

### **3.2 Information Technology audit of “VAHAN” in the Orissa Motor Vehicles Department**

#### **Highlights**

Non-imposition of penalty/daily damages amounting to Rs. 1.87 crore due to delay in completion of the smart card based registration certificate project.

*(Paragraph-3.2.8.1)*

Non-imposition of penalty of Rs. 1.06 crore for not achieving the Scheduled Commercial Operation Date by the concessionaire.

*(Paragraph-3.2.8.2)*

Non-imposition of late fine of Rs. 29.31 lakh for delay in issue of smart card based registration certificates by the concessionaire.

*(Paragraph-3.2.9)*

Short realisation of one time tax and non-realisation of entry tax due to non-inclusion of ET field in the database.

*(Paragraph-3.2.13.1)*

Inadequacy of input controls resulting in duplication of engine and chassis numbers.

*(Paragraph-3.2.13.2)*

Inadequacy of input controls resulting in registration of two or more vehicles under the same insurance cover note.

*(Paragraph-3.2.13.3)*

Partial data capture resulting in presence of incorrect data in key fields.

*(Paragraph -3.2.13.4)*

Inadequacy of validation controls resulting in capturing of irrelevant dates and incorrect values in various fields, rendering the database unreliable.

*(Paragraph-3.2.13.5)*

#### **3.2.1 Introduction**

The Motor Vehicles (MV) Act, 1988 vests upon the State Government the responsibility of providing an efficient public transportation system, registration of vehicles, issue of driving licenses, road permits, fitness certificates and collection of road taxes. The State Transport Department administers and implements the above activities. It is also entrusted with policy making, co-ordination, implementation, monitoring and regulatory functions of all transport related activities and enforces transport rules to

collect tax and fee. The Regional Transport Officers (RTOs) implement the Orissa Motor Vehicles Taxation (OMVT) Act and Rules for the state.

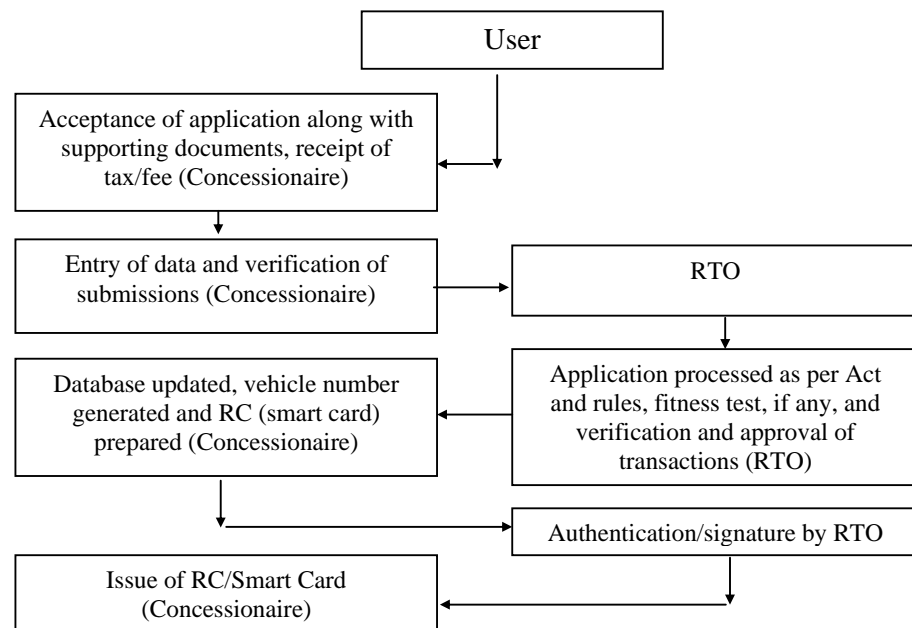
### 3.2.2 Organisational setup

The Transport Commissioner-cum-Chairperson, State Transport Authority (STA), Orissa is the head of the department and the apex controlling and monitoring authority. He/she is assisted by three Additional Commissioners, one Secretary, three Deputy Commissioners functioning at zonal levels, 26 RTOs<sup>44</sup> and three<sup>45</sup> Additional Regional Transport officers (ARTOs) functioning at regional levels. The Information Technology Department in the Orissa Motor Vehicles Department (OMVD) is headed by the Additional Commissioner of Transport (Technical). National Informatics Centre (NIC) (Orissa unit) has been providing technical assistance for customisation and backend integration for implementation of 'Vahan'.

### 3.2.3 Overview of the system

The registration of motor vehicles through smart card based registration certificate (SCBRC) under e-Governance was introduced with the application software 'Vahan' using Java as the front-end application programme and Oracle 10G for the backend database. The project was outsourced to the concessionaire M/s Smart Chip Limited (SCL), New Delhi in July 2006 on build-own-operate-transfer (BOOT) basis for a period of 15 years.

The processes involved in the system are summarised below:



44 RTOs - Angul, Balasore, Bargarh, Bhadrak, Bhubaneswar, Bolangir, Chandikhol, Cuttack, Dhenkanal, Gajapati, Ganjam, Jagatsingpur, Jharsuguda, Kalahandi, Keonjhar, Koraput, Mayurbhanj, Nabarangpur, Nayagarh, Nuapada, Phulbani, Puri, Rayagada, Rourkela, Sambalpur and Sundargarh.

45 ARTOs - Barbil, Khurda and Rairangpur.

### **3.2.4 Audit objectives**

The audit objectives were to assess whether:

- the project was commissioned within a reasonable time;
- the performance of the concessionaire was in accordance with the agreement signed with the Government of Orissa (GoO);
- the department was able to effectively utilise the software for the registration of vehicles and realisation of fees/ tax;
- the ‘Vahan’ software met the requirements of the Motor Vehicles Act, 1988, Orissa Motor Vehicles Taxation Act, 1975 and the Rules made thereunder and was synchronised with the critical business needs of the department; and
- proper input, validation and process controls existed in the system to ensure that the data captured was authentic, complete and accurate.

### **3.2.5 Audit scope and methodology**

The scope of the IT audit included the audit of implementation and examination of controls in the application software “Vahan” viz. registration of vehicles and allied activities and collection of taxes and fees for the period from the date of implementation up to October 2008 and a review of the performance of the concessionaire.

Apart from the office of the State Transport Authority (STA), eight<sup>46</sup> regional transport offices were selected on the basis of random sampling. The database of these RTOs was provided by the Transport Department in the shape of DMP files, which were imported and analysed through CAAT<sup>47</sup>.

### **3.2.6 Audit criteria**

The provisions of the following Acts and Rules were used as audit criteria.

- Motor Vehicles Act, 1988
- Central Motor Vehicles Rules, 1989
- Orissa Motor Vehicles Taxation Act, 1975
- Orissa Motor Vehicles Rules, 1993
- Concession agreement between the Government of Orissa and M/s. Smart Chip Limited, New Delhi dated 29 July 2006
- Best practices followed for IT implementation.

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<sup>46</sup> Angul, Bhubaneswar, Cuttack, Jharsuguda, Nabarangpur, Rayagada, Rourkela and Sundargarh.

<sup>47</sup> Computer Assisted Audit Techniques

**3.2.7 Acknowledgement**

Audit acknowledges the co-operation of the STA in providing necessary information for the IT audit. The observations of the audit were communicated to the department in June 2009. The replies of the department (July 2009) have been suitably incorporated in respective paragraphs.

**Audit findings****3.2.8 Deficiencies in execution of the project by the concessionaire****3.2.8.1 Audit scrutiny revealed the following shortcomings in execution of the project by the concessionaire**

The concessionaire was to establish the project facilities and undertake implementation of the project in conformity with the project completion schedule and the project milestones so as to achieve the commercial operation date (COD) on or before the scheduled commercial operation date (SCOD) by 11 December 2006, i.e. within 135 days from the date of signing the contract. In the event of failure in completing the works other than commercial operation date within a period of 30 days from the scheduled date, the concessionaire was liable to pay damages to the GoO at the rate of Rs. 20,000 per day until its completion.

The table below indicates the extent of achievement of the important items of work by the concessionaire.

Scope of the work	Due date of completion	Position as on 31 July 2009
Backlog entry of Registration Certificate and MV Tax for the last 14 years, and permits for the last five years prior to commercial operation date	11 December 2006	Not completed
Setting up of website	11 December 2006	Not set up
Online connectivity between RTOs and STA and creation of central database for maintenance of real time records	11 December 2006	Not done

As per the agreement, the GoO was required to impose penalty/daily damages of Rs. 1.87 crore<sup>48</sup> on the concessionaire for delay in completion of the work. The GoO, however, did not invoke the clause and demand the penalty.

**3.2.8.2** As per the agreement, the concessionaire was required to take steps for effecting commercial operation of issue of SCBRC in all the RTO offices of the State by 11 December 2006, i.e. within 135 days from the date of agreement. If the commercial operation date was not achieved by the

<sup>48</sup> Rs. 20,000 per day X 933 days (11.1.2007 to 31.7.2009)= Rs. 1.87 crore.

scheduled commercial operation date for any reason other than *force majeure*, the concessionaire was liable to pay to the GoO, daily damages for delay in achievement of the commercial operation date at the rate of rupees one lakh per day until the commercial operation date was achieved.

The GoO vide its notification of September 2006, had also notified 11 December 2006 as the scheduled commercial operation date and authorised the concessionaire for and on behalf of the GoO to collect tax, vehicles registration fees, permit fees etc. along with the service charges from users as per specified rates and deposit the government revenue in the designated bank accounts opened (separately for each RTO) for this purpose.

The commercial operation date in respect of various RTOs varied from 23 November 2006 to 26 March 2007 and the delays ranged from 2 to 106 days beyond the scheduled commercial operation date and the GoO was therefore required to levy penalty amounting to Rs. 1.06 crore (at the rate of Rupees one lakh for 106 days). The GoO, however, did not take any action to impose penalty (February 2009). The reasons for not imposing penalty have not been furnished. However, the department had issued (March 2009) a show cause notice to the concessionaire in this regard.

The department admitted the failure of the concessionaire in non-completion of the different aspects of the project and stated (July 2009) that the clauses did not provide for payment of damages at the rate of Rs. 20,000 per day to the GoO until its completion but to pay damages of Rs. 1,00,000 per day for not achieving the commercial operation date. It further stated that the concessionaire was granted further extension of 60 days along with penalty of Rs. 1,00,000 to achieve the commercial operation date as per the agreement. The contention of the department is not acceptable since there were distinct sub clauses<sup>49</sup> in the agreement providing for damages at the rate of Rs. 20,000 per day for non completion of project specifications other than commercial operation date and for damages of Rs. 1,00,000 per day for not achieving the scheduled commercial operation date. Moreover, the extension granted to the concessionaire was not supported by any executive order from the Government.

### ***3.2.8.3 Short engagement of IT personnel***

In terms of the agreement, the Transport Department would engage IT personnel trained by the NIC who would be responsible for system administration at different RTOs and STA. The concessionaire would pay the monthly wages through the Transport Department.

The system is in operation in 30 stations including STA. As against the minimum requirement of 30 Assistant Programmers to look after the database and system administration, only 18 Assistant Programmers were engaged from July 2007 onwards and 12 RTOs were not provided with any programmers. As such these RTOs were deprived of the services of any programmer which could adversely impact the work of managing the database and system

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49 Sub clause 14.1.3 for Rs. 20,000 and Sub clause 14.1.4 for Rs. 1 lakh per day

administration and also resulted in undue benefit to the concessionaire amounting to Rs. 30 lakh (Rs. 10,000 per programmer per month from July 2007 to July 2009).

The department accepted the audit observation (July 2009).

### **3.2.9 Non-adherence to performance standard by the concessionaire and deficient citizen services**

#### ***Delay in issue of smart card based registration certificate/fitness certificate***

As per the agreement the concessionaire was to issue the smart card based registration certificates (RC) within one day of collection of tax and fee for non-transport vehicles and fitness certificate (FC)/RC within one day after fitness check for transport vehicles, failing which the GoO was required to impose late fine of 10 *per cent* of the service charges of Rs. 167.01 collected by the concessionaire from every user in lieu of the service provided.

Audit scrutiny of the databases of seven<sup>50</sup> RTOs revealed median delays ranging between 2 and 7 days and the GoO was required to impose late fine amounting to Rs. 29.31 lakh for the delay in issue of smart card based RC for non-transport vehicles and RC/FC for transport vehicles as summarised below which was not done.

Category	No. of vehicles	Median delay in issue of RC/FC ranging from	Penalty to be imposed (Rs.)
Transport	41,056	2 to 7 days	6,85,676
Non-transport	1,34,427	2 to 5 days	22,45,065
<b>Total</b>	<b>1,75,483</b>		<b>29,30,741</b>

The delay in delivery of services (issue of RC/FC) to the users and absence of monitoring on the part of the department to ensure timely delivery defeated the purpose of e-governance and resulted in deficient citizen services. Besides, no complaint register was maintained for lodging complaints by the users, although the department had requested the Accountant General to take up the IT audit on account of complaints from the RTOs regarding delay in issue of RC/FC by the concessionaire.

Further, in terms of the agreement, the concessionaire was to furnish a monthly report indicating the delay in issue of RCs/FCs and penalty leviable on account of this. However, neither did the concessionaire furnish this report nor did the department call for the same.

The department accepted the audit observations (July 2009).

<sup>50</sup> Angul, Bhubaneswar, Cuttack, Jharsuguda, Rayagada, Rourkela and Sundargarh.

### **3.2.10 Irregular collection of service charges by the concessionaire**

As per the conditions of the concession agreement, service charges for rendering paper RCs were Rs. 15 till the availability of smart card based RC. Further, it was decided that obtaining paper based RC was optional and payment of service charges for paper based RC was not compulsory. The GoO in Transport Department circulated a notification to this effect in May 2008.

Scrutiny of the database of seven<sup>51</sup> RTO offices revealed that the concessionaire was allowed to collect service charges for the paper based RC also from the users right at the initial stage i.e. at the time of receipt of tax/fee by the concessionaire even though smart cards were available, which was in violation of the terms of the agreement. Also, such charges could be collected only if the user opted for a paper based RC. However, in the absence of such provision to indicate the option in the application form, the charges for obtaining paper based document were also included in the total charges. RTOs continued to issue paper based documents without confirming the option of the applicant. From 26 March 2007, the date of commercial operation of the project, till the date of audit, 1,50,136 new registrations with smart cards were issued in the seven RTOs and service charges to the tune of Rs. 22.52 lakh (1,50,136 x Rs. 15) was irregularly collected by the concessionaire from the applicants.

The department admitted the fact and also stated that the situation still persisted (July 2009).

### **3.2.11 Non-utilisation of hand-held terminals**

The hand-held terminal is a device to be used by the enforcement wing of the transport department to check the genuineness of the smart card, tax payment, validity of permit, fitness and previous offence committed, if any, through the software installed in it. The concessionaire was to provide the hand-held terminals and install the NIC-designed software in them. Though the software has been approved by NIC (February 2009) it was not installed in the devices.

The purpose of having the hardware was therefore defeated as the enforcement squad was not in a position to check the vehicles effectively through smart card as envisaged. Thus, the smart card could not be utilised for any worthwhile purposes.

The department admitted the audit observation (July 2009).

### **3.2.12 Other issues of contract management**

- The concessionaire was required to obtain and maintain in force all insurances in respect of the GoO revenue and project assets in terms of the agreement and furnish the papers in support of the insurance to the Government. The department has no record for ensuring the validity of

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51 Angul, Bhubaneswar, Cuttack, Jharsuguda, Rayagada, Rourkela and Sundargarh.

insurance on the project assets and the GoO receipts, in the absence of which the GoO receipts and the project assets would not be secured.

- No fire safety measures such as fire extinguishers, fire alarms and smoke detection systems were found in any of the data processing/ server rooms, which was in violation of the agreement. Thus, there is a risk of hardware and data loss in the eventuality of occurrence of fire.

The department admitted the audit observation (July 2009).

### **3.2.13 Design deficiencies**

#### **3.2.13.1 Non-inclusion of entry tax field in the registration database resulting in short realisation of one time tax and non-realisation of ET**

The Orissa Entry Tax (ET) Rules and various circulars of the Transport Department provide that vehicles procured from other states would attract ET at the prevailing rate and one time tax<sup>52</sup> (OTT) should be calculated on the cost of the vehicles including ET leviable thereon. Audit scrutiny revealed that the system did not have the facility to enter the ET, as a result of which ET was not realised while OTT was short realised in respect of two wheelers, motorcars and motor cabs procured from other states. Payment of ET on vehicles was done through manual intervention for calculation of OTT in all the test checked RTOs except in RTO, Rourkela, where ET was not realised for the vehicles procured from outside the state resulting in short realisation of OTT. The department did not inform NIC for incorporation of the required field and its linkage with the cost of the vehicle for calculation of OTT at the time of development and customisation of 'Vahan', or subsequently.

Further analysis revealed that the dealer code was codified for 1,083 dealers out of which four dealers pertained to other states (Code No:- 4080, 99001, 4044 and 4062). Besides, in most of the cases of acquisition of vehicles from other states, dealer code '50' i.e. others was allotted without specifying details of dealer address and state. Since dealer code '50' contains details of both dealers not codified inside Orissa and dealers not codified in other states, the ET liability and OTT could not be calculated properly, as a result of which there was a possibility of evasion of ET and OTT.

This resulted in short realisation of tax of OTT- liable vehicles like motor cars/motor cabs acquired after 26 March 2007 in RTO, Rourkela for cases under dealer code '50' which pertained to dealers from other states. Test check of manual records confirmed short realisation of OTT due to non-inclusion of ET. Besides, ET was also not realised in respect of the above vehicles in RTO, Rourkela.

The department, admitting the audit observation, directed its field functionaries to ensure computation of OTT on ET leviable on the vehicles purchased from outside the state. A circular was also issued in this regard

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52 OTT -One time tax for the entire life of vehicles payable for registration of vehicles like two wheelers, motor cars and motor cabs etc.



(July 2009) with a copy to the concessionaire, NIC, Orissa unit and NIC Headquarters office, New Delhi.

### **Input, process and validation control deficiencies**

#### **3.2.13.2 Existence of duplicate entries**

Chassis numbers, engine numbers and registration numbers are unique identification marks of a vehicle which are essential for the purpose of its registration under the provisions of the MV Act.

Analysis of the database revealed duplicate entries in the database. Out of 5,01,967 vehicles registered in the eight test checked RTOs, 26 vehicles were registered with duplicate chassis numbers and 109 vehicles were registered with duplicate engine numbers and the duplication ranged from 2 to 3. The duplication in case of registration numbers was twice in case of five vehicles and in another case the same registration number appeared five times. In one instance the same vehicle was registered twice and allotted with two different registration numbers.

This indicated absence of validation checks in the system and also inadequate supervisory controls over the input to ensure accuracy of data. Such duplication of registration is not only illegal but also poses the risk of plying invalid/stolen vehicles making it possible to escape paying tax and legal complications to the bonafide owners in case of accidents, theft etc., besides generating wrong MIS data. The matter needs to be investigated in detail by the department.

The department while admitting the observation stated that NIC and the concessionaire had been informed to check this deficiency (July 2009). The reply of the department however did not address the issue of supervisory controls at their end.

#### **3.2.13.3 Registration of two or more vehicles under the same insurance cover note**

According to the MV Act, 1988, no person shall use a motor vehicle unless it is insured. Besides that, every motor vehicle is required to be insured before its registration.

Audit analysis revealed that there existed 16,609 records involving 3,596 cover note numbers where one cover note was used in registration of 2 to 524 vehicles. Further analysis and test check of records manually in RTO offices confirmed the use of the same cover note in registration of more than one vehicle as detailed in Annexure-A. The transport authorities also did not verify the validity of the insurance cover note submitted along with the application.

Thus, the absence of validation checks and input supervision in the system to prevent the use of duplicate cover notes resulted in fraudulent use of insurance cover notes and would give rise to legal complications.

The department while admitting the observation stated that NIC and the concessionaire had been informed to check this (July 2009).

#### **3.2.13.4 Data not entered in key fields**

As per the MV Act, 1988, tax is levied based on parameters like sale amount and unladen weight in respect of private motor cars, motorcycles etc., seating capacity in case of passenger vehicles like stage carriages and contract carriages and laden weight in the case of goods vehicles.

Data analysis of the registration database in respect of the test checked RTO offices revealed that certain key fields contained the value 'zero' in several records as detailed in Annexure-B. The audit findings are summarised below:

- Seating capacity was not entered in 4,883 cases out of which 109 were passenger vehicles.
- Sale amount was not entered in 1,96,245 cases.
- Cubic capacity was not entered in 14,822 cases.
- Unladen weight was not entered in 5,764 cases out of which 4,233 cases were private vehicles.
- Laden weight was not entered in 88,982 cases out of which 337 vehicles were goods carriages.
- Sale amount and seating capacity of non transport/ private vehicles were not entered in 2,385 cases.

Non-entry of data in the above key fields indicated deficiency in input controls and absence of supervision.

The department, while admitting the observation (July 2009), informed that NIC and the concessionaire had been asked to check these cases.

#### **3.2.13.5 Lack of data validation**

The MV Act and Rules provide certain basic parameters for certain class or categories of vehicles. For example, the fitness validity for private vehicles is 15 years from the date of grant of fitness, laden weight of goods carriage should not exceed 49,000 kg, seating capacity of two wheelers should not exceed three and registration numbers should start with the State Code OR instead of '0' R (zero R).

Test check in the selected regional transport offices revealed a large number of unusual and improbable/incorrect data in the databases that implies unreliability of data and inadequate supervision as detailed in Annexure-C.

Audit observed that:-

- Invalid/expired insurance cover notes were accepted at the time of receipt of tax and fee during registration of 33 vehicles (Annexure D).
- Validity of fitness exceeded 15 years from the date of registration of vehicle in case of 66 vehicles.

- Validity of insurance exceeded 15 years from the date of registration of vehicles in 27 cases.
- Date of expiry of insurance was the same as the date of commencement of insurance in seven cases.
- Date of validity of tax payment exceeded 15 years from the date of registration of vehicles in 18 cases.
- The seating capacity of light motor vehicle (LMV)-private car was indicated as 25 to 796 as against the maximum capacity of 12 in 38 cases.
- Laden Weight (RLW) of goods carriage exceeded 49,000 Kg in 84 cases.
- Two wheelers were shown as having seating capacity of more than three in 1,069 cases.
- Seating capacity of passenger vehicles like auto rickshaws which have maximum capacity of three was indicated as 125 to 417 in 14 cases.
- Cubic capacity of two wheelers was below 25 cc in 4,668 cases which is not available in the market.
- Registration numbers were starting with zero (0) R instead of OR in 67 cases.
- 1,382 vehicles were registered on Sundays.
- In one case fitness fee was shown as received on Sunday.
- Acceptance of fee/tax beyond office hours in 3,749 cases.

The department while admitting the audit observation instructed all field functionaries to be vigilant and ensure that the errors did not recur and requested NIC to put necessary validation checks (July 2009).

### ***3.2.13.6 Lack of continuity of Registration Numbers***

***3.2.13.6.1*** The MV Act provides that a registering authority shall assign a unique mark (Registration Number) in a series to every vehicle at the time of registration. Allotment of advance registration number for a vehicle is made on the request of a vehicle owner for a specific number chosen by him. In a single series, 9999 numbers can be allotted to vehicles, in a sequential manner, unless certain numbers are reserved or blocked at the request of the vehicle owner.

An analysis of the registration database showed a gap of 1,114 numbers as detailed in Annexure-E in respect of four<sup>53</sup> regional transport offices which indicated lack of continuity in allotting registration numbers resulting in improper management of registration of vehicles besides possibility of misuse of unallotted numbers.

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<sup>53</sup> Bhubaneswar, Cuttack, Jharsuguda and Rourkela.

This indicated that business rules were not built into the system to ensure that vehicle registration numbers were automatically generated.

The department stated (July 2009) that 'Vahan' software provided locking system to ensure continuity of registration numbers. The reply of the department is not tenable in view of existence of gaps between registration numbers.

**3.2.13.6.2** Further analysis revealed that there were long gaps (7 days to 207 days in 3,892 cases in case of RTO, Bhubaneswar) between the date of deposit of tax/fee and allotment of registration numbers in respect of registrations done after 26 March 2007. Since the allotment/assignment of numbers was made manually by RTOs, the gap between deposit date and registration date indicated the possibility of choice numbers being allotted without payment of proper fee. This was also in violation of the terms of the agreement that the concessionaire should generate the vehicle registration number from the system.

The department stated (July 2009) that the above audit observation would be taken care of automatically once registration numbers were automatically generated. It is reiterated that automatic generation of registration numbers may be resorted to early.

**3.2.13.7 Irregular allotment and acceptance of reservation numbers**

As per STA notification of August 2002, the allotment of numbers beyond 1,000 from the last number assigned in the series and within 10,000 from the last number assigned in the series would be made on payment of Rs. 2,000 and Rs. 4,000 for two wheelers and other than two wheelers respectively.

Analysis of the main database in RTO, Sundargarh revealed that though the number prevailing on 19 August 2008 was OR16C-2820, numbers like OR16B-6060, OR16H-0632 and OR16J-0632 were allotted as reservation numbers on the same day. Thus, on a particular date, numbers from 16B, 16C, 16H and 16J series were allotted which shows that the system did not have in-built controls to restrict allotment of numbers beyond 10,000 of the current series.

The department, admitting the observation, instructed the RTOs not to repeat such mistakes (July 2009).

**3.2.13.8 Non transport vehicles with lapsed registration**

The MV Act, 1988 provides that a certificate of registration in respect of a motor vehicle, other than a transport vehicle, shall be valid for a period of 15 years from the date of issue of such certificate and shall be renewable. Obtaining a certificate of fitness from the competent authority is a pre-requisite for renewal of registration of non transport vehicle. Non-renewal of certificate of registration amounts to using the vehicle without registration and attracts minimum fine for driving without registration at Rs. 2,000 for the first offence and Rs. 5,000 for each subsequent offence. Besides, fee for renewal of

registration, fee for conducting test for fitness and fee for grant of renewal of fitness at appropriate rates is also realisable.

Analysis of the database as of 31 October 2008 in four<sup>54</sup> RTO offices revealed that the registration of 9,326 non-transport vehicles like two wheelers and private cars had expired, the details of which are given in Annexure-F. No details of re-registration of such vehicles were available in the system. These vehicles were plying without valid registration. Further, re-registration of these vehicles would have resulted in realisation of re-registration fee, testing fee and fitness fee to the tune of Rs. 24.73 lakh from the vehicle owners in respect of the above vehicles. Besides, a minimum penalty of Rs. 1.87 crore (9,326 x Rs. 2,000) would have been levied.

The department stated (July 2009) that it was not correct to conclude non-realisation of revenue on the basis of data available in general register of registration (GRR) since large number of vehicles would have been damaged beyond economical repair. While appreciating the view of the department, it is stated that they should make optimum use of the software in detecting vehicles with lapsed registration and place demand against the registered owner which would also facilitate the cancellation of registration in respect of vehicles damaged beyond repair as per Orissa Motor Vehicles Rules.

### ***3.2.13.9 Transport vehicles without fitness certificate***

The MV Act, 1988 provides that a transport vehicle shall not be deemed to be validly registered unless it carries a certificate of fitness issued by the competent authority. It also attracts a minimum fine of Rs. 2,000 for the first offence and Rs. 5,000 for each subsequent offence for driving a vehicle without registration and fitness certificate.

Scrutiny of the database revealed that as of 31 October 2008, certificates of fitness of 8,093 transport vehicles of different categories had expired in the eight RTO offices test checked. The vehicles had not renewed their certificate of fitness as on 31 October 2008. This led to many unfit vehicles plying on the road which can have associated impacts on environment and road safety. Further, this also resulted in non realisation of fitness fee at the rate applicable for the above categories of vehicles (Three wheelers, LMV, MGV, HGV). The enforcement staff of the department also failed to utilise the information available in the 'Vahan' database resulting in non realisation of minimum fine of Rs. 1.62 crore. Besides, fitness fee of Rs. 31.04 lakh was also not realised.

The department stated (July 2009) that it was not correct to conclude non-realisation of revenue on the basis of data available in the GRR since many of the transport vehicles have become permanently incapable of plying. While appreciating the view of the department, it is stated that they should make optimum use of the software in detecting vehicles with lapsed fitness and issue notice or raise demand against the registered owner in augmenting the revenue which could facilitate the renewal of fitness certificates as per the Orissa Motor Vehicle Rules.

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54 Bhubaneswar, Cuttack, Rayagada and Sundargarh.

### **3.2.14 Partial utilisation of the system**

The 'Vahan' software was designed to automate the management of complete information related to vehicle registration.

Though the system presently captures information relating to vehicle registration, owner and vehicle details and collection of tax/fee and fitness, the following modules were yet to be made operational.

- Permits including inter state movement
- Enforcement/Vehicle Check Report
- Temporary registration
- Demand, collection and balance statements.

This has resulted in the department failing to fully utilise the system as a Management Information System tool.

The department while admitting the audit observation stated (July 2009) that the permit module is under customisation. The reply was, however, silent regarding the other modules.

### **3.2.15 System Security**

#### ***Physical and logical access controls***

The system including the server, network and switchers etc., were freely accessible making it vulnerable to physical threats by unauthorised persons. The system has no restriction for repeated log in attempts by any unauthorised user by entering wrong user ID and password.

No password policy has been framed and enforced restricting only authorised users to have access to the system. No awareness has been created among the users regarding periodical change of password.

### **3.2.16 Absence of Business Continuity Planning**

Business continuity planning is necessary for recovery of business processes, with minimum loss to business and minimal downtime, in the event of a disaster. Considering the criticality of the system, the department was required to formulate, document and test disaster recovery plans and ensure that staff were made aware of their responsibilities to ensure business continuity.

The department did not formulate a business continuity and disaster recovery plan. A policy for taking backup of critical data at regular intervals and storing it at remote locations to ensure continuity of operations in case of a disaster was not framed.

The department stated that there were different levels of backup procedure. The department's reply was silent regarding remote storage, instant recovery and periodical testing of backup data for retrieval (July 2009).

### **3.2.17 Lack of long term strategy**

The Transport Department has not formulated and documented a formal strategy for eventual acquisition, maintenance and utilisation of the information system for proper governance and is completely dependent on the concessionaire for all its activities. No departmental officer is being trained simultaneously on operation of the system.

In the event of the concessionaire abruptly abandoning the work, the department will not be in a position to handle the work independently, leading to possible disruption of work in the transport offices.

### **3.2.18 Conclusion**

The objective of outsourcing the functions of the Transport Department under e-Governance and issuance of smart card based RC was aimed at imparting better, efficient and timely service to the users and plugging revenue leakage. This however, remained unachieved in view of delay in issuance of RC. Completeness, accuracy and integrity of data entered and processed were not ensured due to deficient application controls coupled with supervisory controls. Several components of the modules were not in operation and software deficiencies were found which necessitated manual intervention for rectification, thereby rendering the system unreliable. Creation of a central database and uploading of paper based records to the database could not be completed even after two years of the commercial operation of the system. Thus, the objectives of implementing 'Vahan' for better citizen services, improving working of RTOs and enforcement agencies, an efficient and transparent revenue collection, etc., could not be achieved fully.

### **3.2.19 Recommendations**

The Government may consider the following:

- Frame the security and backup policies and define the business continuity plan.
- Identify gaps in the process mapping and incorporate them in the application.
- Strengthen the input and validation control features to ensure that incorrect and incomplete data is not fed into the system.
- Ensure adequate physical and logical access control so that the safety and security of data is not compromised.
- Ensure proper supervisory check/control over the system.
- Train departmental officials in system management and database operation.
- Ensure prompt and efficient delivery of services to the users by the concessionaire.

**Annexure-A**  
**Manual checking of duplicate insurance cover notes**  
**(Reference para No. 3.2.13.3)**

Sl. No	Insurance Cover note number	Insurance company name	Insurance cover note used in registration of vehicle -1		Same cover note used in registration of vehicle-2		Remarks
<b>Angul</b>							
1.	208575	Oriental Insurance	OR19F7956	M.R. Sahu Rs.3688	OR16F8141	S.K. Jadav Rs.11905	
<b>Cuttack</b>							
2.	231542	Oriental Insurance	OR05AD3729	Illarani Ghosh Rs.960	OR05AD3679	Jagabandhu Panda Rs.960	
3.	219921	Oriental Insurance	OR05AD3678	Dushmant Ku. Sahoo Rs.1774	OR05AD3709	Trilochan Patri Rs.774	
<b>Rourkela</b>							
4.	CW0610036059	Bajaj Allianz	OR14 S 1173	Md.Sahajahan Seikh Rs.4123	OR14 S 1172	B.K. Pandy Rs.4213	
5.	200700952416	Reliance	OR14 S 1486	Vedvyas Minerals Rs.877	OR14 S 1484	Vedvyas Minerals Rs.877	
6.	200700508420	Reliance	OR14 S 1597	Abhimanyu Das Rs.3230	OR14 S 1595	Sanjay Oram Rs.4232	
<b>RTO,Sundergarh</b>							
7.	55015260	ICICI Lombard	OR16C-3118	M.K.Patel Premium-Rs.27501	OR16 C 3117	K.K.Patel Premium-Rs.27501	
8.	201839808790	ICICI Lombard	OR16 C 2510	R.K. Sahoo Rs.20600	OR16 C 2509	S.C. Saraph Rs.20600	It is a misc. vehicle package quotation instead of a cover note.
9.	201067589279	ICICI Lombard	OR16 C 1927	S.K.Choudhury Rs.20600	OR16 C 1928	S.K.Choudhury Rs.20600	It is a goods. vehicle package quotation instead of a cover note.
10.	200702907775	Reliance	OR16C 2497	Radheshyam Jena Rs.877	OR16C 3015	Nirati Patel Rs.877	



**Annexure-B**  
**Data not entered in key fields**  
**(Reference para No. 3.2.13.4)**

Sl. No	Name of the data field	Name of Regional Transport Offices								
		Angul	Bhubaneswar	Cuttack	Jharsuguda	Nabarangpur	Rayagada	Rourkela	Sundargarh	Total
1.	Unladen Weight	3,202	225	379	496	240	185	119	918	5,764
2.	Laden Weight	549	32,423	24,172	3,700	9,568	3,455	13,908	1,207	88,982
3.	Seating Capacity	1,118	3,058	11	19	30	62	44	541	4,883
4.	Sale amount	57,393	41,769	17,318	11,016	11,457	11,418	12,279	33,595	196,245
5.	Cubic capacity	11,612	802	797	154	748	257	102	350	14,822
6.	Goods carriages where RLW=0	151	09	03	08	45	36	02	83	337
7.	Non transport/private vehicles where Seat cap and Sale amt =0	988	1,220	2	06	09	25	04	131	2,385
8.	Private vehicles where ULW =0	2,832	163	76	444	56	90	14	558	4,233
9.	Passenger vehicles with seat capacity=0	45	32	00	01	02	03	00	26	109
		77,890	79,701	42,758	15,844	22,155	15,531	26,472	37,409	317,760

**Annexure-C**  
**Lack of data validation**  
**(Reference para No. 3.2.13.5)**

Sl. No	Data in data field	Name of Regional Transport Offices								Total
		Angul	Bhubaneswar	Cuttack	Jharsuguda	Nabarangpur	Rayagada	Rourkela	Sundargarh	
1.	Zero (0) R instead of OR in State code field of registration number	-	-	63	04	-	-	-	-	67
2.	RLW of goods carriage exceeding 49,000 kgs	12	04	01	00	00	01	20	46	84
3.	Two wheeler with seating capacity exceeding three	167	330	167	37	54	28	57	229	1069
4.	Car (private) with seating capacity more than 12	01	21	10	0	01	0	03	02	38
5.	Cubic capacity within 01 to 25 cc	418	397	340	48	44	134	75	3,212	4,668
6.	Fitness valid to date beyond 2024 in case of private vehicle	31	26	09	-	-	-	-	-	66
7.	Insurance to date beyond 2024	02	11	07	0	0	0	03	04	27
8.	Tax up to date beyond 2024			03	04	0	0	04	07	18
9.	Insurance from date equal to and more than Insurance date		07	-						7
10.	Registration date on Sunday	164	189	623	22	18	36	0	330	1382

Sl. No	Data in data field	Name of Regional Transport Offices								Total
		Angul	Bhubaneswar	Cuttack	Jharsuguda	Nabarangpur	Rayagada	Rourkela	Sundargarh	
11.	Fitness fee date on Sunday			01						1
12.	Acceptance of receipt beyond office hour	421	1,411	1,077	132	15	134	195	364	3,749
13.	Seat capacity of passenger vehicles exceeding 100(say)		14							14

**Annexure-D**  
**Registration of vehicles with invalid Insurance**  
**(Reference para No. 3.2.13.5)**

**Region –Bhubaneswar (Vahan 02)**

Sl. No	Registration No	Purchase date	Receipt Date	Registration Date	Insurance from date	Insurance to date
1.	OR02AP0475	22/03/2006	14/06/2007	16/06/2007	22/03/2006	21/03/2007
2.	OR02AP5060	19/05/2006	25/07/2007	28/07/2007	19/05/2006	18/05/2007
3.	OR02AP6756	24/07/2006	14/08/2007	16/08/2007	24/07/2006	23/07/2007
4.	OR02AP6953	21/01/2005	17/08/2007	18/08/2007	21/01/2005	20/01/2006
5.	OR02AQ1448	17/08/2006	06/10/2007	08/10/2007	17/08/2006	16/08/2007
6.	OR02AQ8444	15/07/2006	14/11/2007	19/11/2007	15/07/2006	14/07/2007
7.	OR02AR2913	31/12/2007	01/01/2008	02/01/2008	31/12/2007	31/12/2007
8.	OR02AR5193	12/01/2008	18/01/2008	24/01/2008	12/01/2008	13/01/2008
9.	OR02AR6051	01/09/2007	21/01/2008	30/01/2008	01/09/2007	31/12/2007
10.	OR02AR7425	06/02/2008	12/02/2008	14/02/2008	06/02/2008	06/02/2008
11.	OR02AR7935	20/10/2006	18/02/2009	19/02/2008	20/10/2006	19/10/2007
12.	OR02AS1559	28/09/2006	15/03/2008	25/03/2008	28/09/2006	27/09/2007
13.	OR02AS1909	20/02/2007	17/03/2008	28/03/2008	20/02/2007	19/02/2008
14.	OR02AS5030	11/04/2008	15/04/2008	21/04/2008	11/04/2008	11/04/2008
15.	OR02AS5159	29/06/2006	11/04/2008	22/04/2008	29/06/2006	28/06/2007
16.	OR02AT0046	30/11/2004	23/05/2008	30/05/2008	30/11/2004	29/11/2005

**Region –Rourkela (Vahan 14)**

Sl. No	Registration No	Purchase date	Receipt Date	Registration Date	Insurance from date	Insurance to date
1.	OR14P7435	27/01/2006	13/06/2007	13/06/2007	27/01/2006	26/01/2007
2.	OR14Q3077	31/01/2006	02/11/2007	14/11/2007	27/02/2006	26/02/2007
3.	OR14Q5730	27/12/2007	04/01/2008	05/01/2008	27/12/2007	01/01/2008
4.	OR14Q6872	25/01/2008	28/01/2008	28/01/2008	25/01/2008	27/01/2008
5.	OR14Q9129	26/12/2007	17/03/2008	17/03/2008	26/12/2007	25/01/2008
6.	OR14R0070	23/03/2007	08/04/2008	08/04/2008	26/03/2007	25/03/2008
7.	OR14R0483	03/04/2008	16/04/2008	16/04/2008	03/04/2008	08/04/2008
8.	OR14R0825	21/12/2007	22/04/2008	23/04/2008	21/12/2007	21/03/2008
9.	OR14R5445	12/06/2008	28/07/2008	29/07/2008	12/06/2008	20/06/2008
10.	OR14R5590	30/07/2008	02/08/2008	02/08/2008	30/07/2008	31/07/2008
11.	OR14R5591	30/07/2008	02/08/2008	02/08/2008	30/07/2008	01/08/2008
12.	OR14R7853	06/10/2007	21/08/2008	30/09/2008	06/10/2007	26/09/2008

**Region –Cuttack (Vahan 05)**

Sl. No	Registration No.	Purchase date	Receipt Date	Registration Date	Insurance from date	Insurance to date
1.	OR 05 AB 4861	23/07/2006	28/12/2007	01/01/2008	23/07/2006	22/07/2007
2.	OR 05 AB 9345	09/03/2007	11/03/2008	14/03/2008	09/03/2007	08/03/2008
3.	OR 05 AC 4565	12/07/2006	24/05/2008	27/05/2008	12/07/2006	11/07/2007
4.	OR 05 AC 5728	22/12/2006	03/06/2008	09/06/2008	22/12/2006	21/12/2007
5.	OR 05 AC 6237	21/04/2006	11/06/2008	30/06/2008	21/04/2006	20/04/2007

**Annexure-E**  
**Lack of continuity of registration numbers**  
**(Reference para No. 3.2.13.6.1)**

**Region-Bhubaneswar**

Sl No	Series	Gaps
1.	OR02AR	34
2.	OR02AS	34
3.	OR02AT	27

**Region-Cuttack**

Sl No	Series	Gaps
1.	OR05AB	291
2.	OR05AC	193

**Region-Jharsuguda**

Sl No	Series	Gaps
1.	OR23B	112

**Region-Rourkela**

Sl No	Series	Gaps
1.	OR14Q	229
2.	OR14R	194

**Annexure-F**  
**Non transport vehicles with lapsed registration**  
**(Reference para No. 3.2.13.8)**

Sl. No	Particulars	Bhubaneswar	Cuttack	Rayagada	Sundargarh	Total
1.	No. of vehicles remaining in database (two wheeler and LMV (private) with expired fitness /registration	137	213	104	8,872	9,326
2.	<b>Two wheelers</b>	84	95	91	8,853	9,123
	(i) Non-realisation of fee for registration @ Rs. 60					
	(ii) Non-realisation of fee for conducting fitness @ Rs.100					
	(iii) Non-realisation of fee for grant of renewal of fitness @ Rs.100					
3.	<b>LMV (Car-private)</b>	53	118	13	19	203
	(i) Non-realisation of fee for registration @ Rs.200					
	(ii) Non-realisation of fee for conducting fitness @ Rs.200					
	(iii) Non-realisation of fee for grant of renewal of fitness @ Rs.100					
	<b>Total fee unrealised</b>	<b>48,340</b>	<b>83,700</b>	<b>30,160</b>	<b>23,11,280</b>	<b>24,73,480</b>