CHAPTER V
MINISTRY OF FINANCE

CONTROLLER GENERAL OF ACCOUNTS

Information Technology Audit on the functioning of COMPACT (Comprehensive Pay and Accounts) PAO 2000 software used in Pay and Accounts Offices of the Indian Civil Accounts Organization.

5.1   Introduction

The Indian Civil Accounts Organisation functioning under the Controller General of Accounts (CGA) discharges its duties and responsibilities through the Principal Accounts Offices and several Pay & Accounts Offices (PAOs) in various Ministries/Departments. The CGA compiles the Union Government Accounts in the manner as prescribed in the Civil Accounts Manual (CAM) and the instructions issued by the CGA from time to time.

COMPACT PAO 2000 software has been designed and developed by the National Informatics Center (NIC) with a view to fully computerise the core functions of the PAO in all Civil Ministries and for compilation of accounts at PAO level. The software covers the accounting tasks of the PAO and was developed in WINDOWS NT Ver.4 environment with SQL Server 7.0 at the back end and Visual Basic 6.0 at the front end. The first version (1.0) of the software was released on 17 September 2001 and the latest version (5.2) was released on 14 February 2007.

COMPACT was developed with the objectives of elimination of human errors in processes; improving accuracy, exchequer control, bank reconciliation; increasing the reporting and querying capabilities; effective monitoring of budget vs. expenditure, more management information; reducing the time taken in the compilation of accounts, generation of different reports and returns in compatible form for CONTACT; integrating the different sections of PAO; keeping pace with technology advancements; historical data maintenance; Graphic User Interface (GUI) based software with better user interface and easy adaptability.

5.2   Scope and Objective of IT Audit

An IT audit of the COMPACT was taken up with the objectives to ascertain whether the package has data integrity; the checks for each field are in accordance with the stipulated government rules and orders; the package has in-built provisions for deductions, adjustments etc. in accordance with the stipulated government rules and orders; the reports generated are in conformity with the prevailing government rules and orders; the package generates reliable MIS information for the management.

This Audit of COMPACT (excluding GPF & Pension modules) was conducted during July 2007 to September 2007 for the year 2006-07 in respect of PAOs of (i) Ministry of External Affairs (MEA); (ii) Department of Expenditure (DE), Ministry of Finance; (iii) Ministry of Rural Development (MRD); (iv) Ministry of Commerce (MoC) and (v) Ministry of New and Renewable Energy (MNRE). Department of Company Affairs (DCA) and Department of Agriculture and Co-operation (DAC), Kolkata have also been included in the report. Data backup (of COMPACT) pertaining to the period April 2006 to March 2007, was used for the substantive checks.

5.3   Audit Findings

As part of audit, data for the period April 2006 to March 2007 was procured from the system in the selected Ministries as a dump and analysed for inaccuracies, inconsistencies as well as abnormalities. In few cases, some reports were produced from this data dump, as on a particular date and were compared with the hard copies of the same reports made available by the department.

The observations are given in the succeeding paragraphs.

5.3.1   Data Inconsistencies

Data analysis in the selected Ministries on a test check basis brought out the following:

i.   In PAO (MEA) 57 cheques valued at Rs 6.21 crore, cleared by various banks during 2006-07 were shown as outstanding as on 31 March 2007.

ii.   In the master database of employees, serial numbers were sequentially generated and hence should have been continuous. Audit observed gaps at 23 places, with one or more serial numbers missing in between two records.

iii.   The system assigns a number to each item of expenditure. A missing number should be a cause of concern. 87 cases of gaps in MEA and 16 cases of gaps in MNRE were noticed where one or more serial numbers was missing.

iv.   In 2568 cases (MEA-1600 and MNRE-968) tokens which are generated and issued as acknowledgement of receipt of the bill, automatically, were found with negative numbers.

v.   Cheques/challans shown outstanding at the end of financial year 2005-06 were neither encashed in 2006-07 nor shown as outstanding at the end of the year (2006-07).

vi.   In 61 (MRD) cases branch scroll dates were earlier than compilation cheque dates.

vii.   It was also seen that the MIS and the printed reports differed from the same reports obtained through the database for the same period but printed at the time of audit.

These observations put a doubt on the reliability of data. Audit made an attempt to identify control weaknesses which could result in such inconsistencies. Assurance on the reliability of the computer system can be given if there are adequate and sufficient controls in the system which ensures data reliability, safety and security. It was seen that the above inconsistencies could arise due to deficient input controls and bypassing the COMPACT through manual interventions in the process of data entry.

5.3.2 System Design

The system had design deficiencies as illustrated below:

i. The system had no provision to capture the items of the pre-checks applied by the PAOs in respect of various bills.

ii. 'COMPACT' was capable of processing the bills through different stages of pre-check to the final compilation of monthly accounts, with the provision for a number of registers/reports/forms as prescribed in CAM, which were to be generated through the package. One of the provisions was to override the budget by PAO after obtaining the assurance from the DDO. However, there was no provision in the COMPACT to capture the assurance given by the DDO in case of overriding the budget.

iii. Recoveries in respect of gas/electricity/water charges etc. affected by the Missions/Posts abroad were not codified and were being deducted from the gross salary (PAO, MEA) and the net amount was posted for salaries resulting in booking of incorrect expenditure to the extent of departmental recoveries in the accounts.

iv. The system had no provision for a review of sanctions/payments (other than for inter-governmental/departmental transactions) of Rs 50 lakh and above by Dy. CA/Pr. CCA/CCA/CA before making the payment.

v. The system had no provision for verification of items over Rs one lakh by the Accounts Officer (AO)/Sr. Accounts Officer (Sr. AO) as all such items automatically got transferred to the compilation module after verification by the Assistant Accounts Officer.

5.3.3 Data Safety and Security

The system had security weaknesses. This could result in data modifications getting unnoticed and thus would defeat the accountability aspect.

i. The provision of automatic expiration of login session of users in case of not using the system for a longer duration of time has not been incorporated in the COMPACT.

ii. COMPACT allowed login with same user ID in different client machines simultaneously, resulting into deficient access control and lack of user accountability built in into the system.

iii. As a result of diluting the level of authorisation, the dealing hands had been assigned the rights of the PAO in respect of the Master module.

iv. Data entry made by the dealing hands can be modified by the PAO and the system does not keep any traces of such modifications.

v. While restoring the backup files, the backup taken from "SQL" mixed mode server"[1] could be restored on any machine in SQL server without mixed mode at the backend. This made the manipulation of the data backup through restoration of the same in the COMPACT.

vi. There is no 'Anti virus' policy in PAOs. In PAOs (MEA and DE) neither was the antivirus available/updated into these machines (server/client) nor were these machines kept out of the internet/LAN, which made them prone to the viruses and threat to the security of the database/IT assets.

5.3.4 Business Continuity

PAOs maintain no documentation in respect of business continuity plan, disaster recovery plan and IT policy to take timely action in the event of an interruption or disaster leading to temporary or permanent loss of computer facility.

For business continuity, it is necessary to take the back-up copies of system software, financial applications and underlying data files regularly. Backups are to be stored, together with a copy of the disaster recovery plan and systems documentation in a fire-safe cabinet at an off-site location.

However, it was observed that the 'Database Backup Strategy' of COMPACT (PAO-2000) was not properly followed. As a result, following shortcomings were noticed:

i. PAO (MNRE) backup for 30 March 2007 being the last working day of financial year 2006-07 was not available and was stated to be missing. Further PAO (MEA) did not maintain their off-site backup after January 2007.

ii. Though the PAOs (MEA and DE) were keeping their backup both on site and offsite on CD but documentation/policy in respect of backup procedure, its retention period, type of backup device, life of the stored media etc. were not available in the PAOs.

iii. PAOs (MEA and DE) were taking the backup of the COMPACT database without any procedure or planning. It was noticed that PAO (DE) kept their yearly backup of 2005-06 and 2006-07 in CD-RW[2], instead of CD-R[3] with no multi-session mode, the data backup which was stored in CD RW device could be altered and manipulated.

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[1] SQL and COMPACT

[2] CD-RW-COMPACT disk rewritable.

[3] CD R-COMPACT disk read only is a write once optical disc format.

iv. The labeling about the backup date/year was not clearly marked on the backup CDs. In the absence, identification of particular backup from the heap of backups was difficult.

v. Back-up were not stored in the weather-proof/fire-proof safe.

5.3.5 Utilisation of the System

Some features available in the system were not utilised:

i. In PAOs (MEA, DE and MNRE) the PSB suspense balances were still being kept manually because the report on Broadsheet of PSB was not generated by COMPACT.

ii. PAOs had not utilised the provision of maintenance of 'Register of Valuables' available in COMPACT. Further, the purpose of reconciliation of valuable in COMPACT was also defeated as only those valuables for which credit has been given by the Bank were being reconciled with the help of COMPACT.

5.4 Conclusion

Lack of controls, deficient security and problems with design of systems, if not rectified, could result in more such inconsistencies as pointed out in the report. The system also did not have provisions to generate various reports/ registers as mandated by the CAM thus reducing its utility further. Despite this, whatever data that was available in COMPACT also was not backed up properly and in absence of appropriate documentation available, the business continuity of the system could not be assured.

The issues were brought to the notice of the CGA/department. During the exit conference the department assured to take appropriate steps.

New Delhi
Dated

(JAI NARAIN GUPTA)
Director General of Audit
Post and Telecommunications

Countersigned

New Delhi
Dated

(VINOD RAI)
Comptroller and Auditor General of India