MINISTRY OF COMMUNICATION AND INFORMATION

CHAPTER: II

ITI LIMITED

Information Technology Audit of Material Management and Inventory Accounting, Integrated Material Management System and Baan System.

Highlights

Absence of an IT policy and strategy led to overlapping in development of software and areas of operations and underutilisation of IT resources.

(Para 2. 7)

The Company continued its dependence on MMIA which had various deficiencies. Major activities of the Company were not carried out through IMMS and Baan software making the investment of Rs.82.98 lakh on development of Baan and IMMS software unfruitful.

(Para 2.10 and 2.11)

2.1 Introduction

The Company was incorporated (January 1950) as a multi-unit organization for the manufacture of telecommunication equipment and their installation, commissioning and maintenance. The Bangalore Complex of the Company had a turnover of about Rs.500 crore as of 31 March 2006.

2.2 Organisational set up of IT Department

The IT Department functions under the Additional General Manager who in turn reports to General Manager (Bangalore Plant) and is supported by Chief Managers and Managers/Deputy Managers.

2.3 Scope of Audit

In the Bangalore Complex there were many IT systems out of which Audit selected the Material Management and Inventory Accounting (MMIA), Integrated Material Management System (IMMS), and Baan Finance package modules for review.

MMIA was implemented in January 2000 covering material management functions like accounting of receipts, issues, physical verification, identification of slow/non-moving inventory, control checks and data integrity. In MMIA, data were fed and processed in batch mode.

The Company introduced (June 2004) IMMS in Bangalore Complex with the object to have a fully integrated online material management system across all the stores. IMMS also had a provision for stores accounting function.

The Company introduced (December 2001) the finance package of Baan, an enterprise resource planning system with the objective to synchronise finance data by processing the data on the same platform.

The scope of audit included an assessment of the effective utilisation of MMIA, IMMS and Baan systems in computerization of various activities. The audit was carried out through test checks of records and analysis of data besides review of general and application control checks and data integrity.

2.4 Audit Objectives

The broad objectives of audit were:

(i) To review the implementation of MMIA, IMMS and Baan systems and to assess the extent to which information needs of the Company in relation to its business objectives were being met by these systems.

(ii) To check the effectiveness of control in the system.

2.5 Audit Criteria

The main criteria used for audit were:

(i) Compliance with General Controls based on the observations made in the earlier IT Audit conducted in 2002;

(ii) Application Controls for MMIA/IMMS/Baan finance package module;

(iii) Control and Security parameters keeping in view best practices[1];

(iv) Corporate rules and Government guidelines.

2.6 Audit Methodology

During the IT Audit of the systems, the following were utilised:

(i) Study and analysis of the records concerned;

(ii) Discussion and interaction with the officers;

(iii) Collection of data and information through issue of questionnaire, audit requisitions, enquiries and replies thereon;

(iv) Data pertaining to MMIA was collected from Management and thereafter imported into IDEA/Dbase for further analysis;

(v) Verification of relevant records.

2.7 Audit Findings

In an earlier IT Audit report (August 2002), the absence of IT policy, Documentation policy, Computer Security Policy, Change Management Control, Storage of back up data, Recruitment/Personnel Policy and non-involvement of Internal Audit had been pointed out. The Management in its reply (November 2002) had assured remedial action but the

[1] ***Audit utilised COBIT audit guidelines for international best practices***.

deficiencies still persisted. Internal Audit Manual envisaged EDP Audit by the Internal Audit Department but such audit had not been carried out. In the absence of a clear cut IT policy and strategy, MMIA, the original software continued to be in use with all its deficiencies and the software IMMS and Baan introduced later could neither be integrated with MMIA nor put to use independently.

MMIA

The MMIA system comprises Stores Module and Cost Module. The Stores Module was being used by the Company for the accounting of opening stock, receipt of materials, issue of materials, closing stock, consumption, etc. The Cost Module was being used by the Company to ascertain the costs and to exercise cost control over the items manufactured. A review of these modules as on 31 March 2006 revealed the following:

2.7.1 Stores Module

2.7.1.1 Lack of input controls

Input controls ensure accuracy, completeness and timeliness of data input. It was observed in audit that there were no input controls and this coupled with absence of data validation procedures made the data unreliable. The following points were noticed during Audit:

(i) It was observed that though there was no consumption in respect of 1790 items valuing Rs.2.49 crore for the past three years, these items were neither marked as Quantity Record (QR)[] items nor marked as slow moving /dormant inventory as required by the existing guidelines. The Company was carrying these items as useful inventories though there was no consumption.

(ii) The date of last transaction in respect of 77 items valuing Rs.8.81 lakh was captured as a date prior to the date of incorporation of the Company and in respect of two items valuing Rs.14211 the date of last transaction was captured as September 9919 indicating absence of validation controls in entering/capturing data. The Management stated (July 2006) that the data might have been malformed during updation and efforts would be made to correct the same.

(iii) Though there was no consumption or receipt of material in respect of 385 items valuing Rs.18.05 lakh in 2004-05 and 610 items valuing Rs.19.36 lakh in 2005-06, the 'date of transaction' field indicated that they were transacted during 2004-05 and 2005-06 respectively. On further verification with 32 records it was found that dates of transaction in the data base did not match the last transaction date as in bin cards. Thus the correctness of data base of inventory could not be verified.

(iv) There was negative stock for 312 items valuing Rs.61.07 lakh in the Stores module which required reconciliation by the Company. In addition, there was negative consumption of 293 items (value Rs.43.44 lakh) during 2003-04, 229 items (value Rs.1.23 crore) during 2004-05 and 363 items (value Rs.54.89 lakh) during 2005-06. The existence of negative consumption figures during the above years and their non

[] ***QR= Quantity record i.e. items which were written off from the accounts and retained in the stores accounts in terms of quantity only without value***

reconciliation indicated lack of adequate controls. Consequently, the opening balances of the subsequent years were also not correct. As a result consumption for those years and cost of production were incorrectly computed to that extent.

2.7.1.2 Incorrect mapping of business rules

Inventory held in stock was classified as A, B or C with reference to the pattern of consumption during the previous year. 'A' class items constituted 70 *per cent* of value of consumption of previous year, 'B' class items constituted 20 *per cent* of value of consumption of previous year and the remaining 10 *per cent* represented 'C' class items. It was however observed that 17 items were classified as 'A' class items and 97 items were classified as 'B' class items though there were no consumption of these items after 1 April 2004. In the absence of any consumption during the last two years classification of these items as A and B was not correct.

The Company's manual for Inventory Management laid down that each item has to be classified with reference to consumption in each production division separately. The Company was actually following this procedure as exemplified by the fact that item DC4C1104090A1A1 was classified as 'A' in two production division stores but was classified as 'C' in six others. However, in respect of 17 items mentioned in the preceding para, the Management stated (July 2006) that the classification of any item irrespective of the consumption in a division, was updated with the determined class with reference to consumption in another division. The reply was clearly contrary to the procedure that was actually being followed by the Management in accordance with the Company's manual.

2.7.1.3 Process control

The stock in respect of 1067 items at the end of the year (March 2006) did not agree with the closing stock for the year as worked out with the help of formula (Closing stock = Opening stock + Receipts - Issues).

2.7.2 Cost module

To ensure that correct and relevant data were entered into the system and to generate reliable output, a proper control over the input of data supported by proper validation checks in the system was essential. A review of the cost module revealed that it was based on an incomplete data base due to the absence of input validation controls and incorrect mapping of the business process.

(i) 324 shop orders were opened without indicating the items to be manufactured.

(ii) The scheduled date of closing of shop order had not been captured in respect of 4056 shop orders and for 56 shop orders it was prior to the date of incorporation of the Company.

(iii) There was excess drawal of quantities over and above the authorised quantities in respect of 3686 shop orders relating to 7554 items valuing Rs.18.71 crore. Most of the shop orders were old and not regularised by way of increasing the authorised quantity.

(iv) Incomplete data entry relating to cost, quantity drawn and delivery value made the data base unreliable.

(v) In respect of 35 shop orders both cost and delivery values had not been captured.

(vi) In respect of 107 shop orders having a delivery value of Rs.20.50 crore, cost had not been indicated.

(vii) In respect of 264 shop orders, the details of delivery rate and delivery value had not been captured though 58498 items were shown in the cost module as manufactured and delivered at a cost of Rs.6.68 crore.

(viii) In respect of 2459 shop orders, the details of quantity delivered, delivery rate and delivery value had not been captured though Rs.104.53 crore was booked as cost.

(ix) In respect of 49 shop orders having a delivery value of Rs.47 lakh, the quantity delivered was not captured.

(x) In respect of 419 shop orders the quantity delivered (276029) was found to be more than the ordered quantity (203737). Though the cost had been indicated as Rs.5.36 crore, the delivery value was indicated as Rs.20.90 crore. A detailed review revealed that in respect of 21 shop orders, the ordered quantity and cost were indicated as Nil, though 39101 units had been manufactured and delivered with delivery value of Rs.18.06 crore, as seen in the Cost module.

(xi) Out of 3392 running shop orders, cost was not indicated against 1010 shop orders having a delivery value of Rs.20.36 crore indicating incompleteness of the data base.

In view of above, the data available in the cost module was not dependable and did not serve its purpose of ascertainment of costs and cost control.

2.8 Non integration of costing module with finance accounts

At the end of the year, from the total costs booked in cost module against each shop order the delivery value would be deducted and the balance would be carried as closing work in progress. The data for finalisation of accounts were captured manually and due to non-utilisation of Baan finance module, there was no integration of accounts with cost module. As a result the closing work in progress as on 31 March 2006 was valued at Rs.39.98 crore in the accounts, whereas as per the cost module the value of closing work in progress was Rs.80.03 crore, leaving an amount of Rs.40.05 crore unreconciled.

Other Points of Interest

2.9 Lack of internal controls in purchases resulted in unwanted purchase and blocking of funds of Rs.1.27 crore

A test check in audit revealed that 1190 items (bought out items-706 and manufactured-484) valued at Rs.1.27 crore were lying in stock without any consumption. Even though stocks were available in respect of 33 items as on 1 April 2004, the Company made further purchases for Rs.10.87 lakh during 2004-05 and all these items had not been consumed during 2004-05 and 2005-06. The MIS Reports on stock availability generated by the system

were not used while making purchase decisions. Purchase/manufacture of materials could have been made more judiciously in order to avoid locking up of funds in idle inventory.

2.10 Wasteful expenditure in investment made in IMMS and Baan

The investment of Rs.82.98 lakh in IMMS and Baan systems was not fruitful as the Company could not achieve the intended objectives. IMMS after implementation across the divisions was to take over the stores accounting function from MMIA. IMMS was developed at a cost of Rs.33.50 lakh. However, it was used partially in one division for production planning only and the company continued to use MMIA for stores accounting functions.

The Company selected the finance package of Baan system for implementation in six units at a cost of Rs.49.48 lakh for the Bangalore Complex. The data migration work was completed by December 2001. Baan Finance package was however not put into use as a fully operational system. Though it was originally intended to finalise the accounts using the software, the Company had not used this software to finalise the accounts so far (2005-06). Only one of the ten modules, viz. cash management was being used in a limited way, while other finance functions were maintained in other software on Excel, Dbase, etc.

2.11 Conclusion

The Company continued to carry out most of the functions manually even where computerisation had been done. Major activities of the Company were not carried out through IMMS and Baan software resulting in non-achievement of their objectives. Even MMIA, where data were being captured and used for finalisation of accounts, contained incomplete data base, lacked integration with accounts and lacked input controls. Thus the Company had made computerisation efforts in patches leading to non-achievement of the objective of total integration of the computerised functions.

2.12 Recommendations

- The Company should formulate a clear and comprehensive IT Policy.
- The Company should address the control deficiencies to make the system effective.
- Various modules developed during computerisation should be properly and effectively integrated.

The matter was reported to the Ministry in December 2006; reply was awaited (December 2006).