Research Article

Changed Governance or Computerized Governance? Computerized Property Transfer Processes in Tamil Nadu, India

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Abstract

The government of the south Indian state of Tamil Nadu is plagued by a bloated workforce, low levels of transparency and accountability, high levels of corruption, and poor quality of public services. Does e-government really meet such governance challenges? Tamil Nadu's first major e-government project, STAR, uses ICTs in the administrative processes relating to sale, mortgage, lease of real estate properties, providing title search reports, and allied services. This study of the objectives, implementation, and funding of the project and a survey of the impact on the stakeholders reveals that key policy choices, and not merely the technology employed, determine the impact of e-government projects.

Introduction

The south Indian state of Tamil Nadu, like other Indian states, has undertaken several e-government projects with the stated aim of improving the delivery of public services to citizens. *India: E-Readiness Assessment Report 2004* (Department of Information Technology, 2004) ranks Tamil Nadu as a leader among Indian states in e-readiness. Tamil Nadu is among the better-developed states in India. It has a vibrant and growing IT industry and is second only to Karnataka in IT exports. It had built up a good IT infrastructure to facilitate the growth of the software industry.

The World Bank (2004) study, *Tamil Nadu Governance Challenges,* identified three critical governance challenges faced by Tamil Nadu and made certain recommendations. It pointed out that the bureaucracy in Tamil Nadu had grown to 2.13 per 100 of the population (second highest among the Indian states). The consequent increased wages and pension expenditure was draining the state's resources. In November 2001, the state government ordered a freeze on recruitment. The report recommended measures to reduce the size of the workforce and improve the efficiency of the government. The second challenge identified was that of corruption in government, which is a challenge all over India. Transparency International India (2005) in *India Corruption Study 2005 to Improve Governance* reported that three-fourths of citizens thought that corruption of services had increased in 2004–2005 and that one-third thought that corruption was an "obvious fact" where both giver and taker were familiar with the modalities. Tamil Nadu was ranked ninth-most-corrupt among 20 Indian states on corruption in public services to citizens. The second set of recommendations in World Bank (2004) related to measures

to improve transparency and accountability and reduce corruption. A third set of recommendations related to strengthening the delivery of public services.

These governance challenges are precisely those that e-government is reputed to have the capacity to meet. OECD (2003) makes the case for e-government on the strength of its ability to improve efficiency, improve service quality, and build trust with citizens by promoting open and accountable government and preventing corruption. Given the conflation of Tamil Nadu's strong infrastructure in information technology and the presence of those governance challenges that can be met by using ICTs, it is interesting to study how much of these theoretical potentialities of e-government are achieved in practice.

It has been noted elsewhere (Stoltzfus, 2005) that there is pressure on governments across the globe to reinvent themselves as "e-governments." Given the IT infrastructure of Tamil Nadu and its relatively developed status among Indian states, it was inevitable that Tamil Nadu would use ICTs in public administration. But as the United Nations (UN) (2003) has pointed out, mere computerization of existing processes is wasteful and that computerization works best if the existing processes are reformed and transformed with a view to achieving better government. Expenditure on ICTs takes away resources from pressing development projects. Such expenditure can, therefore, be justified only if the use of ICT in public administration does not merely aim for efficiency and effectiveness in government operations. UN (2003) also points out that e-government can be wasteful if it uses resources but does not optimize operations, but it could also be pointless if it optimizes operations but has no or only minimal effect on objectives preferred by society. This article reports on a study of an e-government project in Tamil Nadu especially with a view to examining the policy objectives and the results.

STAR and REGiNET were the earliest large-scale e-government projects in Tamil Nadu. Launched in 1999, these aimed to computerize processes in the Registration Department (which performs functions similar to a recorder of deeds). Hundreds of citizens come into contact with this department every day, most of them in connection with transfer of ownership of immovable property (real estate). The department had become notorious for its inefficiency and

corruption. This article reports on the impact of these projects on the various stakeholders.

Methodology

Data presented in this article were collected over a 24-month period (2003–2005) in Chennai, the capital of Tamil Nadu. The details of the project were obtained from the website of the Registration Department (www.tnreginet.net), Demand Notes of the department for the fiscal years 2003–2004, 2004–2005 and 2005–2006 (Registration Department, 2003, 2004, 2005), press reports, and semistructured interviews with senior officials of the Registration Department at the office of the Inspector General of Registration, Chennai, as well as officials who were with the Registration Department during the implementation and have since been transferred and senior officers of the National Informatics Centre. (The National Informatics Centre [NIC] of the Department of Information Technology, Government of India, provides network as well as e-governance support to all the state governments in India as well as to district and local bodies. They provided technical assistance for STAR and REGiNET).

The stakeholders of the project were identified as (1) the citizen-users who visited the Registration Department (citizens), (2) the employees of the Registration Department (officials), and (3) the document writers and lawyers who assist the citizen in drafting documents, registering documents and in dealing with the Registration Department (professional intermediaries). (Document writers are persons licensed by the state government to draft documents and assist citizens in the registration process.)

The qualitative data obtained was supplemented by (1) schedule-structured interviews with the subregistrar and an assisting official in each of the 18 offices in Chennai and (2) structured interviews with users and professional intermediaries over one week at the subregistrar office (SRO), Mylapore, Chennai, the first office where STAR was implemented. The schedule-structured interviews were done face-to-face with 185 respondents in all comprising (1) citizens—92, (2) officials—36, and (3) professional intermediaries—57.

Registration Department

Background

The Registration Department came into existence in the year 1864 during the British colonial rule. At present, there are 560 SROs in the state, each headed by a subregistrar (SR). The SROs of the Registration Department register documents relating to sale, mortgage, lease, and transfer of immovable properties, contracts, wills, and so forth. Although the SROs also register partnership firms, chit funds, and marriages, this article does not report on these operations. A preliminary study indicated that most citizens visited the SRO for one of the following transactions: (1) registration of documents, (2) application for an encumbrance certificate (EC), (3) application for a certified copy, and (4) obtaining guideline values in respect of a particular property. The department collects fees for all the above transactions. This article focuses on the changes brought about in these four transactions by the project.

Registration of Document

Registration is a process where a document signed by the parties to the contract present it to the registering officer; the identities of the signatories are confirmed by two witnesses; fingerprints of the signatories are affixed on the obverse of the documents; a copy of the document is retained in the Registration Department. In India, a registered document is considered to be of greater value than unregistered documents. Documents relating to sale, mortgage, and lease of immovable properties are not valid unless they are registered. One of the purposes of registration is to have a public record of documents that evidence transfer of ownership or mortgages or leases of immovable property. Each SRO has jurisdiction over a specified geographical area. The SR registers documents relating to property situated within that jurisdiction.

Guideline Values

The documents that are registered are subject to stamp duty. Stamp duty is a levy by the State Government on documents. The duty is 8% of the market value for documents relating to sale of immovable property in Chennai. Besides this, a registration fee of 1% of the market value is also collected. Stamp duty and registration fees form a significant component of the revenues of the Government of Tamil Nadu. During the registration process, the SRs ensure that the documents are properly stamped and that there is no loss of revenue to the government. The bulk of the stamp duty is collected on the sale, mortgage, lease, and gift of immovable properties. To avoid loss of revenue on account of under-reporting of property value, in the documents, the government has issued "guideline values" for all the lands in the state. These are meant to assist the SR detect undervaluation of properties. In practice, the SRs insist that the stamp duty be paid on the guideline value even if the transaction value is lower. If the parties to the transaction are not prepared to pay stamp duty on the guideline value, they may prefer appeals. Guideline values are revised every year in urban areas and once every 3 years in rural areas.

Certified Copies

The SRO also grants certified copies of documents registered earlier. A certified copy is a copy of a registered document certified by the SR to be identical to the original.

Encumbrance Certificate

An EC is a key document to establish a person's title to an immovable property. It gives details of all registered documents relating to a specified immovable property during the period specified in the application. Since documents that transfer title to immovable property are not valid unless they are registered, reliable information provided about such documents is crucial to a proper appraisal of a person's title.

Registration Procedures before Computerization

The Registration Department followed archaic procedures, relying on paper records, manual copying procedures, manual indexing, and searching of documents. It did not even use technologies such as photocopying or microfilming in its operations.

Registration of a Document

The traditional procedure to register a document for transfer of ownership of an immovable property was complex, tedious, and time consuming. It had to go through the following steps.

1. Verification of encumbrances on property by obtaining an EC.

2. Obtaining the guideline value of the property from the SR, who gives it from a guideline register in his custody.

3. Calculation of stamp duty, transfer duty, registration fee, and other fees.

4. Purchase of stamp papers.

5. Drafting of the documents by lawyers/document writers and typing the document on stamp papers; typing a copy on a special type of paper referred to as "copy sheet."

6. Presenting the documents to the SR having jurisdiction over the said property.

7. Scrutiny of the documents by the SR, checking the valuation of the property and calculating the stamp duty, registration fees, and miscellaneous fees.

8. Payment of deficit stamp duty, if any.

9. Execution of documents (i.e., signing the documents) by the parties to the transaction in the presence of the SR and two witnesses.

10. Registration under the seal of the SR; a document number is stamped on the obverse of the document. These endorsements are then copied on the copy of document presented along with the original document.

11. Entries made in index registers to facilitate search of documents.

12. Return of the registered document to the citizen.

13. Binding the copy sheets into volumes for storage and future reference in case of application for ECs or for certified copies.

Issue of Encumbrance Certificates

A prospective buyer of an immovable property would like to know whether there was any subsisting lease or mortgage of the property. Similarly, a bank or other lender who plans to lend money on the security of a property would like to know if there was a previous mortgage. Since sales, transfers, leases, and mortgages of immovable properties have to be registered in order to be valid, a prospective buyer/lender can apply to the SRO for an EC for the property for a given period. This certificate will give details of all registered documents in relation to the property for the specified period. SROs issue such ECs for all properties in their jurisdiction to any person who applies for it. The applicant has to give the details of the property such as village, street, survey number, boundaries, and so forth and the period for which the EC is required. The officials in the SRO manually verify the records pertaining to the period mentioned in the application to check if any documents were registered in relation to the specified property. Based on the search, an EC is issued giving details of documents registered during the specified period.

Certified Copies

Any person can apply to the SRO for a copy of a registered document relating to immovable property regardless of whether he is in any way connected with it. With respect to other documents such as power of attorney and wills, only the persons who are connected with the transaction can apply for a copy. When a person applies for a certified copy giving the document number and year of registration, the officials locate the copy sheet of the document from the relevant bound records. Then a copyist manually copied the document and another official would check this copy. Finally, the SR would certify it as a copy of the original document and issue it to the applicant.

Enquiry of Guideline Value

Any person who needed the guideline value of a property had to approach the SR having jurisdiction over the property. The SRO would consult the guideline register in his custody and give the information orally. The values could not be obtained over the telephone or in writing or from other SROs. Guideline value enquiries thus entailed a personal visit to the SRO having jurisdiction over the property. It also entailed a personal enquiry of the SR, the key person in the office, who would be attending to other transactions such as registration of documents, marriages, and the like.

It has been pointed out (Yadav, 2003) that the key impediments in the old system to efficient delivery of services were that

1. Guideline values could be obtained only from the SR;

2. Search for encumbrances was done manually, leading to delays and mistakes;

3. Copies of documents could be made only by licensed copy writers/typists;

4. The registration process was cumbersome requiring manual endorsements to be made on copies;

5. Section writers had to manually write the certified copies; and

6. Huge volumes of records had to be maintained and this required large storage space.

Implementation of STAR and REGiNET

In 1999, the department decided to first identify those activities with maximum citizen interface and give the computerization of such activities top priority. It was found that the major irritants to citizens were the processes of registration and issue of ECs. Officials also reported that these were the most time- and labor-intensive processes. It was decided to computerize these processes first. A software package, STAR, was developed in-house under the supervision of the NIC. STAR facilitated (Registration Department, 2005):

1. Digital archival of documents by scanning the document and storing them and storing on compact discs.

2. Creating an electronic index of registrations.

3. Issue of encumbrance certificates by searching the electronic index digitally.

4. Issue of certified copies of documents already scanned and stored electronically by printing the scanned copies.

The implementation of STAR was done in phases.

I Phase: Implemented in 9 District Registrar Offices and 16 SROs by February 6, 2002

II Phase: Implemented in 41 DROs and 284 SROs

III Phase: Under implementation (as of August 2005) in 150 SROs; 108 offices are yet to commence implementation of STAR (Registration Department, 2004)

All offices were expected to implement STAR by 2006.

The first stage of implementation involved dealing with the data backlog. Under Indian laws, suits relating to mortgage can be initiated only within a period of 13 years. Thus, most applications for ECs would only be for a period of 13 years prior to the date of application. Although a few applications may ask for ECs for a longer period, the vast majority would want an EC only for 13 years. It was therefore decided to create an electronic index of registration for the previous 13 years. The data entry was initially outsourced for the first few SROs and validated by the staff of the registration department. Later, in other SROs, employees of the department did the data entry themselves.

Under STAR, data in each SRO was digitized separately. Besides, the channel of delivery continued unchanged. Project REGiNET, launched on September 13, 2002, aimed to network all the SROs and deliver a few services using the Internet. A website was launched that gives information about registration procedures. It also enables citizens to obtain guideline values from the Internet, and apply for ECs and certified copies. Finally, it enables sharing of information among the SROs so that the citizen can approach the nearest SRO rather than the SRO within whose jurisdiction a property is situated. STAR thus used ICTs in the backoffice of the SROs for registration, indexing, and ECs. REGiNET networks the SROs with one another and with the head office.

STAR is similar to the CARD project of the government of Andhra Pradesh. CARD (computerized administration of the registration department) was initiated in 1996 by J. Satyanarayana, head of the Department of Registration and Stamps (DR&S) in the government of Andhra Pradesh. It had the strong backing of Chief Minister Mr. Chandrababu Naidu. It was launched simultaneously in the 212 offices on November 4, 1998. By 2002, all the SROs in Andhra Pradesh were covered under CARD. Since it was one of the earliest e-government applications in India, it was reported on (Department of Information Technology, 2003; ICFAI, 2003; Bhatnagar, 2004; Government of Andhra Pradesh, n.d.) widely. Caseley (2004) points out that important visitors such as Bill Clinton (in 2000) and Tony Blair (in 2001) visited DR&S to see CARD. Bhatnagar (2000), in the World Bank's e-governance website, endorses CARD as a successful e-government project.

Resources and Funds

The total capital expenditure on all three phases of STAR and REGiNET is approximately Rs.620 million (U.S.$13.8 million). To fund the capital expenditure

and running expenditure, all STAR SROs collect an additional computer levy of Rs.100 for every document registered and every EC issued. Considering the total number of documents registered is more than 1.40 million, the entire cost of computerization has been funded by the registrants. Demand notes of the department (Registration Department, 2004) concede that the total expected collection by computer levies would be approximately Rs.260 million per year, while the total expenditure would be Rs.251 million. There was no fund outflow from the government on account of these projects.

Registration Procedures after Computerization

There has been significant change in the department's processes.

Registration of Documents

The copy sheet is no longer required. The citizen presents the signed documents and seeks registration. The registered document itself is scanned. This completely eliminates both the copying and the checking processes, as the scanned image will be identical to the registered document. This saves the tedious and time-consuming task of manual comparison and verification. The scanned images of the registered documents are stored in machine-readable media (compact disks) instead of hard copies being stored as earlier.

Issue of Certified Copies

Even more time is saved when a certified copy of the registered document is issued. Earlier, the bound volume containing the copy of the document had to be located and the relevant document then manually copied. Now a printout of the scanned image can be made if the document number and year are given. Here again, the process change saves a lot of work for the government officials as well as time.

Issue of Encumbrance Certificates

Earlier the issue of ECs involved a manual search of the indices and entering the results manually. After STAR, the index itself is computerized. To issue an EC, the index is searched electronically and the issue of EC is done by a strike on the keyboard. When STAR was launched, data for the earlier 13 years was entered into a database. Now, when deeds are registered with scanned documents, the electronic index is updated. As of 2005, for instance, records for the last 18 years are available electronically.

Enquiry of Guideline Value

Under REGiNET, a website (www.tnreginet.net) was created for the Registration Department. Citizens can access the website to find the guideline value of any property in the state by giving the revenue village, the survey number, and the street name. A visit to the SRO is no longer required. Even if the value is obtained from the SRO, the figure can be cross-checked from the website.

STAR has also computerized the receipt and accounting of receipts of registration fees, stamp duties, and other levies. Under REGiNET, citizens can also apply for ECs/certified copies online. The ECs can then be picked up from a REGiNET office or the citizen can opt for postal delivery.

Evaluation of STAR and REGiNET

Processes

The study shows that computerization of the back-office processes has contributed enormously to the increase in efficiency in the delivery of services and in obtaining the support of officials. Earlier, a substantial part of the time of the department officials was spent in ensuring that the document being registered and the copy in the SRO were identical and in manually copying all the endorsements and corrections on the copy of the documents and thereafter indexing the relevant details of the documents. Scanning the document and computerizing the indexing process saved an enormous amount of time by using technology that is relatively inexpensive and easy to use.

Similarly, the issue of an EC took time because the index had to be manually searched. First, the registers had to be located in the record room. The register had to be gone through to locate all documents relating to the property. The EC had to be then written out. Now, an EC can be printed out with a touch of a key.

The issue of a certified copy of a document earlier involved location of the bound volumes of the copies for the relevant year, then manually locating and transcribing the document concerned, and then checking if the transcription was accurate. Now, since digital scanned copies of all documents are available, the copy merely needs to be printed out.

Table 1. Effects of STAR and REGiNET Perceived by Government Officials

Effects of STAR	Strongly Agree	Agree	No Difference	Disagree	Strongly Disagree
Increased productivity of government employees	24	11		1	
More efficient record keeping	21	6	4	3	2
Reduction of burden on SRO staff in giving guideline values because of REGiNET	12	11	4	4	5

Table 2. Views of Government Officials About E-Government

Views on E-Government	Yes	No	Somewhat
Do you feel e-government projects make your work difficult?	14	18	4
Should more e-government projects be implemented?	34	—	2
Should projects similar to STAR and REGiNET be implemented in all government departments?	35	—	1

This process also makes the work of the employees far easier and has removed most of the drudgery of manual location of files, transcription, and other such requirements. These gains helped in obtaining support from the government officials involved because it eliminated all the tedious and time-consuming tasks.

As a result of the change in the process, officials of the Registration Department enjoy significant direct gains by the elimination of tedious, time-consuming and repetitive tasks that were part of the core processes of the department. In an interview with the researcher, a former inspector general of registration who implemented this project said that the potential gains to employees in the new operational processes were explained and used to overcome resistance to the STAR project.

The computerization of receipts of money makes the accounting of the collection easier and more accurate. On account of networking, it is possible for the headquarters of the department to obtain reports on collection of revenue through the network, instead of waiting for reports from all the offices and collating the data. Before STAR and REGiNET, about 600 reports were sent from the SROs. This has now been brought down to 140. Some of the potential advantages have not been fully realized, as only 300 SROs have implemented STAR. Once all SROs implement STAR and are also networked, the entire revenue collection for the state will be accounted, reported and monitored daily without any reports being sent from the SROs to the headquarters.

The officials surveyed had a high degree of enthusiasm for the STAR and REGiNET projects (Table 1). Although most of them were not computer enthusiasts—even after the project, only 14 of 36 say they are entirely comfortable using computers and 9 do not use computers for anything other than office work—they see substantial gains accruing from these projects. There is a high level of support for e-government in general, perhaps as a result of the impact of STAR on their work.

It is interesting to note that a few officials feel that e-government projects make their jobs more difficult (Table 2). The difficulty appears to be the process of learning IT skills as well as meeting the increased service expectations. Despite this, almost all of them would like more e-government projects to be implemented.

Officials of the Tamil Nadu government claim that STAR and REGiNET are superior to CARD. STAR/

Table 3. Government Estimate of Time Taken for Processes Before and After Computerization

Activity	Prior to Computerization	After Computerization
Issue of EC	8 days	5 minutes
Property valuation	30 minutes	5 minutes
Certified copies	4 days	5 minutes
Registration	4 days	60 minutes

Table 4. Mean Time Taken for Service Delivery Before and After STAR

Activity	Government Officials		Citizens		Professional Intermediaries	
	Before STAR	After STAR	Before STAR	After STAR	Before STAR	After STAR
Issue of EC (in days)	5.80	1.06	7.08	1.44	6.64	1.41
Property valuation (in minutes)	1.00	1.00	1.00	1.00	1.00	1.00
Certified copies (in days)	4.40	1.34	7.81	2.18	6.91	3.18
Registration without inspection (in days)	2.35	0.91	18.95	5.76	19.08	8.61
Registration with inspection (in days)	5.60	1.73	8.09	2.08	6.68	2.29

REGiNET enable data entry and retrieval in both Tamil and English. CARD uses only English. Besides, CARD does not provide any online services such as those provided by REGiNET.

Output

One of the promoted gains of STAR is that the process of registration would be much faster (Table 3). The government has given the following estimated time taken for various services before and after STAR. However, the actual time taken is more than the government estimate, though it is still a good deal less than the time taken before implementation of STAR as can be seen from Table 4. STAR has thus reduced the time taken for completing transactions although not to the extent claimed by the government.

Service Outcomes

One significant contribution to the increased transparency of the registration process is the availability of the guideline values through REGiNET. Earlier, the citizen had to obtain the guideline value from the SR, who in turn consulted a manual register. The

value was communicated orally. The citizen could never verify whether the value given to him was accurate, or whether a higher value was given to mislead him. Second, it involved a personal visit to the SRO having jurisdiction and waiting to see the SR. The access to the guideline value on REGiNET has eliminated both these shortcomings. Caseley (2004) points out that the process of obtaining guideline values is still nontransparent in Andhra Pradesh, where online access to values is not enabled. All the groups of respondents surveyed feel that access to guideline values through REGiNET has made the registration process more transparent (Table 5). Interestingly, this happens even though most citizens did not, in fact, use REGiNET. It appears that the fact that information is available through REGiNET has itself made the manual flow of information more transparent.

In the case of registration of documents, citizens look only for expeditious delivery of service, but reliability is an important requirement in ECs and certified copies. ECs are obtained to check whether there are any existing mortgages, agreements, sales,

Table 5. STAR Has Made the Valuation of Property More Transparent

Stakeholders	Strongly Disagree	Disagree	No Difference	Agree	Strongly Agree	Can't Say
Citizen/Users	4	—	6	8	61	13
Professional intermediaries	4	3	5	2	39	4

Table 6. Encumbrance Certificates Issued after STAR Are More Reliable

Type of Respondent	Strongly Disagree	Disagree	No Difference	Agree	Strongly Agree	Can't Say
Citizen/Users	6	5	4	9	61	7
Professional intermediaries	2	1	2	8	42	2

Table 7. STAR Has Helped Reduce Corruption

Type of Respondent	Strongly Disagree	Disagree	No Difference	Agree	Strongly Agree	Can't Say
Citizen/Users	27	6	6	5	40	8
Professional intermediaries[1]	19	8	4	5	15	5
Government officials[1]	1	1	4	6	20	3

1. One government official and one professional refused to answer the question on corruption as according to them answering it meant acknowledging its existence.

or similar documents with respect to a property. This is crucial information for a potential buyer of property or a bank or lender who proposes to lend money on the security of the property. Earlier, ECs were issued based on manual searches where errors were unavoidable. In the issue of a certified copy, mistakes were common in the process of copying. ECs and certified copies issued under the STAR process are more reliable and accurate because the search is done and the report generated electronically. This is evident to all the classes of respondents (Table 6).

However, STAR/REGiNET appear to have failed to make any impact on corruption. Most citizens believe that bribes are a common and unavoidable element in dealing with the Registration Department. Bribes were given to (1) obtain routine services, (2) ensure that registration of documents was not re-fused or delayed on some pretext, and (3) reduce the levy of stamp duty/registration fee. Some citizens feel that corruption has been reduced but not eliminated. Several citizens and professional intermediaries felt these projects have had no impact on corruption (Table 7).

Citizens and professionals are divided on the impact of e-government on corruption (Table 8). It is interesting to note that the government officials, by and large, claim that there is little or no corruption in the department. Citizens and professional intermediaries, however, state that corruption is rampant. In the course of the fieldwork, this researcher noticed bribes being paid and received. Informal conversation with officers reveal that corruption has come down substantially in services such as issue of ECs and certified copies, because it is possible for citizens to obtain these services online, but, since

Table 8. A Benefit of E-Government Is the Reduction of Corruption

Type of Respondent	Strongly Disagree	Disagree	No Difference	Agree	Strongly Agree	Can't Say
Citizen/Users	39	14	7	5	20	7
Professional intermediaries	19	9	10	2	12	5
Government officials	—	1	8	6	19	2

the actual process of registration is unreformed, corruption continues unchecked. Even in the registration process, there has been reduction of corruption. Earlier, some SRs used to overstate the guideline value and ask for bribes to reduce the stamp duty and registration fee. This is no longer possible as citizens have access to the guideline value on the web.

Satyanarayana (2000) points out that the most striking criticism against CARD was that it did not bring down corruption levels. The reason he gives for continued corruption is that CARD (1) was designed from a system-centric viewpoint and not from a "citizen-centric" viewpoint, (2) was implemented as a technology project and not as a project aimed at transformation of government, and (3) did not follow a PPP (public-private partnership) approach.

Caseley (2004, 1153), too, says that "CARD reforms have made corruption easier as SRO staff no longer have the laborious task of copying documents by hand or manually searching and writing ECs." Caseley (2004) also points out that though CARD had reduced time for registration of documents, there had been no impact on other dimensions of performance such as transparency, staff behavior, corruption, et cetera. He also says that even after implementation of CARD, SROs continue practices dating back to colonial rule, such as SRs sitting on pedestals while citizens stand and office attendees wearing old-fashioned uniforms. CARD also did not fundamentally transform the process of registration.

Conclusion

STAR and REGiNET have undoubtedly improved the processes of the Registration Department, increased the efficiency and reliability of the services. For the first large-scale e-government project of the state, it

has several significant achievements viz. development of software that could record and retrieve data in English and Tamil; training employees who were steeped in manual processes to use computers; entering data backlog of 13 years; making available key services on the Web; and a smooth and phased implementation.

One important reason for this success is that the nature of the services of the Registration Department lent themselves to rapid computerization. Digital archival and retrieval of documents and maintaining databases of property values and documents are among the easiest and least expensive of computer applications. These applications use hardware (scanners, printers, etc.), connectivity tools and database software that are widely employed in businesses. It was, therefore, unsurprising that this was the first department where large-scale computerization was attempted.

Second, the automation of the manual and routine time-consuming tasks got the support of department employees. This should have reduced the manpower requirements of the department. However, no employees were made redundant or transferred out of the department. While precise data on this matter could not be obtained, it appears that the natural attrition on account of superannuation together with a no-recruitment policy is expected to reduce the manpower employed over time. This decision helped avoid any resistance from the employees of the department.

These projects did not face any resource constraints as the entire cost was transferred to the citizens by the levy of a computer charge of Rs. 100. One would have expected that this project would reduce costs to the department and these savings would fund the projects. Instead, the easier approach of passing on the costs to the citizens was

chosen. However, citizens did not complain about the extra costs, presumably on account of the faster and more reliable service.

However, this success was achieved leaving the core process of registration unreformed. Although the citizen can obtain information using REGiNET and do most of the preliminary work, the actual process of registration of documents, marriages, and so forth still requires a visit to the SRO having jurisdiction. In the course of the fieldwork, the researcher observed that very few SRs offer a seat to citizens who come to transact. Citizens crowd around official desks. No prior appointments can be made. Documents meant for registration cannot be submitted earlier for pre-scrutiny. Continuing these citizen-unfriendly practices avoided any resistance from those who would have been affected, but it has also meant that an increased public value possible from a substantial reform was not attempted.

Lack of reform is also the cause for corruption to continue unchecked, though not unabated. Professional intermediaries, who visit SROs more frequently than citizens, actually were of the view that corruption had in fact increased under STAR. There has been no change in processes with the specific aim of reducing corruption.

For instance, it was observed in all the SROs that though the computer receipt was issued at the computer counter, the actual payment of registration fees was made to the SR in person. Only fees for ECs and certified copies were accepted at the counter. This makes it easier for the SR to take bribes. If the process had been reformed so that cash was never paid during the registration process for any legitimate purpose, it would have been possible to use cameras or other surveillance techniques to check corruption.

The system-centric approach of STAR is also evident from the way it continues the old model of agency-based delivery rather than a horizontally integrated delivery of services. A citizen purchasing a house would first register the sale deed at the Registration Department. After obtaining the registered document, she has to approach the corporation or the local municipal authority to get her name entered in the municipal records as the owner. Based on the change in the municipal records, she has to apply to the Water Supply and Sewerage Board to have her entered as the owner for water and sewerage connections. She has to apply to the Tamil Nadu Electricity Board for change in the name of the electricity connection. Finally she has to apply to the Revenue Department to have her registered as the owner in the land records. If these services were integrated at the SRs, then, upon the registration of sale, the change in ownership would be recorded in all departments.

SROs continue to operate within specified geographical jurisdiction, though these should no longer be relevant. If both the seller and buyer of a property in Chennai are in a place outside Chennai, they both still have to come to Chennai for registering the documents. This was needed under the old system when the relevant records, including values, were available only in the SRO within whose jurisdiction the property was situated. With networking, this should no longer be a relevant factor, but the old practice continues unchanged. STAR and REGiNET have thus succeeded in reducing the time for delivery of services and increased reliability, but these have been achieved without a thorough reform of the processes. Integration of services suited to the need of the citizen, who has paid for the entire cost of computerization, has also not been attempted. ∎

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