Finance Department
(Directorate of Treasuries and Accounts)

3.5 Information Technology Audit of Online Treasury Information System

Highlights

Online Treasury Information System (OTIS) was to enable the departments to exercise control over financial transactions and to keep the expenditure within the budget allocations. It was also to make the flow of information relating to financial transactions upto date and authentic leaving no scope for excess or unauthorised drawals, diversion of funds, wrong bookings of expenditure, etc. However, the system was functioning with major design deficiencies such as lack of validation checks in utilisation of Head of accounts by a specific Drawing and Disbursing Officer (DDO), acceptance of wrong code of bills, absence of control over the payment of bills against Letter of Credit system, absence of provision for revalidation of bills, etc. The database showed huge inflation in expenditure figures. Segregation of duties for operation of software was not appropriate which had made it difficult to fix responsibility for errors/misclassification of funds, if any, with concerned Data Entry Operators. Data generated through OTIS had limitations for utilisation as Management Information System by the Departments.

* **Test checked treasuries were using different versions of the Online Treasury Information (OTIS) software.**

(Paragraph 3.5.6.2)

* **Due to improper data entry at the bill passing clerk and Treasury Officer levels, the OTIS database depicted an inflated picture of expenditure.**

(Paragraph 3.5.7.1)

* **The procedure for data entry was not followed in the treasuries. In 23,653 cases, the transaction dates (the date on which the bill was received) were shown the dates later than the voucher dates (the date on which the payment was made).**

(Paragraph 3.5.7.3)

* **Though required under Treasury Rules, no provision for revalidation of bills was made in the software. As a result, the database showed in 18,043 cases, involving an amount of Rs 103.63 crore, that the banks had made payments after the currency period of ten days of their passing.**

(Paragraph 3.5.8.1)

* **In the absence of a validation check between the drawing and disbursing officers (DDOs) and head of accounts, a DDO was able to draw and encash bills from a head of account for which he/she was not authorised to operate.**

(Paragraph 3.5.8.2)

* **In the absence of a proper input control, the OTIS application software was accepting all form codes of bills instead of the form codes which the major head of account was required to process.**

(Paragraph 3.5.8.3)

* **The Department had not prepared and documented a disaster recovery and business continuity plan and back up policy.**

(Paragraph 3.5.9.5)

3.5.1 Introduction

3.5.1.1 Finance Department, Government of Haryana is responsible for fostering fiscal discipline through the Directorate of Treasuries and Accounts in the State through 21 district treasuries and 80 sub-treasuries. The treasuries maintain records of financial transactions and exercise necessary checks on flow of funds. According to the strategic plan, a software 'Online Treasuries Information System (OTIS)' was got developed from National Informatics Centre, Haryana State Unit (NIC, HSU); to automate the treasury operations and was made operational from 2001.

3.5.1.2 The OTIS was designed as a web enabled application with Windows 2000 as operating software and MS SQL server at the backend and MS Visual Basic at the front end to provide online query and access. The first version was prepared and operated in the year 2001 and thereafter changes were also incorporated in the OTIS. The system was, however, stabilized from March 2003.

3.5.2 Organisational set up

Treasuries and Accounts Department is headed by the Director, who is assisted by a Joint Director and a Deputy Director. One System Analyst, one Programmer and two Junior Programmers provide technical assistance for operation of the System at Headquarters. In the field, there are 21 Treasury Officers (TOs) and 80 Assistant Treasury Officers (ATOs) with one Superintendent at each treasury. Technical assistance is provided by a Junior Programmer at each treasury.

3.5.3 Objectives of computerisation

The major objectives of OTIS were to enable:

* the departments to exercise desired control over financial transactions by rational allocation of budget to DDOs, thereby enabling TOs to have a tight control over expenditure to keep it within the budget allocations.
* to make flow of information upto date, authentic and consistent leaving no scope for excess or unauthorised drawals, diversion of funds, wrong bookings, etc.

3.5.4 Scope of Audit

Out of the 21 treasuries and 80 sub-treasuries, five treasuries[1] and 19 sub-treasuries *(24 per cent)* were covered in Audit. The treasuries were selected based on State's budget and expenditure during 2003-06. In terms of expenditure, the expenditure incurred by these treasuries worked out to 47 *per cent* of the total expenditure of the State Government.

As the System was stabilized in March 2003, the scope of audit included test-check of data maintained in the treasuries for the period ranging from April 2003 to March 2006 and verification of the controls regarding OTIS.

The data was checked using Audit software tool namely Interactive Data Extraction and Analysis (IDEA).

3.5.5 Audit objectives

The Audit objectives were to assess whether:

* Extent to which hardware that had been procured had been utilised;

[1] Ambala (3), Chandigarh, Hisar (5), Karnal (6), Kurukshetra (5) treasuries and their sub-treasuries in number in brackets.

- The flow of information with respect to expenditure was upto date, authentic and consistent leaving no scope for excess or unauthorised drawals, diversion of funds, wrong booking, etc.;
- Application control specific procedures were in place; and
- General controls had been prescribed and were in place and a documented disaster recovery and business continuity plan was in existence.

Audit findings

3.5.6 Hardware acquisition and system development related issues

3.5.6.1 Investment in Information Technology resources

Rupees 98 lakh remained unspent with HARTRON as of June 2006

As per the Financial Rules, no money is to be drawn from the treasury unless it is required for immediate disbursement. However, the Department deposited Rs 6.50 crore (31 March 2001: Rs 3.50 crore; 31 March 2002: Rs 1.00 crore and 31 March 2003: Rs 2.00 crore) with the Haryana State Electronics Development Corporation Limited (HARTRON), the nodal agency for hardware related purchases for State Government departments. Audit observed that the amounts withdrawn and placed at the disposal of HARTRON remained unspent in the years of their drawal and were carried over to subsequent financial years. HARTRON spent (upto June 2006) Rs 5.52 crore[2] and the balance of Rs 0.98 crore remaining with HARTRON which pertained to release of March 2001 (Rs 0.22 crore), release of March 2002 (Rs 0.20 crore) and release of March 2003 (Rs 0.56 crore).

During scrutiny of records of treasuries test checked and their sub-treasuries, Audit noticed that a large number of PC nodes, servers, UPSs, printers, voltage stabilisers, web cameras, scanners and kerosene oil driven generating sets were either out of order or not put to use (***Appendix XXV***).

3.5.6.2 Lack of change management procedure and simultaneous use of different software versions

Different versions of OTIS software were used at various treasuries

Though the Software developed by NIC, Haryana State Unit (HSU) had been in use since the year 2001, the Department did not prepare a documented procedure to control changes in the software and project documents. Record keeping of changes during entire project life cycle and impact analysis of changes incorporated till February 2006 were also found deficient. Audit observed that the Department had incorporated changes in the software nine times since the release of the version 1.5 in February 2002; the latest version released by NIC, HSU was 2.4. These changes were incorporated in the software without following any documented procedure. Audit found that in the

[2] Out of funds released in March 2001: Rs 3.28 crore; in March 2002: Rs 0.80 crore and in March 2003: Rs 1.44 crore.

absence of any written policy/procedure for using the latest version of OTIS and its implementation from a definite date, various treasuries/sub-treasuries in the State were found to be using different versions of the software ranging from OTIS 1.7 to OTIS 2.4.

Thus, in the absence of a written policy/procedures the management was unable to ensure that the latest version of the software was being used at all levels thereby making data recovery and reconstruction difficult in the event of data loss.

3.5.7 Analytical review of data

The data pertaining to OTIS of five treasuries test checked was analysed using IDEA. Major deficiencies in the database and in the functioning of the treasuries are discussed below:

3.5.7.1 Inflated booking of expenditure in OTIS - database

Under manual procedure a sequential token number is allotted for passing the bills by bill passing clerk and the TO. The passed bills are returned to the DDOs or their authorized messengers for drawing payments from banks. The bank sends the paid bills to the treasury along with detail of payments on daily basis. The treasury then marks voucher numbers on these paid bills. This ensures a clear trail for the bill from the passing to the payment stage. Under this system, keeping control over expenditure with reference to budget provision of each DDO was difficult as average number of DDOs per treasury was about 356. With the operation of OTIS, the TOs were expected to exercise tight control over expenditure.

One of the objectives of the OTIS was to make flow of information upto date, authentic and consistent leaving no scope for excess or unauthorised drawals, diversion of funds, wrong bookings, etc. However, Audit observed a serious flaw in the software application. The bill passing clerk booked the expenditure against budget provision immediately after passing the bill without waiting for clearance by the TO. Moreover, junior programmers were found running the system, who invariably entered 'Y' (for Yes) in the system showing the bill had been passed by the TO, whereas, in fact it was passed only by the bill passing clerk. In the event of the rejection/raising of objections on the bill by the TO, the bill was again routed, after corrections by the DDO, through the same process of being passed by the bill passing clerk. Resultantly the expenditure was being booked second time for the same expenditure against the budget provisions. Thus, the system was prone to erroneous and inflated booking of expenditure.

In Chandigarh treasury it was observed that due to above lacunae, the cumulative expenditure figures in the database got inflated by Rs 11.27 lakh in 30 cases (April 2004 to January 2006).

Expenditure of Rs 755.20 crore was shown booked in the database though payments for these amounts had not been made

Audit further noticed that in 29,013 number of cases in the five treasuries test checked where the software showed that the TO had passed the bills while no voucher numbers were allotted to these transactions. This indicates that expenditure was booked against the budget provisions but payments were not made. The cumulative expenditure on such transactions in the database was to the tune of Rs 755.09 crore (Ambala: Rs 51.40 crore, Chandigarh : Rs 396.82 crore, Hisar : Rs 93.10 crore, Karnal : Rs 196.40 crore and Kurukshetra : Rs 17.37 crore) during 2004-06. These bills, according to the database, remained unpaid for a period ranging from 8 to 730 days although booking of expenditure under budget provisions having already been made.

3.5.7.2 Mismatch of expenditure data in OTIS database

Head of Account-wise (up to object codes) cumulative expenditure against budget allocations is maintained at each treasury in the database in Budget File. Each TO sends Head-wise expenditure data daily through ISDN lines to the Director, Treasuries and Accounts in as a transaction file of the database. Thus, the expenditure in two sets of files of the database should be equal over the financial year.

A comparison of expenditure figures of transaction file and the budget file for the year 2004-05 revealed that the amounts in both the files were not equal. In Chandigarh, Karnal and Hisar treasuries, there was mismatch between expenditure figures of both the files in respect of 1,235, 1,372 and 612 records respectively.

Expenditure figures as per budget file and transaction file were not matching

It was noticed that expenditure figures as per transaction file was more than that of in budget file in 828 records to the extent of Rs 787.48 crore (Chandigarh: 184 records: Rs 371.66 crore, Karnal: 357 records: Rs 67.56 crore and Hisar 287 records: Rs 348.26 crore). Further, cumulative expenditure figure was more than the expenditure figure in Transaction file in 2,391 records to the extent of Rs 1,596.15 crore (Chandigarh 1,051 records: Rs 1,066.80 crore, Karnal 1,015 records: Rs 165.68 crore and Hisar 325 records: Rs 363.67 crore).

Reasons for the same were called for from the respective TOs; their reply had not received (July 2006).

3.5.7.3 Non-entry of bills as per procedure

In the treasuries, receipts are deposited into the treasury branch of the designated banks and the data are sent by the bank branch through ISDN line or in a floppy with bank challans for verification at treasury. For payments, when bills are presented by departments at treasuries, a token number is issued and the bill is passed by TO by signing the pay order and the bill is returned to the department for drawing the payment from bank. After the payments are made by the designated bank, the paid bills are returned to the treasury for verification and marking of voucher numbers.

Thus, the software should not allow voucher date in advance to transaction date except in cases of the Forest Department and Pension Payment through banks, which are not routed through treasuries. However, during analysis of

OTIS data of five treasuries test checked, it was observed in audit that in a number of cases transaction date (date of token entry) was a later date than the voucher date which indicates that the payment was made by the bank before presenting the bill at the treasury.

In 23,653 cases, the transaction dates were later dates than voucher dates

In the database of treasuries test checked, 25,923 records (Ambala: 4,170, Chandigarh: 3,981, Hisar: 3,699, Karnal: 3,988, Kurukshetra: 10,085) showed the transactions date later than the date of voucher date. In reply to an audit observation, the TO, Kurukshetra intimated that in case of Forest Department and re-imbursement of pension to bankers, the transactions took place directly in the bank and hence the token numbers were generated later on to reconcile the accounts. The reply was not convincing because data analysis of all the test checked records showed that only 2,270 (8.76 *per cent)* out of 25,923 records pertained to Forest Department and pension through banks while the remaining 23,653 records involving Rs 785.17 crore related to Medical, Education, Labour and Employment, Social Security and Welfare, Public Works Department, bills relating to provident fund, etc.

3.5.7.4 Non-maintenance of details of personal ledger accounts in the application

Control over drawal of funds from PLAs did not exist

The treasuries are required to maintain Personal Ledger Accounts (PLAs) opened with the approval of the Accountant General (A&E) Haryana. It was noticed in audit that PLAs of personal deposits were not being maintained in the OTIS application database in the treasuries test checked except at Karnal treasury. The PLAs were being maintained manually.

As per rules, while passing bills pertaining to PLA, it should be seen that the funds are available in the account. However, Audit observed that in Karnal treasury, the OTIS application did not have a linkage for checking the amount available in the PLAs before passing the bills. As a result of which, the PLA relating to Chief Executive Officer, Zila Parishad, Karnal and Block Development and Panchayat Officer, Karnal had shown minus balances of Rs 2.88 lakh and Rs 2.07 lakh respectively in the month of March 2006.

3.5.8 Application Controls

Application controls are those built in checks in the software, which ensure that transactions are processed according to the rules and regulations governing them. These are absolutely essential to ensure that the data is accurate and reliable. Audit observed a number of deficiencies in the application controls, which are discussed below:

3.5.8.1 Provision for revalidation of bills after expiry of the currency period not made

Control over passing of bills after currency period was lacking in the system

As per Treasury Rule 4.165 relating to currency of payment orders, the payment orders are valid only for a time not exceeding ten days. In case bills are not presented for payment within the currency period of the pay orders, these are to be revalidated by the TO.

During scrutiny of OTIS data, it was noticed that no such provision existed in the software and the bills were being revalidated manually. Test-check of data revealed that in 18,043 cases (involving an amount of Rs 103.63 crore) payments were made by the banks after the period of more than 10 days of their passing and for this no audit trail existed in the database.

Thus, non-incorporation of the revalidation facility in the software restricts the usefulness of the software.

3.5.8.2 Absence of validation check between the DDOs and the Head of Accounts

Absence of control over operation of unauthorized head of accounts by DDOs

As per Treasury Rules, the DDOs are authorised to draw payments by presenting bills in a treasury only in respect of those Head of Accounts which they are authorised to operate.

However, it was noticed in audit that a validation check did not exist in the application between the DDOs and the Heads of Accounts, which they are authorised to operate. Checking of the software at Karnal treasury using DDO code 1575 of Horticulture Department revealed that the system accepted the Major Head 2202-General Education though the DDO was concerned with transactions of Horticulture Department. Thus, absence of validation check created a risk of irregular operations of head of accounts by DDOs which may lead to fraudulent drawal of funds.

3.5.8.3 Non-existence of validation check between the form codes and major head of accounts

Validation checks between the form code and major Head of account did not exist in the system

The bills for payment are presented at a treasury in form of pay bill, Travelling Allowance (TA) bill, medical bill, contingent bill, General Provident Fund (GPF) bill, pension bill, revenue deposit bill, civil court deposit bill, etc. These forms of bills have been assigned different codes in the application.

Audit observed that proper validation linkages were not devised in the application to restrict the transaction in a particular head of account with its respective form code. Test-check of operations of the system revealed:

(i) Major Heads 8782-Cash remittances and adjustments, 8443-Civil deposits, 2071-Pension and other retirement benefits, 8011-Insurance and Pension Fund and 8449-Other deposits, accepted form codes 01 (TA bill), 02 (medical bill), 03 (pay bill) and 06 (contingent bill).

(ii) Head of account '2071-Pension and Other Retirement Benefits', accepted form code of pay bill, TA bill, and contingent bill, etc.

(iii) Head of Account '8005' and '8009' relating to State Provident Fund also accepted the pay bill, TA bill, contingent bill, etc.

In the absence of proper validation checks in the application, there is a risk of payments being drawn against unauthorised form codes resulting in wrong booking of expenditure/drawals in excess of budget provision, etc.

3.5.8.4 No provision for adjustment of abstract contingent bills

Control over drawal of AC bills without submission of DC bills against earlier AC bills was lacking

Treasury Rule 4.49 provides that a certificate should be attached with every Abstract Contingent (AC) bill to the effect that the Detailed Contingent (DC) bills have been submitted to the Controlling Officer in respect of AC bills drawn more than a month before. The DC bill should be submitted to Audit office by the end of the month following the month in which AC bill was drawn.

It was noticed in audit that the application did not provide any information about pending AC bills such as details of DDOs, heads of account and the amount of each such bills. In the absence of provisions for the DC bills (for adjustment of AC bills), the TOs were unable to have a control over AC bills and rights to refusal of payment of AC bills submitted by DDOs even if DC bills for the previous months had not been submitted. This defeats the objective of tight control over the expenditure.

3.5.8.5 Audit trail not properly maintained

There were 52 master database tables and 22 working tables in the application software but important audit trails like 'updated by', 'updated on' and 'updated from' were not incorporated in the software. Moreover, it was observed that though data purge query (for deleting data from various tables) was being run in Ambala and Kurukshetra treasuries, though the time of deletion of data and by whom the data had been deleted along with its authorization were not available in the OTIS database.

Audit also found that in version 2.3 (used by 4 out of 5 treasuries covered in audit, except Hisar), the budget is entered in the budget field as per budget allocation/revised budget allocation, for appropriation and re-appropriation. However, no trail in the OTIS database as to when the original budget allocation/revised budget allocation or changes on account of appropriation/ re-appropriation of budget were made along with its authorisation was in existence.

Non-existence of audit trail in regard to deletion of data increased the risk of unauthorised changes in the master file relating to budget, which may result in drawal in excess over budget provision and on account of absence of trail over paying, the possibilities of fraudulent payments remains in existence.

3.5.8.6 Inadequate controls for processing payment of bills against LOC allocation

As per rules in respect of bills of Public Works Department, the Engineer-in-Chief/Superintending Engineer make Letter of Credit (LOC) allocation for a period of time (one month/three month).

In Karnal treasury, it was observed in audit that when bills were passed against the LOC allocation, there was no effect of transactions and the balance amount against allocation remained the same as a result of which, the TOs/ATOs were forced to exercise check on LOC allocation by maintaining manual records thus defeating a major objective of computerization.

3.5.8.7 Inadequate processing controls for payment of bills against Revenue Deposits/Civil Court Deposits

The system of checking of deposits in Revenue Deposits (RD)/Civil Court Deposits (CCD) was not in place

In terms of orders/decisions of civil courts, the amounts are deposited in Government Accounts as CCD under Head of Account 8443 'Civil Deposits'. Bills are submitted in treasury for releasing payments to various beneficiaries as per decisions of the Civil Courts.

During checking of payment of CCD bills at Hisar, treasury and Shahabad (Kurukshetra), assistance treasury, it was noticed that the software did not pass a bill when the correct deposit particulars were entered and screen showed a message that 'this number did not exist'. However, when the date of deposit was changed to 2001 instead of the actual year of deposit, the bill was passed. This showed that the proper process linkage did not exist in the software for releasing payments of bills against a civil deposit amount.

3.5.8.8 Incomplete Master database of Drawing and Disbursing Officers

In 'OTIS', there is a master data file which had been designed for capturing the data about operational DDOs for monitoring DDO-wise budget and expenditure.

The Department had not laid down any procedure for allotting codes to various DDOs in the State. In the absence of a laid down procedure, the TOs/ATOs were allotting codes to various DDOs as per their convenience.

Checking of OTIS data revealed that in a number of cases, the description of the DDO was incomplete. Common DDO-Codes were allotted by the TOs. The TO, Hisar and its Assistant Sub-TOs Adampur, Barwala, Hansi, Narnaund and Uklana Mandi allotted the same code to their different DDOs. This would substantially limit the usefulness of data for MIS purpose.

3.5.9 Major Audit Findings on General Controls

General controls are the policies and procedures, which govern the environment in which Information Technology is used in an organization. The deficiencies noticed were as follows.

3.5.9.1 Lack of Information Technology Security Policy

Treasuries and Accounts Department had not formulated and documented security policy regarding the security of Information Technology (IT) assets, software and data security even after five years of OTIS operation.

3.5.9.2 Inadequate Access Control Mechanism

There was no well-defined and documented password policy. Normal password control procedures like restriction on unsuccessful login attempts by the users or automatic lapse of password after a predefined period and system enforced periodical change of passwords after a certain period were non-

existent. Moreover, the system did not generate any logs to record the number of failed login attempts.

3.5.9.3 Deficiencies in ensuring segregation of duties

The principle of segregation of duties was not adopted

* Audit observed that there was no policy and documentation relating to the procedure for assigning the duties for working on the software. Since the major work was being performed in the field offices (treasuries and sub-treasuries), the TOs assigned duties to various officials working on OTIS. However, it was found that the Junior Programmers, on behalf of the TOs were creating users and assigning rights and privileges to them.

There was no clear segregation of duties in the treasuries. Though a table was maintained in the application for keeping audit trail of system use, its data was erased every month on starting of a new month for verification of bills/receipt challans of the subsequent month. Audit noticed that the application continued to have users with active privileges even after their death, transfer or being on leave. The deficiencies noticed in Chandigarh treasury were as under:

(i) Shri Kuldeep Kumar expired on 7 January 2006 but his user name was found functional from 8 January 2006 to 19 January 2006 in respect of 446 records.

(ii) Smt. Murti Devi was relieved from the treasury on 21 December 2005 but her user name was found functional during the period from 31 December 2005 to 19 January 2006 in respect of 457 records.

(iii) Shri Babu Ram was on leave on 6 January 2006 but his user name was found functional on that date in respect of 217 records.

* The OTIS application provides for different roles for the users as per the functioning of the treasury office viz. token entry, bill passing by bill passing clerk, bill passing by TO, payment verification of bill and challan verification. The users had been created for performing specific functions in the OTIS to create a system of checks and balances. However, it was observed in audit that there were interchanges of treasury personnel performing the duties which greatly diluted the responsibility and accountability for duties performed while using the software. Important cases noticed in audit were as follows:

(i) Junior Programmers were functioning both as Data Entry Operators and Computer Operator in addition to their own duties at Chandigarh, Karnal and Kurukshetra treasuries.

(ii) Bill Passing Clerks were found performing duties of token clerk and TO/Junior Programmers in addition to their duties at Ambala and Karnal treasuries.

(iii) The TO, Karnal was performing duties of token clerk, bill passing clerk, Receipt and Payment Assistant in addition to his own duties.

(iv) One official at Hisar was using three users' codes in addition to his own user code and was performing duties of Token Clerk and TO/Junior Programmers.

This created an uncontrolled environment in which IT operations were run and completely negated the concept of separation of duties to prevent misuse of the system.

3.5.9.4 Deletion of data from tables

In treasuries and sub-treasuries, the first stage of processing a bill is issue of token number and the last stage is issue of voucher number for each bill paid by designated bank(s). The OTIS application allots token numbers and voucher numbers serially. The token number and vouchers should have one to one correspondence as these were to be issued sequentially.

In Chandigarh treasury, it was noticed that there were gaps in the voucher numbers and token numbers and there remained no trail for the transactions, which could have explained the data that have been deleted representing these missing vouchers and tokens numbers.

Since the OTIS software permitted such deletion, it was a serious threat to the security of data and un-authorised deletion of transactions which had wider ramifications particularly in a situation where inadequate access control mechanism and weak segregation of duties exists as discussed in paragraph 3.5.9.2 and 3.5.9.3 creating risk of over payments.

3.5.9.5 Lack of disaster recovery and business continuity plan

Disaster recovery and business continuity plan and back up policy was not formulated

The OTIS is a critical system relating to processing of various bills, authorizing payments, preparing DDO-wise and Head wise (up to object code) daily receipt and payment accounts and submission of accounts relating to expenditure and receipt on behalf of the State Government (along with vouchers and challans) to the Accountant General (A&E). If the system comes to a halt, bills would not be passed and accounted for in time. Moreover, day-to-day ways and means position will not be readily available to the Finance Department. In the absence of which important decisions of the State Government relating to release of funds are likely to be adversely affected.

* It was observed in audit that the Department had not formulated and documented any Disaster recovery policy. There were no documented procedures indicating frequency for taking back up of data, its storage and frequency of testing/checking. The TOs were taking backups as per their convenience. The back up data was not stored at a separate location in fireproof cabinets and the back up was not tested regularly. The data back up was being stored on the same server and back up CDs in the same location. This defeated the very purpose of keeping back ups.

* Each treasury had two servers with the second server serving as a standby. It was observed that both the servers were located in the same computer room of the treasury office. Thus, in the event of a disaster, the treasuries would not have a fall back/standby options.

3.5.10 Conclusions

Though the OTIS software has been stated to have been stabilized and in operation in Haryana for the last 3 years, the system was found to be running with major design deficiencies such as absence of validation check between DDO and Head of Account, accepting wrong form codes of bills, inadequate processing control for payment of bill against Letter of Credit and non provision for revalidation of bills. As the system had poor processing controls, the database showed huge inflation in the figures of expenditure. The application was being run in a poorly controlled environment with weak segregation of duties, which in conjunction with lack of audit trails makes it extremely difficult to fix accountability/responsibility on those who had performed duties using the software. The software needs to be improved upon to get the desired benefit out of the computerization efforts.

3.5.11 Recommendations

* The Department should ensure that all the treasuries utilize the latest and comparable version of the software.
* The software application should be improved by incorporating necessary inputs/processing controls which will facilitate revalidation of bills, validation checks between DDOs and Head of accounts, control check for payment of bills against letter of credit allocation.
* Proper segregation of duties should be enforced to prevent frauds and to establish accountability.
* The department should formulate a well defined password policy, data back-up policy and a disaster recovery plan.

The points were referred to the Government (June 2006); reply had not been received (July 2006).