FINANCE DEPARTMENT

2.5   IT Audit of Orissa Treasury Management System

2.5.1   Introductory

As part of the Orissa Public Sector reform programme, Government have computerised its Directorate of Treasuries and Inspection (DTI), eight special treasuries, 30 district treasuries and 126 sub-treasuries of the state under the Orissa Treasury Management System (OTMS). All treasuries in Orissa are banking treasuries.

The OTMS project started in June 2005 with funding from Department for International Development (DFID)[86]and was completed in February 2007 one month ahead of scheduled completion date. The project was monitored by Project Steering Committee headed by Principal Secretary, Finance Department. The OTMS developed by CMC Limited is an adoption of similar software developed for Government of Karnataka viz. *'Khajane'*. Therefore, no separate user requirement specification (URS) was developed for OTMS. CMC and DTI analysed the software and identified gaps through gap analysis document (GAD) between software specifications and the Government requirements.

The OTMS uses Red hat Linux Enterprise as Operating System and Oracle 10g for database and application servers. It is based on a hybrid network of VSAT and BSNL lease lines with former connecting the sub-treasuries with district treasuries and the later connecting the district treasuries with nerve centre at DTI in Bhubaneswar. The OTMS architecture is based on distributed processing.

The Central Nerve Centre at DTI is equipped with two application servers and two database servers. DTI/Finance Department module and communication module of OTMS are deployed in DTI servers. District treasuries are equipped with an application server, database server through a LAN with local nodes and treasury module of OTMS. Sub-treasuries including part time sub-treasuries are equipped with local nodes in LAN. They access the district treasury module of OTMS deployed in the district treasuries.

The central focus of the OTMS Software is budgetary control through distributed processing on client-server architecture. There is a central server in DTI nerve centre in to which the budget once passed by Legislature is uploaded by the Finance Department. Subsequently, the line departments distribute the budget among the Controlling Officers (COs) by using a separate module called the Budget Interface, the CO-wise distribution of budget is copied to the central server. The COs, in turn, allot the budget fully

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[86]   Estimated cost of Rs.20 crore

or partly among the Drawing and Disbursing Officers (DDOs) under their control again using budget interface and send the hardcopies of the allotment orders to the DDOs. The treasury servers and the central server are synchronised twice[87] daily through the communication module. The DDO-wise distribution is copied to the treasuries servers at the time of synchronisation. Thus, the DDO-wise allotment of budget is available in treasury which helps the treasury to validate any bill submitted by a DDO against the allotment.

2.5.2   Organisational set up

DTI is the administrative and technical head of treasuries. DTI reports to Principal Secretary, Finance Department. The DTI is assisted by an Additional Director (General) who is assisted by Assistant Directors (Training, Personnel Management Unit, Computer and Budget) for works related to computerisation of treasuries projects.

2.5.3   Objectives of computerisation

The system aimed at:

* real time allocation of chart of account (CoA) wise budgetary provisions for Drawing and Disbursing Officers (DDO);

* ensuring passing of bills only within allocation of funds and avoiding wrong/excess drawal of funds at the treasuries;

* monitoring progress of expenditure against allotment as and when required;

* speedier processing of bills and claims received at treasury and

* generating returns and reports provided to client departments/ organisations.

2.5.4   Audit objectives

The audit objectives were to assess whether:

* implementation of the centralised computer system was completed in time;

* key benefits envisaged for development of the system were being derived by the Finance Department, DTI, line departments, Accountant General(AG), treasuries and common citizens;

* online clearance of bills were being carried efficiently at the treasuries;

* deficiencies existing in manual system like over drawal of funds, misclassification of expenses and delay in settling the claims were eliminated;

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[87]   From 11.30 AM to 11.40 AM and 3.30 PM to 3.40 PM

∗ level of improvement in budget monitoring and reduction/elimination of expenditure exceeding the budget limits as envisaged were achieved;

∗ extent of duplication of work in preparation of accounts at the treasury level and the AG office minimised;

∗ the system provided real time and accurate information to various Government departments regarding collections and expenses and better management of various schemes administered by the Government and

∗ the system provided efficient service delivery to pensioners.

2.5.5 *Audit methodology*

Comprehensive assessment of OTMS was made through check of records[88]of Finance Department, DTI, software vendor (CMC), through observation of actual data processing in two[89]special treasuries, eight[90]district treasuries and 24[91] sub-treasuries (three sub-treasuries under each district treasury). Interactive Data Extraction and Analysis (IDEA) software and Structured Query Language (SQL) was used by audit for analytical review of data. An entry conference was held with DTI on 31 October 2008. Audit findings were discussed with the Principal Secretary, Finance and Director, Treasuries & Inspection on 19 August 2009. Replies of DTI have been incorporated at appropriate places. The findings of audit were sent to the Government of Orissa in July 2009 and the reply received during September 2009 was suitably incorporated in the report.

Audit findings

Review of OTMS revealed that the project was completed well ahead of its scheduled time. The system has been helpful to the Finance Department in cash management as the system provides information on pending bills as on any day. It was also seen in audit that major benefits derived from OTMS are

  i. the communication of budget allotment stands well organised and now takes lesser time;

 ii. the scope of allotment details being incomplete is negligible and

iii. the system in general does not allow a bill to be approved where allotment is inadequate.

Audit, however, noticed the following deficiencies in OTMS.

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[88] Project documents, i.e., Terms of Reference, Gap Analysis Document, User Manuals, First Administrative Reform Commission Report on procedures of Treasuries and other relevant records

[89] Cuttack and Bhubaneswar

[90] Cuttack, Jagatsinghpur, Jajpur, Balasore, Bargarh, Koraput, Puri and Khordha

[91] Niali, Athagarh and Narsinghpur; Tirtol, Kujanga and Balikuda; Dharmasala, Darpani and Binjharpur; Soro, Jaleswar and Nilgiri; Attabira, Padampur and Barpalli; Laxmipur, Pottangi and Machhkund; Pipili, Nimapara and Satyabadi; Tangi, Jatni and Banpur.

2.5.6   General Controls

2.5.6.1   *Connectivity with Accountant General, Banks and DDOs*

OTMS envisaged development of Treasury interface for electronic transfer of treasury data to voucher level computerisation (VLC) database in the Office of the Accountant General (A&E) (AG) and another interface with banks. These however, were not implemented. The Government also intended to extend the package to DDO level, which was not prioritised. This led to the delay in processing of bills, duplication of work in the AG's office and difficulties in accounting of receipts as discussed below:

(i)   The various stages in the sequential process of payment of bills involved the following steps like bills (1) received by front desk clerk (2) passed by dealing assistant (3) passed by the accountant (4) approved by the Treasury Officer (TO) (5) generation of advice by cheque writer and (6) payment by bank. It was seen in audit that in 14[92] *per cent* of bills passed during 2007-09, there was delay of more than three working days at the front desk clerk and dealing assistant levels.

The Government while admitting the facts (September 2009) assured to adopt *'First In First Out'* method in passing the bills in order to restrict their pendency. However, it was reiterated that the delay could be further reduced/eliminated with the system being extended to DDOs.

(ii)   AG will be able to use the OTMS data only with a treasury interface which is yet to be developed. This will save time and effort on account of re-entry of all vouchers at the AG's level. Further, the divergence in codification structure, classification of accounts etc. between OTMS and VLC system in operation at AG required to be integrated during development of such interface.

The Government stated (September 2009) that steps were being taken to integrate the OTMS with VLC system.

 (iii)   In the absence of interface with banks, receipt/payment transactions in the banks were entered into OTMS based on the print out scrolls of transactions received from the banks at the end of the day. This could have been avoided with interface with the banks. Further as suggested by the First Administrative Reforms Commission, deputing a treasury staff in the banks for operating this interface would also reduce the time and efforts taken by DDO/general public to get the challans verified by treasury before the remittance.

The Government stated (September 2009) that initiatives for providing e-payments are being taken up separately.

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[92]   197006 cases of delay of more than three days upto dealing clerk's level out of a total of 1461399 cases where payment was made through OTMS payment module (between April 2007 and 13 January 2009)

2.5.6.2 Architectural limitations

The OTMS had distributed architecture with servers in each district treasury and synchronising the data with DTI central server twice daily. Generation of State level reports is dependent on data synchronisation and district level server condition. Real time allocations in respect of transactions relating to those CoAs which have been re-appropriated by addition or deduction of funds during post-synchronisation hours are not updated in the treasuries thereby posing problem in exercising better budgetary control. With the availability of 24 hour leased line which is being used only for a few minutes daily during synchronisation, the online synchronisation with Central Server would be possible and would improve the budgetary monitoring exercise.

Though the DTI is placing Monthly Accounts Report, a MIS from OTMS data relating to previous month on its web site, the report is treasury-wise and that too for a particular major head or a Chart of Account (CoA). So, in case of requirement, reports like the progress of expenditure on a scheme for entire State could only be got through DTI instead of getting them on line.

Thus, the architecture based on central processing rather than distributed processing has the big advantage of enabling real time allocations and making transition to a web based system easy with access of the departments, the DDOs and the general public.

The Government in reply stated (September 2009) that steps would be taken to switch over to central processing system in future.

2.5.6.3 Digitisation of Treasury Codes, Rule etc. in OTMS

As per Terms of Reference for OTMS, all Treasury Codes, rules, standing instruction/objections etc. should be documented and made an integral part of the computerised system so that the user will be provided with an easy access to this database for locating specific code, rules, objections etc. Database in respect of the above did not exist in the system. For checking of bill, the rules and codes were being referred to from manual documents only.

The Government stated (September 2009) that though digitisation of codes was not a part of the terms of reference for OTMS, certain important codes were codified in OTMS. However, it is reiterated that complete codification would be more helpful in the operation of Treasury system.

2.5.6.4   Vote on account-Budgetary control

The central objective of OTMS was to restrict expenditure within budgeted allotment. In the financial year 2007-08, Vote on account was adopted for the first four months and provision of funds was defined only up to minor heads. Since OTMS provided for CoA wise allotment up to object heads, the OTMS could not cater to the vote on account. As such, DTI advised treasuries to pass the bills skipping allotment checks those were available in the system till the time regular budget (COA-wise) was passed and duly entered in the system. The budgetary controls were exercised through the registers maintained

manually during the vote on account period. Treasury Officers were also advised to manually deduct the expenditures under different CoAs up to that period and put the balance provision against corresponding CoAs for spending in future.

This resulted in accounting of expenditure against wrong CoAs and those not defined in the budget for 2007-08 later passed and entered into OTMS as detailed below:

(i)   Analysis of Data revealed that during the vote on account period of 2007-08, the system accepted 33634 number of transactions amounting to Rs 388.95 crore against 7551 CoAs, which were not defined in the budget. The above included 1692 cases wherein mismatch occurred due to feeding of incorrect code '0' in respect of charged/voted expenditure instead of '1' for voted or '2' for charged. Similarly, there was mismatch of sector code[93] in 47 cases where the CoA contained the undefined sector codes as 3, 4 and 9 other than 0, 1 and 2. Thus, the office of AG could book this unaccounted expenditure only against Suspense Accounts for further reconciliation.

(ii)   The expenditure during vote on account period were deducted against wrong CoAs leading to short booking of expended amounts with respect to the relevant CoAs, ultimately providing scope to incur/book excess expenditure than the allocation. Data analysis revealed booking of excess expenditure to the tune of Rs 5.59 crore over and above the actual allocation against such CoAs in test checked[94] treasuries.

These mistakes could have been avoided if the provisions to accommodate the transactions in details during vote on account as in case of regular budget were included while designing OTMS and would have resulted in better monitoring and proper accounting of the transactions.

Government has again adopted vote on account for the year 2009-10 and the same procedure was being followed.

The Government in it's reply accepted (September 2009) the limitation of the procedures adopted during the vote on account period and stated that action would be taken to reduce such incorrect booking of expenditures. It further requested for the details of such excess expenditure for detailed analysis. It is stated that such details were already given to the concerned treasuries during the audit and were also provided to the DTI (October 2009).

2.5.6.5   *Non utilisation of developed Payroll module*

Besides, the Treasury Module in OTMS, DTI has also developed the Payroll module. The developed payroll module was kept on hold as comprehensive human resources management information system (HRMIS) package was under development by Orissa Modernisation of Government Initiative (OMGI)

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93   State Sector / District Sector

94   (1) Attabira : Rs.189189, (2) Bargarh Rs.6723391, (3) Padampur: Rs.2774617, (4) Jaleswar : Rs.1007226, (5) Nilgiri : Rs.535757, (6) Soro : Rs.204963, (7) Cuttack: Rs.2910307, (8) Cuttack Spl. : Rs.14115145, (9) Dharmasala : Rs.117411, (10) Laxmipur : Rs.369, (11) Machhkund : Rs.107875, (12) Pottangi Rs.397103, (13) Koraput : Rs.13296369 and (14) Puri : Rs.13545956

of the State Government. As such, the developed pay roll module could not be put in to use till date.

The Government stated (September 2009) that the HRMIS package would also contain the Treasury interface but was silent on the utilisation of developed pay roll module.

2.5.6.6 Implementation of Pension module

Data of pensioners fed into the system initially had many flaws and hence the pension module was not operable. As such, the treasuries and sub-treasuries could not use the module for routing pensioners' bills. It was seen that only 38 treasuries could use the pension module partially while the remaining treasuries were not using the module due to its non implementation.

Further, test check of records and database revealed the following :

The system has no provision to indicate sharable portion of gratuity on death of an employee as indicated in the Pension Payment Order (PPO), instead allowed 100 *per cent* share to one dependent only. Hence, payment of gratuity was adjusted manually by the Treasury Officers.

System has no provision for pro-rata calculation of pension and family pension thereon in case of death of a pensioner in the middle of the month. The same continued to be calculated manually.

Pension payment order (PPO) contains details of the pensioners along with the photographs in both halves so as to ensure the identification of the pensioners at the time of physical appearance from time to time. Provision to store photographs in the OTMS would facilitate easy verification through system. However, in the absence of such provision in OTMS, the verification is continued to be done using manual PPOs.

The Government stated (September 2009) that necessary provisions would be incorporated.

2.5.6.7 GPF Module -Capture of GPF numbers

Analysis of Central database revealed that during 2007-09 sanction details of GPF claims were captured in the database without the GPF account numbers as the system did not have provision to capture GPF account numbers. Availability of GPF numbers in the OTMS data would reduce further manual entry during maintenance of GPF accounts in the office of AG.

The Government assured that such deficiencies would be taken care of.

2.5.6.8 Drawal of AC Bills

Financial Rules provide that a certificate shall be attached to every abstract contingent (AC) bill to the effect that the detailed contingent (DC) bills in respect of AC bills drawn more than a month before the date of the present bill have been submitted to the AG.   However, in the absence of separate

provision for capturing details of this certificate, the system accepted all AC bills without checking the pendency status.

2.5.6.9 Drawals from Deposit account

Note below Rule 479 of OTC envisaged that in case any administrator of local funds failed to furnish the Annual Balance Certificate(ABC) in respect of PL Account operated by him by the end of April every year, the TO may refuse to honour the cheques drawn by the administrator concerned until the certificate is furnished. It was seen that no provision in OTMS to exercise such control of the expenditure was designed. This was being watched manually. The Government stated (September 2009) that necessary validation would be provided in OTMS.

2.5.6.10 Recovery of Income Tax from vendors on sale of stamps

Analysis of database revealed that there was no provision in the system to calculate and capture the income tax on the discounts allowed to the vendors, where commission exceeded Rs 2500 in a quarter, on sale of stamps. It was further observed in the district/special/sub-treasuries that the income tax was manually calculated and deducted from the discount.

The Government replied (September 2009) that such facility will be incorporated in the system in future.

2.5.6.11 Non-utilisation of the System "Scanned signatures of payee"

Payment of any type of bill requires the authentication of signature of DDOs/ pensioners/ messengers to ensure the genuineness of the payee. Though OTMS has the provision of storing the scanned signatures of DDOs/ pensioners/ messengers, the same were not captured and used for verification during the bill clearance process. Hence, signatures were continued to be verified using manual records.

The Government stated (September 2009) that the provision available for verification of signatures would be utilised.

2.5.6.12 Non-generation of different reports in OTMS

The following reports required to be submitted to Accountant General were being prepared manually in the absence of provision in OTMS.

(i) a list of lapsed deposits at the close of every financial year to review lapsed deposits

(ii) a statement of undisbursed pension in every six months by the pension disbursing officer

The Government stated (September 2009) that the provision will be made in the OTMS for generation of such reports.

2.5.6.13   Disaster Management Plan

(i)   It was seen in audit that the size of the database was increasing day by day which could affect the performance by slowing down the system unless data warehousing concept i.e., data for earlier periods are taken out of the system and stored offsite, is adopted. This would also ensure the safety of the data. The DTI stated (June 2009) that necessary steps will be taken to improve the performance of the system.

(ii)   It was seen that no Disaster Recovery Policy and Backup Policy had been formulated by the Department. As the data between district servers and the central server were got synchronised only twice a day, there was a risk of loss of data in between such synchronisation in the absence of provision to take external backups and store them at offsite locations at DTI level.

(iii)   Moreover, the Government did not address the critical need for having a separate Disaster Recovery Centre in different location other than the nerve-centre at Bhubaneswar in order to mitigate the risk of disruption and loss of data due to accidental reasons.

The Government replied (September 2009) that the requirement of separate Disaster Recovery Centre is being considered.

2.5.7   Information System (IS) Security

2.5.7.1 Logical access controls

Logical access controls are the measures and procedures aimed at protecting computer resources (data, programs and terminals) against unauthorised access attempts. The following deficiencies in logical access controls were noticed.

(i)   In order to ensure security and accountability, usage of group user IDs and sharing of passwords should be prohibited. Audit observed that during 2007-09, in the test checked treasuries, 33807 transactions were recorded using the user IDs of users who were on leave. Further, user IDs of users on transfers were not deactivated immediately after their relief and in one case user ID of a TO was used to approve nine transactions after his transfer. As such fixing of accountability could not be ensured in the above transactions.

(ii) In OTMS, the user name was associated with the user ID. However, users were allowed to modify the user name without changing the other details including user ID etc. Thus the transactions were continued against the earlier user ID, eventually creating discrepancies in accountability. Verification of records in Attabira sub-treasury revealed that transactions prior to 20 August 2007 were shown as processed by a dealing clerk who joined the duty only on 20 August 2007.

(iii)   The passwords were assigned to the users in a uniform pattern i.e., 'abbreviated username combined with digits 123' which were vulnerable for users to gain access to the system using others' user ID.

(iv)   There was no provision in the system to automatically change the password at certain intervals.

(v)   The system did not have the provision to restrict invalid login attempts so as to avoid hacking through password guessing attacks.

(vi)   There was no provision in OTMS to automatically log off the system after a defined unattended period.

Government assured (September 2009) that necessary security controls will be built in OTMS.

2.5.7.2 Backend corrections

Correction in the data should be done using an interface rather than through the backend directly in the database. It was noticed that in OTMS corrections of data through backend was resorted to on request basis and this process has led to loss of data integrity in the database. The corrections, if inevitable could have been done through a proper menu on module at DTI level with proper log of such corrections.

Analysis revealed that corrections had been made using backend in 218 cases out of 507 requests during 2007-09. The backend corrections also made by the CMC, the service provider, indicated continued dependence on the vendor to sustain the system.

The DTI replied (June 2009) that the correction facilities would be extended to the DTOs using interface in near future.

2.5.7.3 Audit trail

(i)   As a measure of security, audit trails automatically track the user activities in the system. In OTMS, when the transaction is initiated, it is followed by creating date of creation of record. On subsequent modifications, the date of modification is also recorded. Analysis of central database revealed that dates of creation of challans were not recorded in 30716 cases during 2007-2009.

(ii)   The modifications/changes made in the amounts of the bills and other details at different levels are not logged. This resulted in non-identification of the user modifying the bill. The DTI noted the observation for future guidance.

(iii)   In the counter operation environment, capturing the details of login such as login date/time and whether the attempt to login was successful and authorised or not etc., would help in monitoring user login events. However, OTMS had no such module.

(iv)   Under computerised environment (OTMS) budget allotment to the different DDOs was made by the Controlling Officers after which transactions against the DDOs take place in the treasuries. Transactions against a DDO cease to operate whenever a particular DDO becomes inactive or gets

abolished. OTMS did not contain provision to maintain a log of such period when the DDOs were made active or inactive. In reply the DTI stated (June 2009) that the date of creation and modification of such records will be captured in the system in future. The reply was not tenable as capturing the date of creation and modification of record was not sufficient for the purpose of log. Rather the dates from which the DDO became active or inactive should have been provided in the database.

Application controls

Application controls include input controls, process controls and output controls and are used to provide assurance that all transactions are valid, authorised, complete and accurate. The budget module of OTMS was a part of DTI/FD module while Treasury sub-system contained modules like payments/receipts, personal ledger and deposit accounts, pension and stamps. The observation related to deficiencies in various application controls are grouped under the relevant modules as detailed below:

2.5.8   Input Controls

The input controls ensure that the data received for processing are genuine, complete, not previously processed, accurate and properly authorised and are entered accurately and without duplication. The following deficiencies in input controls employed were noticed.

Receipt and payment modules

2.5.8.1 Duplicities and gaps in vital fields

In treasuries and sub-treasuries, the first stage of processing a bill is issue of token number (treasury-wise and year-wise) followed by issue of bill numbers (DDO-wise and year-wise) and the last stage is issue of voucher number (treasury wise-major head wise-month wise) for each bill paid by designated bank(s). It was seen in audit that during 2007-09 the system accepted duplicate bill numbers, token numbers and voucher numbers and simultaneously allowed gaps in these number series as detailed:

(i)   Duplicate token number and gaps in token number series

Analysis of central database revealed that there were 305 gaps in 69 occasions and 148 duplicate token numbers. Interim reply of DTI (June 2009) revealed that 128 duplicities occurred due to accidental change in system date of the database server, advanced by four months, at district treasury, Nabarangpur and the remaining 20 duplicities were due to corrections of token numbers made through backend modifications. This indicated the system lacked input control in this regard.

DTI stated (June 2009) that the gaps in the token number series were due to backend deletion of records. It is recommended that instead of deletion, suitable indicators like flags could be employed for identifying such records.

Government stated (September 2009) that necessary controls would be provided to avoid duplicacies and gaps.

(ii)   Duplicate voucher numbers and gaps in voucher number series

It was observed that in OTMS, voucher numbers were generated automatically while entering payment scroll received from the bank. In the event of wrong entry, the vouchers were deleted and re-entered with the correct data and were given new voucher numbers. This process paved way for gaps in voucher numbers.

Analysis of Central database revealed more than 88860 gaps in the voucher number series in 14000 occasions and 1328 duplicate voucher numbers. It was also observed that due to lack of input controls with respect to the voucher dates, system accepted dates pertaining to previous financial years as voucher dates thus paved way for creating duplicate vouchers having same voucher numbers in the earlier months and gaps for the current month.

It is recommended that input controls should be strengthened to prevent wrong data entry and also suitable indicators like flags could be employed instead of deleting incorrect records.

Government accepted (September 2009) the fact and stated that necessary action would be taken to avoid duplicate vouchers numbers and gaps in the voucher number series in future.

(iii)   Duplicate challan numbers and gaps in challan number

Every receipt should be assigned a unique challan number. In OTMS, the challan numbers were given monthly and major head-wise in the respective treasuries. Data analysis revealed that 1570 duplicate challan numbers existed in the system. This became possible, as was observed in case of vouchers, since the system accepted dates related to previous financial years as challan dates in the absence of input controls in this regard.

The Government stated (September 2009) that though the system was locked on closure of a financial year, only corrections to head accounts were resorted to on requirement basis and stated that action would be taken to lock the accounts thereafter. However, it was observed that keeping the accounts open for a long period have led to such incorrect data.

(iv)   Processing of more than one bill with the same number

OTC required DDOs to allot bill number to each claim before presentation to the treasury for payment. In the manual system, DDO wise bill numbers were allotted serially under different categories like establishment, contingent and scheme expenditure etc. within a financial year. However, absence of

provisions to distinguish the bills into various categories in the OTMS has resulted in allotment of 44882 bill numbers repeatedly two to 47 times in respect of 119666[95] bills for which payments were made during 2006-09.

Thus, there was a risk of possible misappropriation/fraud and confusion to the stake holders. The DTI stated (June 2009) that necessary checks in the system would be provided to avoid acceptance of duplicate bill numbers.

GPF Module

2.5.8.2 GPF Bills - Sanction order details

Every GPF payment needs prior sanction of appropriate authority. Analysis of central database revealed that during 2007-09 GPF payments were made in 49359 cases for payment of Rs 662.37 crore without recording sanction details. Though there was a provision in the system to enter the sanction details, system allowed the user to skip such data entry and proceed with the payments.

Government stated (September 2009) that necessary controls have since been built into the system.

2.5.9 Validation Checks

Validation checks ensure that the data entered into the system is valid. Deficiencies due to lack of validation checks are detailed below:

Receipt and payment modules

2.5.9.1 Processing of the bills

(i)   In the online OTMS in treasury accounting, the sequential processing of the bills should be ensured through the date and time stamps of the individual phases of processing the bill. However, in 614 cases following process inconsistencies were noticed due to lack of validation controls. Necessary validation in this regard was not provided in OTMS even though stated to have been provided in the user manual.

  ∗ On 212 occasions bills were passed by the accountant after the approval of the bill by the TO;

  ∗ On 83 occasions, token dates were earlier than the bill dates;

  ∗ In remaining 319 cases there were anomalies in the sequential bill processing flow, i.e. cases like the TO approved the bill before it was received by the front desk clerk or passed by the dealing assistant, and the dealing assistant passed the bill before it was received etc.

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[95]   Duplicate bills included bill numbers as '0' or '00' in 855 cases and range of occurrence of same bill numbers against the same DDO in same financial year was 1-47.

With reference to the third issue, DTI stated that such inconsistencies in the process flow resulted due to faulty CMOS battery in the server.

(ii)   System accepted bill dates earlier to year 2005 in respect of bills raised during 2006-09 and dates containing invalid years viz., 0002, 0028 etc. in 1581 occasions.

(iii)   System accepted future dates as challan dates in 16 occasions where as the dates of creation of challan records were recorded correctly.

 (iv)   Rule 362 of OTC envisaged that challans shall be valid only for such time not exceeding 10 days as may be fixed by the Collector. In no case a challan will remain valid beyond the financial year. Analysis of database revealed that 455 challans were entered into the system after a gap of more than 30 days and even after financial year was over. This could affect the consistency of reports on Reserve Bank Difference (RBD) as well as other related reports. DTI in its reply stated that some belated entries might have been allowed to facilitate correction of accounts as per the request of Banks/AG/RBI. However, it was stated that the same could be done through 'Transfer Entry' system as followed by AG.

There were 190 absurd voucher dates in the database such as '0007', '0008' '0009' etc. These vouchers were captured through 'OTHER PAID BY' utility in OTMS used to process the payment of bills in special occasions like pension payment where pension module were not operational, and certain exceptional cases where it was required to bypass the regular budget checking processes and the voucher date field in the form had no validation.

The Government assured (September 2009) that necessary validations would be deployed in this regard.

Pension module

2.5.9.2   Inconsistencies in dates

The pension module of OTMS provided for quick and automatic processing of pensioner's claims. The data relating to pensioners contained following inconsistencies:

* Dates of death of pensioners were prior to their dates of birth (36 cases);

* Dates of retirement of pensioners were prior to their dates of birth (27 cases);

* Dates of death of pensioners were not captured in respect of family pension (629 cases);

* Dates of commencement of pension were before the dates of retirement (314 cases); and

∗   Dates of appointment of pensioners were after the dates of retirement (47 cases).

The Government while admitting the flaws stated (September 2009) that pension module implementation was going on and modifications were being made on the basis of new requirements.

Stamps module

2.5.9.3   *Sale of stamps*

Under OTMS, the sales of judicial/non judicial stamps were accounted. However, it was noticed that in the absence of validation checks, in 112 cases of 20 district/special treasuries system permitted delivery of stamps to the vendors other than those vendors who had deposited the amounts for such purchase.

The Government replied (September 2009) that necessary validations would be incorporated.

2.5.10 *Conclusion*

The OTMS in its present form does not fully meet budgetary control requirements since excess CoA wise expenditure and booking of expenditure against CoAs not defined in budget were noticed during vote on account period. The system did not have interfaces with Banks, AG's office and the DDOs which resulted in repetition of data entry, continued dependence on manual operation and avoidable delays in processing of bills. The developed payroll modules were not implemented and Pension module was implemented partially. Manual dependence over generation of certain MIS reports still persisted. Deficient input controls resulted in acceptance of duplicate token numbers, bill numbers, voucher numbers and challan numbers and made the system less reliable. Inadequate logical controls, frequent backend entries for corrections, omissions and errors, lack of audit trails and absence of formal disaster recovery plan made system risk prone. The most significant limitation of OTMS was its architecture i.e. distributed processing rather than a centralised processing system, which could not provide real time data.

2.5.11 *Recommendations*

∗   The task of linking of treasuries with the banks and DDOs is of utmost importance to minimise manual inputs and optimise automation to obtain desired results.

∗   AG will be able to use the OTMS data only with a Treasury interface which may be developed.

∗   The way forward is to upgrade the system to web-based system with a central server which can be accessed by all users through a browser.

∗ Backend corrections should be eliminated for securing data integrity and correction of data should be assigned to designated officers through specified error handling module.

∗ The pay roll and pension expenditure being the most significant, automation of these may be initiated.

∗ Controls to ensure data correctness and completeness may be put in place.

∗ Disaster Recovery Policy and Back up Policy need to be formulated immediately to safeguard the data.