

**2.2 Information technology audit of “Value Added Tax Information System (VATIS)” in Commercial Tax Department**

**Highlights:**

**System design deficiencies resulted in non-capturing of purchase details, incorrect entry of carry forward and refundable amount etc.**

**(Paragraph 2.2.7.1, 2.2.7.2)**

**Non-integration of modules resulted in utilisation of waybill by dealers other than the dealer to whom it was issued and before its issue date.**

**(Paragraph 2.2.8)**

**Lack of input controls led to incomplete and inaccurate database like issue of multiple registration numbers to the same dealer, entry of invalid vehicle number and waybill number, wrong entry of tax payable/due, non-entry of dealer details etc.**

**(Paragraph 2.2.9)**

**Absence of validation controls led to inaccuracies in the database like entry of refund claim without export, acceptance of payment after filing of return, exit of vehicle at the entry check gate, acceptance of unusual time to exit the border check gate, repeated utilisation of waybill etc.**

**(Paragraph 2.2.11)**

**Lack of adequate security controls resulted in multiple users having the same password, unauthorised data entry and modification of data etc.**

**(Paragraph 2.2.12)**

**Absence of online entry of ‘out-to-out’ vehicles allowed the defaulting vehicles to escape from detection of fraud/evasion of tax.**

**(Paragraph 2.2.13.3)**

**2.2.1 Introduction**

The Government of Orissa repealed the Orissa Sales Tax Act, 1947 and enacted the Orissa Value Added Tax Act (OVAT), 2004 for implementation with effect from 1 April 2005. As per OVAT Act, a dealer pays tax on the value added to the purchase value of a commodity. Unlike the sales tax regime there is no statutory assessment of dealers. Instead, only 20 *per cent* of the dealers, selected on a random basis, are subjected to tax audit annually by the department.

The Commercial Taxes Department (CTD) is responsible for collection of sales tax, entry tax, entertainment tax and professional tax in the state of Orissa. The Department for International Development (DFID), UK, approved a project in support of the Government of Orissa Public Sector Reform Plans (OPSRP) in March 1999. One of the components of OPSRP was “Strengthening and Modernisation of the Commercial Taxes Organisation under Finance Department”. The DFID assistance aimed at improving the sales tax system and introducing value added tax in the state. The first phase of assistance from DFID was available during the period from 1999-2000 to 2004-05 in the field of organisational restructuring, training, publicity and computerisation. DFID provided the hardware through M/s CMC, software through M/s Mastek and training to departmental officers through M/s Price Waterhouse Cooper.

**It was decided to conduct an IT audit of Value Added Tax Information System (VATIS) in the Commercial Tax Department. The review revealed a number of system and other deficiencies which are discussed in the succeeding paragraphs.**

### **2.2.2 IT organisational structure**

The IT Department in CTD is headed by the Additional Commissioner of Commercial Taxes (Revenue & IT) assisted by three officials including a system analyst. All technical personnel in the IT wing, including the system analyst, are working on a contractual basis. Besides its head office at Cuttack, the department has 10 territorial and four intelligence range offices, 44 circles, 11 assessment units, four unified check gates and 18 minor check gates geographically spread across the State for administration and collection of taxes.

### **2.2.3 Information systems set up**

VATIS was developed using SQL server 2000 as the database on the Net framework. The IT system architecture is web based and has a distributed database system. Out of 107 offices of the CTD, 83 offices were supplied with computers as on March 2007, 60 offices were supplied with local area network (LAN) and 50 offices with wide area network (WAN) through BSNL leased lines (64Kbps). M/s Mastek Ltd has developed the software “VATIS” which contains 14 modules<sup>6</sup>. The CTD however, is operating only six modules viz. dealer information system (DIS), return, statutory form management, check post monitoring (CPM), personnel monitoring information system (PMIS) and security.

The DIS module captures detailed data about the dealers and their business activities and generates the registration certificate number. The return module captures the detailed data as furnished by the registered dealers manually in

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6 Dealer information system (DIS); Return; Audit; Assessment; Personal management information system (PMIS); Security; Statutory form management; check post monitoring (CPM); Enforcement and intelligence; Budget and establishment; Legal; Recovery; Individual taxpayers’ ledger (IRL); MIS and performance monitoring

the prescribed forms through periodical returns. In the CPM module the inter-state movement of vehicles at the border check gates is recorded. The statutory form management module deals with issue and utilisation of statutory forms such as C form, F form, waybill etc.

#### **2.2.4 Audit objectives**

The audit objectives were to assess whether:

- ☞ the system met the requirements of the OVAT Act and was synchronised with the critical business of the department;
- ☞ proper input, validation and process control existed in the system to ensure that the data captured was authentic, complete and accurate;
- ☞ the database provided sufficient, complete, reliable and authorised information for management action; and
- ☞ adequate security measures were in place.

#### **2.2.5 Scope and methodology of audit**

The review of VATIS covering five modules (DIS, return, statutory form management, CPM and security module) was conducted between November 2006 to June 2007 in three range offices (Puri, Cuttack-I and Sundargarh), two circle offices (Bhubaneswar-I and Cuttack-I-Central) and one check gate (Jamsolaghat) using a computer aided audit tool. The findings were also cross-checked with manual records on a sample basis.

#### **2.2.6 Acknowledgement**

Indian Audit and Accounts Department acknowledges the co-operation of the Commercial Tax Department in providing necessary information and records for audit. The audit findings as a result of test check of the system and the records were reported to the Government in September 2007.

The Commissioner of Commercial Taxes (CCT), Orissa while welcoming the audit findings (November 2007) attributed the lapses to incomplete hardware and Wide Area network as a result of which VATIS could not be made fully operational, shortage of officials as well as IT skilled manpower to validate the data input into the system, non-coverage of the CPM of the VATIS in all the border check posts, instability of the data circuits provided by BSNL and regular failure in connectivity, frequent changes in the VATIS due to amendment of the VAT Act and other related Acts etc. It was also stated that steps had been taken to change the software and install necessary process control/validation checks.

#### **Audit findings**

**It was observed that the system had deficiencies relating to system design, input and validation controls, and security and access controls, which resulted in ineffective and inefficient management of the system and**

rendered the information generated completely unreliable. The audit findings are discussed in the succeeding paragraphs.

### **System design deficiencies**

#### **2.2.7 Return module**

**2.2.7.1** The OVAT Act provides a structured format (VAT 201) for filing returns. This contains vital information for the assessment of dealer. Audit scrutiny revealed that the software did not have provision for capture of details of purchases not covered under the various categories i.e. purchases under different tax rates, inter state trade, imports, stock transfer etc., although data regarding the value of such purchases was captured. Data analysis revealed that in 1,963 returns, purchases valued as Rs. 226.54 crore were entered without such details, thereby restricting the department from obtaining vital information available from the dealer's return.

**2.2.7.2** The dealer can claim refund and/or carry forward the tax amount, in case creditable input tax is more than the output tax. If output tax is more than the input tax the dealer has to pay the difference. It was, however, noticed that in 521 cases, refund/credit carried forward amounting to Rs. 378.24 lakh was entered, though there was tax payable on account of lesser input tax. Similarly, in 1,239 cases, the total of refund claim and carry forward did not tally with the difference between input tax and output tax and the difference ranged from (-) Rs. 3.70 crore to Rs. 58.54 crore. This indicated defective design and lack of validation among the respective input fields. Manual checking revealed data entry mistakes in 20 out of 22 cases.

**2.2.7.3** The return form requires details of the amount of input credit tax carried forward from the previous month. However, the system does not provide for automatic carry forward of the input tax amount of the previous month. This led to reliance on the manual data entry only, due to which a difference of Rs. 6,616.39 crore was observed in 7,661 cases in two circles.

**2.2.7.4** The return form prescribes columns for entry of purchase and sale value and tax thereon at one, four and 12.5 *per cent* of tax respectively with a view to work out the creditable input tax and output tax respectively. It was however, noticed that there was a difference in the tax entered amount and actual tax claimed/due thereagainst. Manual checking of 28 cases revealed that in 26 cases there was wrong data entry and in two cases, the dealers had actually filed the returns furnishing wrong information.

**2.2.7.5** The dealer has to pay the tax on or before the date of filing of the return. In case of delayed payment, interest at two *per cent* per month is leviable. In 7,836 cases, the system accepted entries of payment of tax made after the prescribed period of which in 7,353 cases, interest for belated payment was not separately entered even though the system provides fields for such entry.

### **2.2.8 Non-integration of modules**

**The CPM module was not integrated with the DIS and statutory form management module, which resulted in the following:**

**2.2.8.1** In 6,022 cases, the system accepted utilisation of waybills by dealers other than the dealer to whom these were issued. Manual check revealed that this happened due to erroneous data entry. Lack of integration of the statutory form management module and the CPM module led to failure of the system to detect the mismatch between taxpayers identification number (TIN) as mentioned in the statutory form management module and the entries made in CPM module.

The waybills were issued by the range offices. The utilisation of these waybills was checked at the check gates. Due to lack of integration between the statutory form management module at the range offices and CPM module at the check gates, the waybills were shown as utilised before the date of their actual issue to the dealers from the range offices in 27,644 cases. Manual checking revealed that the issue details were entered into the system belatedly after the actual issue of the form.

**2.2.8.2** The DIS module is maintained in the range offices for keeping the details of the dealers. The system is required to show the status of the dealer correctly i.e. registered, unregistered or casual and should not treat a particular dealer differently on different occasions of movement of goods. Audit scrutiny of the CPM module at the check gates revealed that in 517 cases the system exhibited wrong status in respect of 252 dealers indicating non-integration of the CPM module with the DIS module.

### **Input controls**

**Input controls ensure that data entered into the system is authorised, complete and correct. The audit revealed that the system lacked input controls, as it did not ensure complete and correct collection of the required primary data in its database.**

### **2.2.9 Inaccuracies in Data**

**Absence of various input controls led to entry and acceptance of incorrect data in the database which made the system unreliable as is evident from the cases cited below:**

#### **DIS module**

**2.2.9.1** A dealer should not be issued more than one certificate of registration for his business in the State. Analysis of the database revealed that in 184 cases the system generated more than one registration number for a dealer even though the details like the name of the dealer, father's name, address, phone number and even PAN were same. Test check of the manual records also corroborated the facts.

**2.2.9.2** It was further revealed that commodities dealt with by the dealers were not entered correctly, which is a vital information to prevent evasion of tax as different commodities are taxed differently. Test check of 25 manual records corroborated the facts.

#### **CPM module**

**2.2.9.3** The success of the CPM module largely depends upon the correct entry of the vehicle number. In case of a new vehicle, the system asks for the owner's name, address and telephone number, which is saved in the 'Vehicle Master File'. Once any data is entered in the master file, no modification can be made. Due to lack of proper input control, 498 invalid vehicle numbers were entered, where the number of digits in the vehicle number was more than eight or last digit was ending with alphabets or number of two vehicles were entered as one number or the vehicle number in a series was more than 9,999 or the vehicle number started with a numeric. In addition to this, the owner's name, address of the owners of the vehicle etc., were also not entered.

**2.2.9.4** In case a vehicle does not exit through the declared check gate in case of 'out-to-out' movements (where the originating and destination state is not Orissa), the system should not allow data entry of that particular vehicle for any type of movement on subsequent occasions. It was, however, noticed that the system accepted entry on subsequent occasions in respect of 42 vehicles which had not exit on the last occasion as the data entry was erroneously made. One such example is given below:

Vehicle Number AP-05, U-9969 entered through Jamsola check gate on 2 February 2007 and declared that it would exit through Girisola check gate on 4 February 2007 but did not exit through the declared check gate. However, the same vehicle again entered with Vehicle number AP5U9969 through Jamsola check gate as 'out-to-in' movement (where the destination state is Orissa).

**This indicated that due to lack of proper input control, the system allowed manipulation of data. Thus, the purpose of monitoring out-to-out movement of vehicles with a view to avoid tax evasion through the computerised system has not yielded the desired result.**

**2.2.9.5** The total way bill serial number in any series can not exceed 10 lakh and contains two alphabetical series code initially like AD, AE, AF, AG, AH etc. The system accepted 289 waybills having invalid serial numbers carrying goods worth Rs. 48.81 crore due to absence of proper input control.

#### **Statutory form management module**

**2.2.9.6** Statutory form management module prescribes for online requisition and issue of various statutory forms. **It was, however, observed that all the procedures are being followed manually and data entry is being done subsequently, rendering the computerisation effort meaningless.** Test check of the records revealed that the names of the dealers to whom forms were actually issued were different from those entered in the database due to errors in subsequent data entry.

### **2.2.10 Incomplete data entry**

**Absence of input controls also led to incomplete database making the system unreliable as is evident from the cases cited below:**

#### **DIS module**

**2.2.10.1** In order to obtain automatic registration number of a dealer, certain information is required to be entered. Such information being important, data capture in these fields should have been made mandatory. Analysis of the database, however, revealed that the registration number was being generated without entering the required information as detailed in the **Annexure I**. This resulted in incomplete database in respect of the registered dealers.

#### **Return module**

**2.2.10.2** It was observed that in 23,319 records, purchase/sale details were not entered, though the dealer had declared that he had affected purchases or sales.

**2.2.10.3** The return form provides for information regarding various types of input tax credit, details of which are required to be entered. It was, however, observed in 1,806 out of 1,873 cases, the details were not entered in the system.

**2.2.10.4** Every dealer is required to pay the full amount of tax payable according to the return on or before the due date. Scrutiny of the database revealed that in 7,329 cases, only details of payment of tax was entered without the corresponding entry of purchase and sale details. Therefore, the database was incomplete.

#### **CPM module**

**2.2.10.5** In case of out-to-out vehicles, entry of registration number of the dealer transporting the goods using a particular vehicle is required for tracking the vehicle in order to prevent evasion of tax. However, in most of the cases, registration number of the dealer was not entered. Similarly, in case of in-to-out and out-to-in vehicles, waybill numbers and total invoice value of goods transported were not entered in 769 cases. This resulted in an incomplete database.

**2.2.10.6** For out-to-out vehicles, the date of exit and the exit check gate name are required to be entered. It was noticed that the system accepted incomplete data entry as in 258 cases the exit date was not entered and in 843 cases the names of exit check gates was not entered.

### **Validation controls**

**2.2.11 Lack of validation controls were also noticed in the software in various modules, which are discussed below:**

### DIS module

**2.2.11.1** The system accepted the date of tax liability before the date of commencement of the business in 388 cases.

### Return module

**2.2.11.2** When a dealer exports goods, he is entitled to claim refund. It was, however, seen that though there was no entry regarding export, the software accepted entry for refund in 287 cases due to lack of validation controls. Manual verification revealed that out of 10 cases, in seven cases the data entry was erroneous. Manual intervention prevented payment of refunds in these cases.

**2.2.11.3** Every dealer is required to file a return accompanied by a receipt towards the tax paid for the full amount of tax payable as per the return. Thus, the dealer has to pay the tax on or before the date of filing of return in any case. In 84 cases, the system accepted payment of tax after the return was filed due to lack of validation control.

### CPM module

**2.2.11.4** The CPM module is required to generate a mismatch report in the event of a vehicle exiting through a check gate other than the declared gate. An out-to-out vehicle cannot exit through the entry check gate. Scrutiny of the database revealed that in 1,635 out of 3,20,160 cases, the vehicle exited through the entry gate, which happened due to lack of proper validation control.

**2.2.11.5** Further, in no case can the date of exit precede the date of entry. In 331 cases the software accepted the date of exit as prior to the date of entry due to lack of validation control.

**2.2.11.6** The distance between various check gates as well as the probable time taken to cover such distance are known to the department. These details, however, have not been incorporated in the software, resulting in acceptance of unusual expected time period (3 to 20,820 days) to exit from the state of Orissa. Further, it was seen that in 5,261 cases, the vehicles actually took between 11 to 3,653 days to exit. **Lack of entry of parameters in the system led to lack of proper validation control, which resulted in improper monitoring of such vehicles.**

**2.2.11.7** The registration number (TIN) should be a number comprising eleven digits. The first two numbers being the State code should be 21 and the fifth and sixth numbers should be 11 to 20 being the range code. This is required to be mentioned in the waybills. **Due to lack of integrated modules (CPM and DIS) registration numbers had to be fed again in the CPM module at the check gates.** It was noticed that due to poor validation control, the software accepted invalid registration number in respect of 3,614 registered dealers.



**2.2.11.8** Waybills issued by the department are a vital document for inter state transactions and should be utilised only once. Unregistered dealers are not issued waybills by the department. Due to lack of validation control, the system allowed repeated use of 81 numbers of waybills. The system also allowed use of waybills by 237 unregistered/casual dealers. Manual check of 10 cases pertaining to Jamsola check gate revealed that such type of irregularities occurred due to wrong entry of waybill serial number.

#### **2.2.12 IT Security**

The SQL server has inbuilt security measures. **The application software, however, has not incorporated some of the security aspects, resulting in unauthorised entry of data. Besides this, necessary access controls were also not embedded in the software.** The inadequate security measures observed are narrated below: -

**2.2.12.1** The system does not force change of password at regular intervals. It was observed that 105 out of 121 users were sharing the same password. The passwords have remained unchanged since the installation of the system.

**2.2.12.2** The application continued to have users with active privileges even after their transfer and data entry was being done using their user IDs.

**2.2.12.3** In one check gate contractual data entry operators are using the Commercial Tax officer's user ID for data entry.

**2.2.12.4** In 5,939 cases, the same user made both the entry as well as the exit details of the vehicle, though the exit gate was located several hundred kilometers away from the entry gate.

**2.2.12.5** **There is inadequate provision of function specific users under each module in the system.** Taking advantage of that, users were making data entry in some functions, which were not allowed to them as per the Act. It was seen in audit that the assignment of officials for scrutiny and survey and disposal of registration application in the system were being conducted not by the range officers but the clerks/stenos etc.

**2.2.12.6** The system provides for an unique function in the return form, where, after entry of all details furnished by the dealer the data is saved in the database with a flag indicating complete data entry. No changes are accepted by the system once this flag was activated. In the absence of the flag, the data could be modified. Analysis of the database revealed that 19,751 out of 75,671 returns were not entered completely for upto 553 days, thus leaving scope for subsequent modification of the data. Audit analysis further revealed that in 3,080 cases, the returns data was modified subsequently, of which in 2,408 cases other user IDs were used.

**2.2.12.7** **The system does not provide an audit trail for recording the details of the modification of data in between the first creation and last modification.**

## **Other deficiencies**

### **2.2.13 Non-utilisation of the system**

**2.2.13.1** The system was designed to capture the complete workflow of the process of issue of the registration certificate, like the assignment of officer for site survey, scrutiny of documents etc. The system allowed issuing of registration certificate on the same day of the receipt of the application for registration even though these manual processes were not completed in 6,802 cases. Verification of 100 cases revealed that data was entered in the system after all the required procedures were completed manually which defeated the objective of computerisation.

**2.2.13.2** Every dealer is required to file a return within 21 days from the date of expiry of the tax period. In 41,453 out of 75,671 cases, the returns were filed beyond the prescribed period of 21 days, which ranged upto 599 days. Manual records revealed that in 7 out of 22 cases, the data entry was made after the actual receipt of return and in 15 cases the dealer had filed the return belatedly. In this connection it was seen that the returns are filed in the circle offices where they are received, stamped and passed on for data entry. The acknowledgement is supposed to be generated through the system. However, the manual system of acknowledgement of receipt is still in vogue, which can be seen from the delays in the entry of the returns received earlier. Thus the automated workflow as envisaged through the system was absent and manual intervention and input errors made the data unreliable.

**2.2.13.3** It was noticed that the data entry of out-to-out movements are not made on-line due to insufficient number of data entry operators at the check gates. The vehicles are allowed to exit the check gate on receipt of the transit pass issued at the entry check gate without entering the data into the system. As per the system requirement, in case a vehicle has not exited through the declared check gate on a previous occasion, the system should not accept data entry of any type of subsequent movement in respect of such vehicles. The fact of non-exited vehicles on previous occasions can be known only when the data entries are made in the system. However, due to belated data entry, the offending vehicle would already have been allowed by the check gate authority to exit the gate. Thus absence of online entry of vehicles resulted in allowing the defaulting vehicles to escape detection of fraud/evasion of tax without any audit trail in the system.

### **2.2.14 Generation of wrong report**

**2.2.14.1** Audit observed that the system generates an erroneous MIS report in the event of a dealer filing a revised return. It is showing an excess amount as received taking into account the tax initially paid and the total tax paid including additional tax as per the revised return, thus leading to erroneous MIS report apart from increasing the revenue collected.

**2.2.14.2** The software provides 90 days as the time period for the disposal of an application for registration. In 821 cases, the registration application was disposed after the prescribed period and time period ranged upto 321 days.

Manual check of 30 cases revealed that the registration application was actually disposed of within 90 days. In these cases, the applications were received much after their date of receipt shown in the software. This indicated that the receipt of application for registration was entered without the actual availability of the application for registration.

#### **2.2.15 Conclusion**

Computerisation was undertaken with a view to enhance the efficiency of the organisation in implementing the OVAT Act and Rules made thereunder. The provisions of OVAT Act and Rules, however, were not incorporated fully into the application software (VATIS), resulting in various irregularities such as acceptance of wrong entries, generation of wrong reports, acceptance of invalid registration number, vehicle number, waybill number etc. Besides, the integrity of the data was questionable in view of lack of proper security and access control. The IT system was, thus, unable to address the business needs and the computerisation efforts did not yield the expected results.

The VAT scheme envisages selective audit of dealers. The department has to rely entirely on the system generated details for selection of dealers for assessment. This entails correct and complete data entry, stringent validation controls, proper program logic, accurate output control and integration of the relevant modules to enforce these controls. The system in the present shape was not in a position to deliver the desired results as adequate assurance cannot be reposed in the system due to incomplete, inaccurate and unreliable data. The department, therefore, should address the system deficiencies in order to reap the intended benefits of computerisation.

#### **2.2.16 Recommendations**

The Government may consider the following:

- \* a designated official in each data entry centre should check the data entry as correct and complete and provision for such certification should be embedded in the system. Unless such certification is available, data should not be allowed to be processed further;
- \* stringent input and validation controls should be built into the system to ensure that unauthorised, invalid and non-existing data is not fed into the system;
- \* the system being spread all over the state, the existing leased lines (64Kbps) should be upgraded for uninterrupted data flow among check gates and field offices;
- \* distinct user identification and authentication should be provided to all the users for better security and monitoring. The system administrator should ensure cancellation of password at periodical intervals and users should be prompted to create their own passwords; and
- \* integration of the relevant modules should be ensured.