

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

III. NAME OF CATEGORY- 'INNOVATIVE USE OF TECHNOLOGY IN e-GOVERNANCE'

1. **Coverage – Geographical and Demographic :-**

(i) Comprehensiveness of reach of delivery centres,

Target population of project were entire registered dealers of Chhattisgarh state and their offices located outside state also

(ii) Number of delivery centres

Web based solution was provided so 100% dealers had the access

(iii) Geographical

(a) National level – Number of State covered

All states

(b) State/UT level- Number of District covered

All districts

(c) District level- Number of Blocks covered

All blocks

Please give specific details:-

It is available to all registered dealers

(iv) Demographic spread (percentage of population covered)

2% population of state (as dealers were target users) but 100% coverage of dealer population

2. **Situation Before the Initiative (Bottlenecks, Challenges, constraints etc with specific details as to what triggered the Organization to conceptualize this project #):**

Before the launch of this project dealers had to maintain their records manually and had to visit their respective circle office for every requirement like registration return filing, statutory form issuance depositing of bank challans etc. On other hand workforce at department was reducing day by day leading to probability of tax fraud and also complaint of corruption were on rise with implementation of VAT regime the paperwork was on rise. They was no system in place to check the dealers so a need was felt to develop a user friendly computerized system both for dealers and department officials and also a thought process was initiated to have a business analytic software which is able to forecast revenue collection based on past trend. Main challenge before department was the lack of skill set to

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implement the technical solution.

3. Scope of Services/ Activities Covered (Relevance of choice of application for client/ agency, Extent of e-enablement in terms of number of services, Extent to which step in each service have been ICT- enabled #)

CMC started the computerization in 2005 but it was limited to back office computerization the dealer end was still manual so in 2010 NIC was entrusted the task of conceptualizing and developing a e-portal for dealers and also developing business intelligence software to detect tax fraud for use of department. A Business Analytic Solution from SAS was also implemented in 2013.

The following Services have been e-enabled for dealers

- 1) Registration of dealers for VAT, CST, Composition (e-application including submission of all relevant documents , generating of Registration Certificate, Tracking the status of application)
- 2) All return forms (e-submission of forms with facility to upload annexures in xml format and facility of auto validation)
- 3) All statutory forms (e-application, tracking status of application, printing of certificate)
- 4) Tax Clearance Certificate
- 5) E-refund facility for dealers

4. Strategy Adopted

(i) The details of base line study done,

The system study was conducted by inviting stakeholders to have a brief about their expectation from the proposed system then a presentation was held defining major functionality of proposed system and amendments carried out as per the convenience of user and IIM Ahmedabad was engaged to provide department with a roadmap for proposed system they also had discussion at length with stakeholders and submitted a report, The technical architecture was decided as per advice of NIC.

(ii) Problems identified,

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Majority of dealers felt that manual process was causing cost over runs complication in managing data and have to be at mercy of department officials without any transparency also they felt that issuance of new registration, statutory forms was inviting corrupt practices a need for online payment of taxes was also felt so that dealer could pay tax at his convenience. Department officials were also fed up of manually crosschecking the data and collating the revenue receipt manually, they felt that tracking of dubious dealers was not easy and while issuing statutory forms there was risk of it being misused causing losses to state exchequer .

(iii) Roll out/implementation model,

Prototype model was adopted to develop system

(iv) Communication and dissemination strategy and approach used.):

Seminars were held at division level inviting all stakeholders wherein live demonstration of e-modules were given and necessary technical inputs provided to all stakeholders hands on training was imparted to stakeholders

5. Technology Platform used-

(i) Description,

Operating system

Solaris 10 for database on SUN M4000 server

Application Server

Weblogic (10g) on Solaris 10 OS, Tomcat 7.0 on Win Server 2003

Database Server

Oracle (11.2.0.3) RAC the database is clustered across 2 nodes ,with redundancy and mirroring along with tuning and diagnostic

Current application is developed on Java (J2ee) environment on Tomcat 7.0 with struts 2.0 framework

(ii) Interoperability

Currently there is layering between OS application and database server The applications are distributed among various platform but compatible with OS

(iii) Security concerns

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Application server and Database server has been put behind firewall and IPS/IDS device. At other end specific ports were opened between Database and Application server. Un-authorized and unintended traffic such as SQL injection has been removed at code level the code has been audited thoroughly by NIC Security division hence no incidence of hacking has occurred.

(iv) Any issue with the technology used

NIL

(v) Service level Agreements(SLAs) (Give details about presence of SLA, whether documented, whether referred etc. #)

The e-service has been developed by NIC and NIC being Government agency no SLA required. There is an SLA for Business Analytic tool with SAS and for database licences with Oracle

6. **Demonstrate innovative use of ICT for development** (Give details about use of new and emerging technology, innovative usage of ICT for process change to improve quality of the life/ organizational effectiveness, relevance of technology to provide the service #)

- 1) RAC (Real application clustering) technique has been used minimizing downtime.
- 2) Weblogic application server is being used
- 3) Dealers have faster access to system and are being notified about their transactional status by SMS and email
- 4) All certificates and statutory forms are downloadable at dealer end.
- 5) SAS business analytic tool provides department timely alerts via dashboards pertaining to fall in revenue commodity wise, sector wise
- 6) SAS business analytic tool also points to growth/fall in net effective tax rate by bubble plot. It also points out dealer involved in circular trading.
- 7) SAS business analytics have minimized the programming efforts and displays the result in graphical as well as tabular format which is

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very easy to comprehend.

7. **Citizen Centricity** (Give specific details on the following#)

(i) Impact on effort, time and cost incurred by user,

User has freedom to use the system from anywhere anytime without incurring any additional cost and end result is delivered electronically which has been established in perception study conducted by Ernst & Young in 2013 the study is appreciative of e-gov efforts of department

(ii) Feedback/grievance redressal mechanism,

Support cell has been formed with telephone numbers of concerned employees displayed on website also email address have been created for each module and complaint redressal is achieved.

(iii) Audit Trails,

Regular performance audit have been conducted by IIM Ahmedabad & Ernst & Young. The security audit has been conducted by NIC Delhi

(iv) Interactive platform for service delivery,

Online GUI has been provided to user for submitting his request a one time online registration is mandatory for user before he starts using the service.

(v) Stakeholder consultation

A committee has been formed at HQ level in which members from chamber of commerce, Industrialists, Tax Consultants and department officials are members and every three months a meeting is held for getting stakeholder feedback for taking corrective corrections.

8. **Adaptability and Scalability** (Give details about Local language support, ability to leverage shared Government infrastructure, Standardization of technology used (hardware, software, application etc. #)

National Informatics Centre infrastructure was used to host the application. Application developed was designed to run on low speed network and was application server independent so that it can run on Tomcat, Weblogic and Oracle 9i AS

9. **Adaptability Analysis**

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(i) Measures to ensure adaptability and scalability

The application is on Tomcat 7.0 with Win server 2003 the backend is Oracle 11g(11.2.0.3) the new application is being developed on Weblogic 10g with Solaris 10 as Operating system as soon as this is done then both application server and database server would be on same OS Solaris 10

(ii) Measures to ensure replicability

Database is on RAC which provides redundancy and is being also mirrored at NIC Delhi (DR Site) application would also be replicated so that in case of hardware failure the application does not goes down

(iii) Restrictions, if any, in replication and or scalability

None

(iv) Risk Analysis

It has been done involving NIC Cyber security division

10. **New Models of Service Delivery** (Give details about type of partnership model use, Links to/Supported by Public/Private Organization Links provided to relevant websites etc. #)

Supported by NIC a Government organization and at the backend SAS manages the Business tool.

11. **Efficiency Enhancement** (Give specific details about the following #)

(i) Volume of transactions processed

Total 40,620 new dealers have registered through e-registration

Total 3,55,073 returns have been filed online

Total 5,45,784 statutory forms have been issued online

Total 18000 Tax clearance certificate issued online

Total 7000 E-refunds have been issued

(ii) Coping with transaction volume growth

The Database Server has been put on high end Sun M4000 series servers the database at backend is clustered in 2 nodes with mirroring to increase scalability we have installed PILLAR Axiom SAN of 13 TB .

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(iii) Time taken to process transactions,

Depends on user but filing of online return with all annexures takes approx. 15 min time, application for issuance of statutory form takes 10 min to complete the application the processing time after submission is less than a minute In Issuance of Statutory forms a unique feature of auto approval has been introduced wherein a dealer fulfilling certain criterion gets his form approved instantaneously without any human intervention. Also timelines have been decided for each transaction if department officials do not adhere to same the application of dealer gets auto approved

(iv) Accuracy of output,

100%

(v) Number of delays in service delivery

No delay

12. User convenience (Give specific details about the followings #)

(i) Service delivery channels (Web, email, SMS etc.)

All users are intimated about progress in their transaction via SMS and email. Approval/rejection of registration application, returns, issuance of statutory forms are being conveyed in real time through SMS and email

(ii) Completeness of information provided to the users,

The information provided to user is complete in all respect

(iii) Accessibility (Time Window),

Accessibility to user is unrestricted and can access any application 24 x 7

(iv) Distance required to travel to Access Points

NIL as user can operate from his residence or workplace

(v) Facility for online/offline download and online submission of forms,

The system has facility for excel sheet download for filing annexures in returns and also for filing transaction details while applying for issuance of statutory forms user can download fill and then upload by converting the excel sheet into xml format while uploading validations are in place so that erroneous data could not be fed user can download all approved statutory forms he can also download filled up

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application form for new registration and also can download his Registration certificate and Tax clearance certificate

(vi) status tracking

User can track status of his transaction online

13. **Sustainability** (Give details about sustainability w.r.t. technology (technology used, user privacy, security of information shared – Digital Encryption etc. #), Organization (hiring trained staff, training etc. #), financial (Scope for revenue generation etc. #))

1) Latest Sun M series Servers were used for database with RAC
2) Latest Sun T-Series servers are used for application
3) SAN from Pillar Axiom is being used for storage of data
4) Application developed in Java and database used is Oracle 11g
5) Checkpoint firewall is used to avoid intrusion
6) Staff is being regularly trained department has 4 regular Asstt Programmers on its payroll in addition 10 senior software developers are employed on contract in addition a Database administrator is also posted
7) For implementing the Business Analytic tool from SAS, PWC is the strategic partner and is involved in regular training of staff
8) Being a Government department all user services are free of cost
9) **Use of business intelligence tools have resulted into detection of Tax frauds . Department has got additional 100 crore revenue generated with help of BI tool the effort of state has been duly appreciated by Economic Intelligence Bureau New Delhi .**
(Appreciation Letter Attached)

14. Result Achieved/ Value Delivered to the beneficiary of the project-(share the results, matrices, key learning's, feedback and stakeholders statements that show a positive difference is being made etc):

(i) **To organization**

1) Entire physical system right from registration process, return filing, issuance of statutory forms, issuance of Tax

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Clearance Certificate, payment of tax has been made paperless

- 2) Fully transparent and secure system has been put into place wherein superior authorities have better monitoring tools at their disposal
- 3) Senior officials have been provided dashboards wherein they can monitor the pendency at all levels and take corrective actions.
- 4) Department has developed certain sets of Risk parameters and every dealer filing his Form-18 was churned into risk parameters and only dealers falling into net of risk parameters were accessed while 95% dealers were self accessed it reduced burden of assessment
- 5) Monitoring of revenue collection under various acts have become effective after introduction of e-payment gateway
- 6) The modules are user friendly so officials do not have to be computer savvy to operate the same
- 7) The departmental user feedback has been encouraging which has been mentioned by Ernst and young in their perception survey report
- 8) Department officials can focus on preventing leakage of revenue and officials need not raid the business place of a dealer to check evasion they come to know about probable evasion from the BI tool only.
- 9) Use of business intelligence tools have resulted into detection of Tax frauds . Department has got additional 100 crore revenue generated with help of BI tool the effort of state has been duly appreciated by Economic Intelligence Bureau New Delhi . (Appreciation Letter Attached)

(ii) To citizen

- 1) The online system has cut down on cost and has

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provided the dealer convenience of 24x7 facility

- 2) Dealers are in total control of their transaction as they perform it from secure login process
- 3) No site visit is being done by department officials before granting of new registration neither dealer is being called into office for recording of statement before grant of new registration which has eased the lives of dealer
- 4) Timelines are fixed for each transaction on crossing the timeline the application gets approved automatically
- 5) The issuance of statutory forms have been made easy by auto approve facility wherein if a dealer fulfills certain criterion his statutory form gets generated instantaneously without any human intervention
- 6) Dealers were relieved of Annual assessment by introducing risk parameters wherein assessment of only those dealers was undertaken who fell into risk parameters.
- 7) Duplicate Tax payment Receipt fraud has ended by introducing e-payment gateway
- 8) Dealers have not to face undue demands of officials
- 9) Corruption has been marginalized
- 10) The validations in return filing has helped dealer in filing correct returns
- 11) E-refund facility has eased the life of dealer as he is not required to run behind officials for getting back excess tax paid
- 12) More than 80% of dealers have expressed satisfaction over the e-services in perception survey conducted by Ernst & Young

(iii) **Other stakeholders**

- 1) Tax practitioners are also satisfied with introduction of e-services

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- 2) Tax practitioners now can manage various clients at a time
- 3) After launch of self- assessment scheme Tax practitioners have relieved of getting their clients case assessed
- 4) Tax practitioners have expressed their satisfaction in perception survey undertaken by Ernst & Young

15. Extent to which the Objective of the Project is fulfilled-(benefit to the target audience i.e.G2G, G2C, G2B, G2E or any other, size and category of population/stakeholder benefited etc.):

It is a G2C initiative and has been successful in increasing transparency and providing corruption free service to stakeholders it has also resulted into additional revenue generation without any additional cost involved.

16. Comparative Analysis of earlier Vs new system with respect to the BPR, Change Management, Outcome/benefit, change in legal system, rules and regulations

- 1) Earlier system was physical and fully dependent on manpower. The new system is fully online and has reduced human intervention to a minimum
- 2) Early system was fraught with risk of corruption
- 3) Earlier system was fault prone while current system is devoid of chance of fault
- 4) There were chances of revenue leakages by way of duplicate challans which has been eliminated by introducing e-payment system

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- 5) In earlier system misuse of statutory forms was a common phenomenon which has been totally stopped after introducing new system
- 6) In earlier system tax proportionate to transaction was never paid and was very difficult to detect but with introduction of validated e-return system same has been eradicated
- 7) In earlier system knowing about commodity/sectorwise revenue was a herculean task it has become easier now
- 8) With introduction of BI (Business Intelligence) tool it has become lot more easier to monitor commodity wise/Sector wise revenue
- 9) With introduction of BI tool it has become simple to detect suspicious dealer involved in bogus transactions without even raiding the premises of the dealer
- 10) Various amendments in ACT and rules have been made to legalise the e-service transaction
- 11) Various amendments in ACT and rules have been made to legalise the time frame for various services
- 12) Officials have become more responsive as their performance is being monitored by Senior officials with help of dashboards

17. Other distinctive features/ accomplishments of the project:

1. Dealers have a saving in cost and time
2. Growth in revenue of state government without any raid/seizure

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using BI tool

3. 1st state to devise Risk parameters for selection of case for assessment without any human intervention
4. 1st state to provide facility of auto approved statutory forms to dealers
5. 1st Commercial Tax department to use Business Intelligence tool
6. Credibility of department increased in eyes of dealers

This is just an indicative list of indicators. Applicant can add on more information based on suitability of the project nominated.