

2.3 THE MYSORE PAPER MILLS LIMITED

INFORMATION TECHNOLOGY SYSTEMS - APPLICATION AND GENERAL CONTROLS

Highlights

Lack of key controls rendered the pay roll package vulnerable to risk of incorrect payments.

(Paragraph 2.3.9)

Lack of key controls exposed the Main Accounts system to risk of incorrect and inaccurate reports being submitted for management decisions.

(Paragraph 2.3.10)

A strong system of physical and logical access control did not exist in the company.

(Paragraph 2.3.11)

There was no well developed business continuity plan to take care of IT assets in case of disasters.

(Paragraph 2.3.12)

Introduction

2.3.1 The Mysore Paper Mills Limited, Bangalore was incorporated in May 1936 and became a Government company in November 1977. The paid up capital of the Company as on 31 March 2006 was Rs.118.84 crore; contributed by State Government Rs.76.92 crore (64.70 *per cent*), Financial Institutions Rs.38.80 crore (32.70 *per cent*) and private parties Rs.3.11 crore (2.60 *per cent*). Presently, the Company is engaged in the manufacture of cultural and writing paper, newsprint and sugar. Towards its computerisation activities, the Company has spent Rs.2.28 crore so far on hardware and software and is incurring annually an expenditure of Rupees seven lakh for their maintenance. The Information Technology (IT) Organisation of the Company is headed by one Senior Superintendent reporting to the Assistant General Manager (Finance) at Bhadravathi. Important computer applications being used by the Company are Stores accounting, Payroll and Main accounts packages.

Scope of audit

2.3.2 Audit evaluated the General IT Controls and application system prevailing in the Company dealing with Stores, Payroll and Main Accounts (Financial Accounts) during March 2006.

Audit objectives

2.3.3 The audit objective was to evaluate the effectiveness, reliability and integrity of application systems, dealing with Stores, Payroll and Main Accounts (Financial Accounts) along with an evaluation of the general IT controls in the company.

Audit criteria

2.3.4 The audit criteria considered for assessing the achievement of audit objectives were manual data, electronic data, wherever made available, and manuals and procedures for implementation of Stores, Payroll and Main Accounts (Financial Accounts) packages.

Audit methodology

2.3.5 The sample data of the information contained in data tables received from the IT department of the company was scrutinized using the generalized audit software-IDEA.

IT policy and strategy

2.3.6 It was noticed in audit that in spite of investing significant amounts on IT assets, no strategic IT Plan had been drawn up to satisfy business requirements duly striking an optimum balance of IT opportunities and IT requirements. Consequently, no long-term plans and short-term goals were set for optimum use of IT assets. Moreover, there was no Planning/Steering Committee to oversee the IT function reporting to the Board of Directors/Senior Management. Importantly, IT function was not monitored as a cost centre to ensure that the benefits derived there from were cost justified. In fact IT assets were being acquired by various departments independently on *ad hoc* basis without a clear relation to business requirements; various departments of the Company had so far acquired IT assets worth Rs.2.28 crore

The Management while noting the audit observations stated that the Company is working out an IT strategy. It was further stated that an experts committee for advice/ teams to study the requirements have been set up and the future investments would be justified.

Deficiencies in development of computer applications

2.3.7 It was noticed in audit that though the Company had implemented many computer information systems investing significant sums in computer hardware, software and facilities, no structured approach for development and implementation of various computer applications has been adopted. The Company did not have a proper procedure for requests for proposals and their evaluation, and alternate courses of action satisfying the business needs were not considered by making a thorough technical and economic feasibility study.

There was no documentation, which contained critical information such as the nature and scope of each system development project. It was noticed that no documentation regarding the proposals for development of the payroll package and main accounts packages were formally made but these were developed in an *ad hoc* manner without covering all aspects of the payroll/accounts and fully automating the same. No user manuals/operation manuals were prepared. Though software packages were frequently changed to meet the various needs of the users no documentation of changes were available indicating the same.

The Management stated that structured approach was not adopted due to financial constraints and absence of technical staff and that the future projects would have a component of Facility Management Service to oversee the projects.

The main functions computerised in the Company are Stores, Payroll and Financial Accounts. Audit observations on deficiencies in each of them are given below:

Stores accounts

2.3.8 The system was developed by APTECH at a negotiated price of Rs.17 lakh in 1997. In August 2000, however, status report by Sr. Manager (Finance) indicated many lacunae in the package. The Company then belatedly realised that the software supplied was not the one promised by the firm, and further it could not satisfy several laws like the Companies Act, 1956. However, when APTECH was addressed during July 2001 to complete the project it replied that the project could be completed only if the Company agreed to introduce new technologies since the technology adopted and the work done at the Company was outdated. The Company was, thus, constrained to use the package only to a limited extent in stores and inspection sections to handle receipts and indents of materials and it was forced to maintain the inventory data in Kardex systems.

The accounts section of the Company used a FoxBASE application to handle accounts of inventory keying in again the data from stores, purchase and cash sections. The package had many deficiencies such as:

- * system accepting issues more than stock on hand;
- * non prompting of minimum, maximum, reorder level and economic order quantity;
- * non-supporting of classification into high, medium and low value stores (ABC analysis); and
- * non-validation on completion of a purchase order and not generating quantity of purchase orders pending.

It was also noticed that the master table of stores contained blank descriptions (326 items), duplicates (8,114 items) and junk descriptions (126 items). Out

of 83,358 records the balances of items involving Rs.36.03 lakh was indicated as negative at the end of 2004-05, as if the material issues made were over and above the balance held in stock. Reports from such database are bound to be inaccurate and hence not useful for decision-making.

It was further observed that the finished goods accounting were yet to be computerized and the purchase section was partially computerised. Similarly, only about half of engineering spares were computerised in purchase section. Thus, the information relating to a large number of stores remained outside the computer system. Importantly the master table of stores section contained 80,000 records against only 50,000 records in master tables of finance section. This also led to non-linking of purchase orders to receipts and indents necessitating frequent addition of items to master tables in finance section.

The Management noted the audit observation and stated that the Company had constraints of insufficient IT personnel and it will be ensured that safety measures are incorporated in future systems.

Payroll package

Lack of key controls rendered the payroll package vulnerable to risk of incorrect payments.

2.3.9 The Payroll package of the Company was running in COBOL/UNIX database up to the year 2000. The Company, in the year 2000, developed in house with some hired help a new package in ORACLE/Developer 2000. The package serves the purpose of handling payroll of about 2,800 employees.

It was noticed in audit that certain important changes effected were not frozen by the system, for example retired and dead cases once marked could be revived by removing the flag or changing them and the authorities sending the soft copies did not authenticate the inputs.

It was further noticed that though the attendance of the employees was recorded through “Badge Reader” machines, but in cases where the employees swiped the bar coded cards provided to them, no attempt was made to link the attendance details to payroll directly. Instead machine data was downloaded to a data base file and posted to manual ledgers and at the end of each month a detailed statement was sent to payroll section indicating details of admissibility of hazardous allowance, attendance incentive, overtime, recovery to be made for absence, etc. Due to non-linking of card readers to payroll, information flow was slow, the attendance particulars furnished were required to be modified in subsequent months as and when various departments provided more information. Thus, much of payroll work was still carried out manually with associated risks of data entry error.

Audit also observed that data entry of basic pay was not validated for a range of minimum and maximum of a pay scale and in case of non release of increment, the system did not support reduction of pay automatically as per practice. The system did not prompt for increments due and instalments/balances of recovery of advances were also not prompted or updated automatically. Dues in respect of electricity charges continue to be watched manually. Similarly, the entitlement of several allowances, category

of employee for attendance incentive was not determined by the system but was manually keyed in.

Though the master tables containing the entitlements of all the employees had been populated in the year 2000 and were constantly undergoing changes by way of addition, deletion and modification, audit trails of users who caused the changes were not provided for. Moreover, the master table maintained was not independently checked with the personnel department. It was seen that the number of employees as per data base varied with the information published by the Company in its annual reports. It was noticed in audit that Payroll data table relating to 2003-04, furnished by the Company contained 462 cases of payments involving Rs.10.49 crore, which was found in the database of 2002-03 also. It was stated that duplication in the data table was required for making arrears of DA calculations for the period January to March of previous year, which indicated the limitations of the design of the package.

The Management stated that all the observations would be taken care of in the proposed study being undertaken.

Main Accounts (Financial Accounts)

Lack of key controls exposed the system to risk of incorrect and inaccurate reports being submitted for management decisions.

2.3.10 It was noticed in audit that the process culminating in the finalization of Main accounts were being run on a variety of applications. The Main Accounts of the Company were being processed using an application package in FoxBASE in finance section at Bhadravathi, since 1998-99. The inputs to the package were received from different departments in batches. Further, inputs also comprised of Cash accounts maintained with Visual FoxPro and bank transactions compiled in FoxBASE. Transactions compiled in MS Access at Bangalore office and sales transactions compiled in 'TALLY' software from branches and Bangalore office were received. Manual journal entries summarizing transactions were received from various other units of finance section. Thus, different branches were running programs in different platforms. As the master tables were not common to all sections, the errors had to be identified at the EDP Section and communicated for corrective action back to different sections.

It was noticed in audit that the system had the following deficiencies:

- * The system did not support calculation of depreciation charges but were keyed in after manual calculation.
- * The package accepted data keyed in without validations for dates. It was noticed that 468 transactions (260 Debit items valuing Rs.35.97 crore and 208 Credit items valuing Rs.36.23 crore) were shown as relating to year 1905.
- * The package did not support self balancing of transactions as total of debits and credits did not tally in some data tables.

The Management noted the observations and stated that safety measures would be incorporated in future systems.

A strong system of physical and logical access control did not exist.

Access Controls and Segregation of duties

2.3.11 Password controls were found to be poor and there was no provision to prevent the password to be same as user IDs. There was no mechanism to detect and act upon unsuccessful log-ins and there was no restriction of number of unauthorised attempts. Moreover, there was no firewall to protect the data and systems from intrusions from internet and public network. It was also observed that access to important servers was not under lock and key and employees and visitors were seen to be having free access to the server room. No segregation of duties was observed for functions like data entry, system administration, system development and maintenance, change management and security administration; no job description documents were maintained.

The Management noted the observations and stated that safety measures would be incorporated in future systems.

Business Continuity Planning and Data security

There was no well developed business continuity plan to take care of IT assets in case of disasters.

2.3.12 No IT continuity plan was drawn up. Moreover, no procedures and guidelines were in place to retain source documents so that data was reproducible and to facilitate reconstruction in case of disasters. This was important as many packages were running in older versions of FoxBASE and ORACLE.

The Management noted the observations and stated that safety measures would be incorporated in future systems.

Acknowledgement

Audit acknowledges the co-operation and assistance extended by the staff and the Management of the Company and officers of the Government at various stages of conducting the performance review. The matter was reported to the Government (August 2006); their reply is awaited (September 2006).

Conclusion

The Company having spent a large sum of money substantially computerising its activities has not been able to get the desired benefits. This was mainly due to lack of an IT strategy not only in acquisition and development of a large number of IT systems but also in their maintenance. The applications dealing with Stores, Payroll and Accounts have serious design deficiencies and are being run in a poorly controlled environment posing a risk to the integrity of the information processed and contained therein.

Recommendation

Immediate measures should be taken to address the deficiencies in the acquisition and development of the IT systems dealing with Stores, Payroll and Accounts.