA) at the Head office. The result of the analysis was also cross checked and further analysed by verifying physical records available at the Head office in selected cases.

Audit Findings

It was observed in audit that the system had deficiencies with respect to access control, input/validation controls, process controls, etc. which resulted in ineffective and inefficient management of the system. The audit findings are discussed in the succeeding paragraphs.

Access Control

2.3.5 There are multiple nodes from where the database can be accessed and data entry as well as modification to the data can be done without any restriction. Besides, the system does not have provision to generate the system log due to which it is difficult to fix responsibility for the duplicate entry or undesired modification of the data.

Data validation and Input Controls

2.3.6 The input controls ensure that the data entered into the system are authorised, complete and correct. Input control deficiencies were observed in the database that not only allowed incorrect data entry but also left scope for manipulation of the database as discussed below:

Validation controls

2.3.7 Instances of improper validation control in sanction, disbursement and receipt of loans are discussed below:

Lack of validation of date of start of equated monthly instalment led to undue benefit to loanees

* As per guideline, no moratorium period is allowed for repayment of the loan and the equated monthly instalment (EMI) will start in the month following the month of last disbursement. It was observed that in 174 cases, the EMI was fixed after the expiry of 31 days. Out of 174 cases, in 118 cases the EMI started after a period of one year of disbursement of the last instalment of loan. Similarly in 330 cases where Rs.5.53 crore was disbursed, the EMI was not started at all and thus the loanees were not served EMI notice in all these cases. Out of these 330 cases, 108 loanees to whom Rs.2.08 crore was disbursed had not paid any amount. The non-starting of the repayment of EMI resulted in undue benefit to the loanees. Thus, lack of validation of date of start of EMI with the date of last disbursement led to undue benefit to the loanees.

* As per the board resolution, corporate loan sanctioned on or after 12 May 2000 was to be repaid in 72 instalments and sanctions prior to this date were to be repaid in maximum 120 instalments. It was, however, found in 23 cases where the loans were sanctioned after 12 May 2000 that the loanees were granted 120 instalments for repayment. Similarly, in 270 cases the repayment was to be made in 180 instalments and in one case it was 150 instalments. This indicates that validation for the maximum number of instalments for repayment was not built in.

Repayment period exceeded the superannuation age due to absence of validation control

* The guideline regarding fixation of repayment period with reference to the retirement age of the loanee was not followed as, in case of 279 corporate and 526 individual loanees, the repayment period exceeded the superannuation age (58/60 years) of the loanees and the same was accepted by the database in the absence of relevant validation control.

- * As per rules, minimum repayment period of individual loans was six years and maximum period was 15 years. In 34 cases, the loan repayment period was fixed less than six years and in 18 cases, it was 20 years.
- * As per rules, the loan to project cost ratio has to be in the range of 75 to 85 *per cent*. In 123 cases, the loan amount, however, exceeded 85 *per cent* of the project cost by Rs.26.66 lakh.
- * As per the guidelines, the instalment income ratio is to be 35 to 45 *per cent* of take home salary. A comparison of EMI and net income of the loanee revealed that in 693 cases the EMI was more than 45 *per cent* of the net income of the loanee.
- * As per guidelines, processing fee at the rate of 2 *per cent* was to be collected on the loan amount. In 57 cases, no processing fee was collected and in 90 cases, less amount was collected resulting in loss of processing fee of Rs.2.96 lakh.

Input controls

2.3.8 Proper input controls have to be in place to ensure data input by authorised persons in an authorised area and during certain designated hours. The following instances would indicate lack of such input control.

Receipt on Sunday

- * Scrutiny of the receipt database revealed that an amount of Rs.32.20 lakh in respect of 1566 loan accounts was shown as cleared by the bank for credit to the loanee accounts on Sunday.

Advance Credit to Loan Accounts

- * Instances of advance credit to loan account was observed, where the cheques were received much later than the credit date. The advance credit of cheques ranged from one to 778 days before the actual date of receipt of cheques. It was observed that an advance credit of Rs.51.85 lakh was given to 2,030 loanees. Audit observed that in 166 cases, there was loss of interest of Rs.0.69 lakh due to this advance credit. The system should not have allowed the advance credit.

**Advance credit of
Rs.51.85 lakh was
given to 2,030 loanees**

Closure of Loan Account without receipt of amounts due

- * There was no linkage between the database relating to sanction and receipts. It was noticed in audit that in 50 cases, the loan accounts were closed even though they had repaid less than the amount disbursed to them, indicating lack of validation of the repayment with the disbursement before closure of accounts. Out of this, eight loanees did not pay any amount against Rs.5.35 lakh disbursed to them.

Non-existent loanees

Loan account in receipt database is not validated with the loan account in disbursement database

- * A comparison of payment received from various loanees with their sanction and disbursement details revealed that though the loanees made payments, the loanee details are not available in the database. It was observed that in case of 79 loanees, though the Company received payments, the loan account did not exist. Similarly, in respect of 31 loanees, though the repayments were received, the disbursement was shown as 'zero'. This indicates that the loan account in the receipt database is not validated with the loan account in the disbursement database.

Double credit to loan accounts

Instances of double/triple credits were noticed leading to excess credit of Rs.59.93 lakh

- * The Company collects various loan dues either by cheque or through cash deposited through challans. The receipts are entered in the database after obtaining the challans from the Bank. Scrutiny of various receipt databases revealed instances where double/triple credits were given against one particular receipt. It was observed that excess credit of Rs.59.93 lakh was given to 1,560 loanees due to these multiple entries.

Process Control

2.3.9 Process controls ensure that the organisation's rules, procedures, etc. are followed while processing the data captured through various input in the system. It was observed during audit that these controls were not built in for many rules thus allowing wrong processing of data with undesirable results for the Company and consequent losses. Lack of proper process controls led to irregular sanction/disbursement of loans, incorrect calculation of interest, etc. as discussed below:

- * The Company prescribed different interest rates from time to time for the loans sanctioned to its loanees. Scrutiny of the database revealed that in 72 cases less interest was charged than the prescribed interest rate. In nine cases though the EMI was calculated on the basis of correct interest rate, the rate of interest (RoI) entered in the database was wrong. Thus, the EMI calculation was not dependant on the RoI in the database indicating lack of adequate process control.
- * A comparison of date of credit with the date of cheque revealed that in 1,482 cases, Rs.51.37 lakh was credited to different loan accounts, where the cheques were drawn more than 92 days before its clearing. This was not possible as a cheque has to be presented within three months of its drawal.

As per the guidelines, disbursements are to be made in three instalments at the rate of 40 per cent, 30 per cent and 30 per cent in case of construction and in one instalment in case of ready built house. The following irregularities were noticed in this connection:

Loanees were allowed disbursement in one instalment in violation of the guidelines

- * In 930 cases, the loanees were allowed full disbursement in one instalment, of which in 508 cases (Rs.4.99 crore) the loan was for construction purposes. Out of 508 loanees, 215 loanees closed their loan accounts. From other 293 active loanees, 98 loanees to whom Rs.1.14 crore was disbursed had not paid any amount against Rs.1.45 crore overdue from them as on September 2005. Other 195 loanees paid Rs.1.05 crore against Rs.2.29 crore overdue from them (as of September 2005) of which 70 loanees paid Rs.3.03 lakh which was less than 10 *per cent* of the amount overdue from them (Rs.71.29 lakh).
- * Similarly, 1,296 loanees were allowed full disbursement in two instalments, out of which in 957 cases (Rs.15.77 crore) the loan was for construction purpose. Out of 957 loanees, 301 loanees closed their loan accounts. Out of 656 active loanees, 72 loanees to whom Rs.2.26 crore were disbursed had not paid any amount against overdue amount of Rs.1.71 crore as of September 2005. Other 584 loanees paid Rs.3.85 crore against Rs.8.42 crore due from them (as of September 2005) of which 127 loanees paid Rs.8.99 lakh which was less than ten *per cent* of the amount due from them (Rs.1.90 crore).
- * Scrutiny of the Loan Account statement generated by the system revealed that monthly EMI dues were not debited to the loan accounts and though there is a provision for levy of penal interest monthly at a rate of two *per cent*, the penal interest in case of non-payment of monthly dues was not debited to the loan accounts.

Impact of weak controls

2.3.10 Absence of controls made the system completely unreliable and vulnerable to misuse, as would be evident from the instances given below:

The Company did not have complete record of disbursement of loans to the corporate loanees

- * The Company disbursed (March 2000 to March 2003) Corporate Loan assistance of Rs.126.36 crore to 28,364 loanees. The database, however, contained the details of 25,336 loanees to whom Rs.114.46 crore was disbursed. On receipt of the audit observation, the Management manually counted (March 2006) the loan applications and found that Rs.112.66 crore was disbursed to 24,494 loanees. Thus, the Company did not have a complete record of disbursement of loans to the loanees. This indicates the possibilities of loans being disbursed to non-existent loanees.
- * Comparison of Cheque Issue Register (CIR) with the loan database revealed that a sum of Rs.8.15 lakh was disbursed to 14 loanees and cleared through bank but the details of the same were not available in the database for loan disbursed.
- * A cross verification of the database with manual records revealed that in respect of 19,469 loanees from whom Rs.1.36 crore was collected as processing fee, the details of the receipts were not entered into the database.

Details of collection of processing fee of Rs.1.36 crore received from 19,469 loanees were not entered into database

- * In respect of 397 loanees to whom Rs.4.31 crore was disbursed, the cheque number field was found as “***”/.../XXX. Out of these, no repayment was received in respect of 37 loanees to whom a sum of Rs.17.55 lakh was disbursed.
- * The age of the loanees was entered in the range from one to 13 years in 30 cases and from 62 to 956 years in 31 cases. Absence of field for “Date of Birth” indicated lack of input control in respect of age of the loanees.
- * Scrutiny of the receipt database revealed that Rs.16.25 lakh was credited to 439 loan accounts, where no cheque number had been mentioned against repayment of loan dues.
- * In 32 cases, an amount of Rs.64.87 lakh was disbursed involving 16 cheques, where the cheque number was the same but the dates of cheques were different.
- * In the absence of proper validation control, in 1,983 cases in respect of 859 cheques an amount of Rs.5.08 crore was received, where the same cheque towards repayment of loans was shown as cleared on two different dates.
- * Loans were sanctioned without reference name in 1,415 cases, without guarantor in 1,229 cases and with only one guarantor as against two in 905 cases, in violation of the rule provisions.
- * In 1,133 cases, the mortgage details were not available in the database. Similarly, in 2,316 cases the mortgage was not verified at any stage during the sanction and disbursement of the loan.

Same cheques towards repayment were shown as cleared on two different dates

Other findings

2.3.11 Analysis of the database revealed the following:

- * As per the guidelines governing loans to individuals, the Company can accept pre-payment of loan with a levy of maximum two *per cent* as prepayment charges/or without such charges as per decision of the Company from time to time. Scrutiny of prepayment database file revealed that the Company accepted Rs.12.17 crore as prepayment towards loan dues from 757 loanees and in no case prepayment charges were collected. Though the Company had the discretion of waiving the prepayment charges, in no case, the decision to waive the pre-payment charges was made. Due to non-collection of prepayment charges, the Company lost Rs.24.36 lakh.
- * As per the guidelines for sanction of loans to individuals, maximum amount of loan sanctioned was Rs.10 lakh, but two loanees were sanctioned and disbursed (October 2000 and July 1999) Rs.20 lakh each.
- * The Company floated schemes for project finance, which mainly included finance to builders and developers of housing projects. The

The Company lost Rs.24.36 lakh due to non-collection of pre-payment charges

Excess loans sanctioned in contravention of guidelines

loans sanctioned to builders were of less repayment period and of higher interest rate compared to individual loanees. A comparison of sanction database with the receipt database revealed that the Company disbursed loans to different builders by bifurcating the loan amount among different individual loanees. This bifurcation of loans led to the following irregularities:

Loans disbursed to builder were shown as individual loans resulting in less collection of interest of Rs.1.31 crore

- * The loans were disbursed directly to the builders but shown as disbursed to individual loanees. The loans dues were also received from the loanees through single cheque/ challan (in case of cash receipts) on the same date, which indicated that the loans were collected from the builders. Low rate of interest was, however, charged as if the loan was against individual loanees. This resulted in less collection of interest amounting to Rs.1.31 crore* (up to October 2005).
- * The loan disbursed did not have any mortgage to cover the loan amount and interest thereon as the loans was disbursed on the basis of tripartite agreements and allotment letter from the builder. Sales deed for the flats purchased by the loanees from the builders was not obtained by the Company.
- * A test check of receipts pertaining to the month of March and April for the years 2000-01 to 2004-05 with reference to Challans and Bank statement revealed instances where credit was given in March of that year even though the cheques were cleared in the month of April that is, in the next financial year. Thus, wrong entry of credit date resulted in interest benefit to the respective loanees for the whole year. It was observed that the Company allowed interest benefit of Rs.8.81 lakh in 163 cases due to such wrong entry of credit date.

Non-use of database for monitoring of recovery of loan

2.3.12 The Management had not utilised the database for timely action in effecting recovery of loan dues as scrutiny of database revealed 778 corporate loanees and 246 individual loanees, to whom Rs.8.94 crore was disbursed, did not repay any amount as on October 2005. Scrutiny of sanction and disbursement records revealed the following:

Disbursement of loans to employees of a non-existent institution

The Company disbursed Rs.8.80 lakh to 20 employees of State Federation of Labour and Construction Co-operative Limited and Rs.15.94 lakh was due from them. On the basis of audit observation (November, 2005), the Management verified (December 2005) the matter and found that there was no such institution. The matter was placed before the Board and the Management had initiated disciplinary proceedings against the officials responsible for the sanction and disbursement of the loan.

* Approximately calculated on average basis

Follow-up action on the last IT Audit

2.3.13 An IT Audit of the Company was conducted in the year 2000-01 (July 2001) wherein the following recommendations were made.

- * Programs are to be developed with advanced languages to ensure better data security.
- * There should be reconciliation between account and computer generated data to ensure correctness of the computerised data.
- * The Company should frame IT policy and top management should be involved at the time of framing.
- * The Internal Auditors were to be involved in checking the computerised data and to give periodical feedback to the management regarding the irregularities.

No action was taken by the Company on the recommendations made in last IT Audit

Although, the Management accepted the above recommendations and assured to rectify the deficiencies pointed out by the audit, no action was taken in this regard.

The above matters were reported to the Management/ Government (August 2006); their replies have not been received (October 2006).

Conclusion

The computerisation efforts of the Company were to enhance the efficiency of the organisation. The rules and regulation governing the sanction and disbursement of the loans, however, were not incorporated into the application system, resulting in irregular disbursement and repayment of the loans. Necessary input and validation controls were not present in the database, which led to many irregularities like undue benefit to the loanees, non-recovery/delayed recovery of loans, etc. The integrity of the data was further questionable in view of lack of access controls. Thus, the computerisation efforts of the Company to enhance the efficiency of the organisation did not yield the expected results.

Recommendations

- * **The Company may upgrade/replace the existing application system.**
- * **Necessary input, validation and process controls should be built into the application system.**
- * **The Company should ensure adequate physical and logical access control so that the safety and security of data is not compromised.**