

Summary of e-Governance Evaluations*

This section summarizes the evaluation studies of five e-governance projects conducted by CEG-IIMA under a research grant of the Asia Foundation, USA. The projects selected for evaluation represent a broad spectrum of G-C e-Governance applications in India. These projects are given in the table below:

Project	Type	Domain
1. Civic Centers of Ahmedabad Municipal Corporation, Gujarat (CCAMC)	G-C Urban	Municipal Corporation
2. Fully Automated Services of Transport – Andhra Pradesh (FAST)	G-C Urban	State Government
3. Regional Passport Office at Ahmedabad (RPO)	G-C Urban	Central Government
4. Mahitishakti – Godhra District, Gujarat (MSK)	G-C Rural	District Administration
5. Road Transport Office at Ahmedabad, Gujarat (RTO)	G-C Urban	State Government

From the detailed project reports it can be seen that not all projects have exhibited same degree of success and sustenance. In this section we analyze the projects on the following factors which we consider are responsible for the successful implementation and their sustenance of e-Governance projects:

1. Degree of efficiency and transparency demonstrated in citizen services
2. Extent of reduction of cost and improvement of convenience for citizens
3. Extent of reengineering and improvement of back-end services
4. Extent of Integration of backend processes with front-end and web site
5. Degree of employee involvement and change management
6. Amenability for Public Private Partnership (PPP) arrangement
7. Strength of PPP arrangement in the application development
8. Strength of PPP arrangement in the service delivery
9. Enhancement of Revenue
10. Technological robustness of the project

1. Degree of efficiency and transparency demonstrated in citizen services

This factor is important for any e-Governance project to build a citizen-centric image of the government. Our evaluation studies indicate that all five projects, transparency and

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efficiency are the stated objectives. However, in their implementation CCAMC achieved this to a high degree through:

- Better training of staff on service orientation in the changed context
- Efficient creation of data, processing of transactions and updating of databases
- Web-enabling several data sets and services that help citizens
- Making the computations on taxes open to customers

While all other projects (FAST, RTO, RPO, and MSK) also built these in their project implementations, they did not result into high degree of efficiency or transparency. FAST and ATO achieved these to an average degree with mixed responses from the citizens, while RPO and MSK projects registered low degree of efficiency as well as transparency. Inadequate training inputs and inefficient data processing seem to be main reasons for this deficiency. The same deficiencies are reflected on the quality of web based services.

2. Extent of reduction of cost and improvement of convenience for citizens

Citizens experience great benefit if the government transaction processing is made convenient coupled with reduction in cost. This again is the stated objective of all five projects. To accomplish this objective, projects will have to:

- Create better amenities and ambience at service locations
- Increase revenues significantly to offset costs by widening customer base
- Offer services at locations convenient to citizens

The CCAMC and FAST projects have achieved all these with meticulous home work. The projects have created service centers with good amenities at new locations that are convenient to citizens. CCAMC has widened the customer base and enhanced its revenue collection significantly by offering attractive services.

Pressure is building up on the RTO and RPO projects to extend the services from different locations. While these two projects have captive customers, who approach these offices for licenses or passports, they are yet to improve the amenities to citizens and offer extended services to enhance the revenues and offer services at reduced costs.

The MSK project which is focused on service delivery to tribal citizens at their villages (through internet, like Gyandoot) needs an extensive marketing approach to enhance the base of good service providers as well as the intended beneficiaries. Currently, the value proposition (information dissemination), although very useful, is not attractive in its current form, for service providers as well as citizens.

3. Extent of reengineering and improvement of back-end services

The CCAMC, FAST, and RTO projects score high on this dimension. These projects have taken the advantage of information technology in simplifying the procedures (CCAMC – tax assessment computations, FAST, RTO – digitization of photographs, thumb impressions). Databases were built on the servers and departmental operating procedures were simplified in extending the end-user services. The office staff was adequately trained to work on the computerized systems. To achieve better efficiencies, private service providers were engaged by FAST and RTO projects.

Although, the RPO project has reengineered its procedures and used information technology to improve the internal processes and citizen service quality, this has not yet improved customer satisfaction. It appears that RPO needs to put more effort on staff training.

The MSK project perhaps has difficulty in reengineering the backend processes, since there are several of them which are not under the direct control of the project champion, the district collector. Except one or two processes like old-age pension scheme, even the processes which are directly under the district collector were not reengineered or computerized.

4. Extent of Integration of backend processes with front-end and web site

The efficiency and quality of services in a distributed environment depend on the extent of integration between the front-end user interfaces and back-end processes. The CCAMC project has accomplished this integration quite well and citizens as well as the office staff experience the advantage of such integration. For example, as soon as the staff processes the citizen's application for any service and updates its status online, it can be viewed by citizens from any internet node. This resulted in greater customer satisfaction since they get the accurate status of their application without using any middlemen.

The FAST, RTO, and RPO projects have integrated their front-end systems in their own locations with back-end departmental systems. However, their web-enabled services are not seamlessly integrated with their departmental servers. For example, users of RPO complained of lack of synchronization of information (application status) on the web server and departmental server. Such mismatches would result in additional costs to the users and loss of confidence in the system.

Lack of back-end integration in MSK project has resulted in limiting its use to stand alone mode, that too largely for printing forms for applying to different schemes. The

MSK operator works as a middleman between the citizen and collectorate, which is an undesirable intervention.

5. Degree of Employee involvement and change management

In the distributed service environment created by e-Government projects, employees will have to respond to higher expectations of the citizens. All employees should feel involved and have a sense of ownership of systems to satisfactorily deliver the services under the new reengineered environment.

The CCAMC project has exhibited high degree; and FAST and RTO projects exhibited average level of employee involvement in the computerized systems. The citizens are very happy with the helping nature of counter staff at civic centers of CCAMC project. The citizens are critical of unfriendly nature of staff in the RPO project, often felt misguided by them. The MSK project did not exhibit any serious employee involvement; citizens depended on the MSK operators who worked as agents for all their services.

This factor which is very critical to the sustenance of e-Governance projects depends on the team building and change management skills of the project champions and the degree of attention paid by them to accomplish high level of employee involvement.

6. Amenability for Public Private Partnership (PPP) arrangement

With the existing government policies and norms, often it becomes difficult to obtain certain level hardware, software, applications, service required for an e-Governance project. However, most of these can be accomplished through appropriate private participation. Projects must be designed in such a way that they are amenable for private participation without infringing upon the confidentiality and sensitivity of information being processed.

Except for the RPO project, all other four projects were designed in such a way that PPP is possible. In fact expertise of private parties was utilized for both application development as well as service delivery, in these projects. Perhaps due to higher degree of sensitivity of information being processed, RPO could not engage private service providers. To that extent, it had to depend on the internal staff for service delivery.

7. Strength of PPP arrangement in the Application Development

The quality of application developed determines the success of an e-Governance project. Both the front-end user interfaces as well as the back-end application design

are equally important. When a private party is engaged to develop applications, the capability of the party to understand the requirements, design a solution best utilizing the contemporary ICT architecture applicable to the environment of the project determine the degree of success. In addition, the terms of contract with the solution provider on the ownership of the solution developed (IPR), documentation provided, etc., determine the maintainability and replicability dimensions of the project.

The CCAMC, FAST and MSK projects have exhibited a high degree of strength in their arrangement with private parties in the application development, which is reflected in their ability to put up attractive user oriented applications within a short time frame. The RTO project is rated little lower in this dimension, since the application enhancements are not too smooth. The RPO project did not involve private partners in application development, the NIC, a central government organization for IT application development was engaged for this purpose.

8. Strength of PPP arrangement in the Service Delivery

The quality of service delivery in a partnership arrangement depends on the strength of such arrangement. The party selected must have better customer orientation and interface well with the staff of the department. The contract should be attractive enough for the party to engage medium to long term resources to extend high quality service.

The CCAMC project respondents expressed a high degree of satisfaction with the counter staff of the service provider. The FAST and RTO project respondents expressed an average level of satisfaction with the service provider. The RPO project did not use private service providers.

The service providers of MSK project are the kiosk owners, who work on entrepreneurial model. Due to lack of training on the rich set of services of MSK and due to anxiety to earn more through selling of forms (which appears to be the primary source of revenue), the MSKs have turned out to be form selling shops. Thus MSK project exhibits very low strength with reference to its arrangement on service delivery through private partnership.

9. Enhancement of Revenue

The broader objective of e-Governance projects is to enhance the base of citizens who pay taxes, by simplifying procedures and improving the accessibility of collection centers, so that the revenues collected can be utilized for better maintenance of civic amenities and for developmental activities. An e-Governance project must at least earn adequate revenues to pay for its cost and leave enough for upgradation and maintenance of the service infrastructure.

The CCAMC has exhibited a very high level of revenue generation (property tax highest ever collection – Rs.1300 million, vehicle tax – from nil to Rs.20 million in the year 2002-03) through its simplified procedures, enhanced services and citizen orientation. Other urban projects like FAST, RTO, and RPO did not have problems of revenue generation due to captive citizens who utilize the services for licenses, permits or passport. These projects are rated high on the revenue enhancement dimension. The revenue for MSK project initially came from enthusiastic kiosk owners who paid a deposit of Rs.5,000, which is adequate to meet the project costs. There is no evidence of increase in the number of citizens utilizing the services and paying for them. The project may be rated average on this dimension.

10. Technological Robustness

The system architecture is the back bone of any e-Governance project. Appropriate technologies which support the service requirements (like 24 hours access, good response times to queries, etc.) must be deployed. Alternative connectivity and power supply solutions must be explored. Hardware and software technologies must conform to standards so that the data and applications are inter-operable. The architecture must be scalable and permit integration of new user interface devices. The architecture must offer a high level of security and privacy, where required. The architecture must permit seamless integration of application modules and distributed servers.

The projects CCAMC, FAST, and RTO have deployed technologies that satisfy most of the above considerations and therefore are rated high on this dimension. In the RPO project, while most of the above considerations are addressed, the connectivity between the web server (with which remote user interact) and the application server at the RPO office are not seamlessly connected. This resulted in the inconsistency of application status information leading to loss of confidence by agents and citizens. Thus RPO is rated average on the technology dimension.

The MSK project, its web server is not integrated with the application servers in the departments. This lack of backend integration has reflected in the service quality. The MSK operators have to depend on the quality of connectivity (which is often poor) provided by the ISPs in the region. Currently, no alternative connectivity solutions are available. The project is rated low on the technology dimension.

Overall Summary

The table below summarizes our analysis of the five projects with reference to the ten factors that contribute to success, sustenance, and replicability. It can be seen that

CCAMC scored high on almost all dimensions and turned out to be successful and sustainable project. The MSK turned out to be the weakest project.

SNo.	Attribute	CCAMC	FAST	RPO	RTO	MSK
1.	Degree of efficiency and transparency demonstrated in citizen services	High	Average	Low	Average	Low
2.	Extent of reduction of cost and improvement of convenience for citizens	High	High	Average	Average	Low
3.	Extent of reengineering and improvement of back-end services	High	High	Average	High	Very Low
4.	Extent of integration of backend processes with front-end and web-site	High	Average	Average	Average	Very Low
5.	Degree of employee involvement and change management	High	Average	Low	Average	Very Low
6.	Amenability for Public Private Partnership (PPP) arrangement	High	High	Low	High	High
7.	Strength of PPP arrangement in the application development	High	High	NA	Average	High
8.	Strength of PPP arrangement in the service delivery	High	Average	NA	Average	Very Low
9.	Enhancement of Revenue	Very High	High	High	High	Average
10.	Technological robustness	High	High	Average	High	Low

Through the analysis presented above, the ten attributes identified by us seem to be adequate to evaluate an e-Governance project and reasonably assess if project has delivered its intended objectives and whether it is sustainable and can be replicated.

There are few more attributes which, according to us, need to be addressed to ensure that an e-Governance project is sustainable. These are:

- Involvement of users in the conceptualization, design, and implementation of the project
- Existence of user groups through whom regular service feedbacks are obtained
- Existence and effectiveness of periodical system reviews incorporating the uses feedback

We could not analyze the projects with reference to these attributes due to non-availability of data.