

Transparency and Corruption: Does E-Government Help?

Subhash Bhatnagar

Indian Institute of Management, Ahmedabad 380015¹

Introduction

Through its pioneering surveys in recent years, the Transparency International (TI) has tried to gauge the extent of corruption in different countries, identify Government departments where corruption appears to be most rampant, and establish some reasons why it seems to growⁱ. Two major factors that contribute to the growth of corruption are the low probability of discovery, and perceived immunity against prosecution. Secrecy in government, restrictions on access to information by citizens and the media, ill defined/complex and excessive rules, procedures and regulations can all lead to a low chance of discovery. A lack of transparency in the functioning of the government agencies can make it easy for the perpetrators to cover their tracks and unearthing corruption becomes very difficult. The weak character of institutions which are supposed to investigate charges of corruption and prosecute the guilty as well as an inefficient or corrupt judiciary further exacerbate the problem of corruption and facilitate immunity against prosecution.

Lately there has been much focus on the use of e-government as one of the key tools to fight against corruption. by opening up government processes and enabling greater public access to informationⁱⁱ.

Usage of the term *e-government* is of recent origin and there is no commonly accepted definition. E-Government is understood as the use of emerging ICTs like Internet, World Wide Web and mobile phones to deliver information and services to citizens and businessesⁱⁱⁱ. As a first step, information about services is published on a web site and citizens can interact with the site to download application forms for a variety of services. The next stage involves the use of ICT in the actual delivery of service such as filing a tax return, renewing a license, etc. More sophisticated applications include processing on-line payments.

In developed countries, these services are offered in a self-service mode through Internet Portals that become a single point of interaction for the citizen to receive services from a large number of departments. In developing countries, on-line services counters may operate in a department offering services related only to that department. In more evolved models, citizen service centers have been created at convenient locations where citizens can access on-line services of several departments. These counters are operated by department/private operators, the citizens do not directly interact with computer screens. Collection of payment is often handled through conventional means. In addition to such service centers, citizens may also be able to access service delivery portals.

The benefits to citizens and businesses from on-line delivery of services include convenience (location and time) and shorter waiting periods. In addition, e-government systems may lead to greater transparency resulting in reduced administrative corruption.^{iv} If the right procedures are in place, e-government can make financial or administrative transactions traceable and open to challenge by citizenry. Those responsible for particular decisions or activities can be readily identified. By providing

¹ Works part-time with the Public Sector Group, PREM Network, World Bank, Washington DC to guide their e-Government activity.

enhanced accounting, monitoring and auditing systems, e-government applications can ensure that public finances are fully open to senior managerial and external scrutiny.

The term e-government is sometimes confused with e-governance and the two terms are often used interchangeably. Governance is a broader concept which encompasses the states' institutional arrangements, decision making processes, implementation capacity and the relationship between government officials and the public. E-governance is the use of ICT by Government, civil society, political institutions to engage citizens through dialog and feedback to promote greater participation of citizens in the process of governance of these institutions. For example e-governance covers the use of the Internet by politicians and political parties to elicit views from their constituencies in an efficient manner or the ability of civil society to publicize views which are in conflict with the ruling powers. E-governance consist of two distinct but intimately intertwined dimensions: one political and the other technical relating to issues of efficiency and public management. With some overlapping goals between the two, e-government can be viewed as a subset of e-governance, and its focus is largely on reducing administrative corruption.

E-government and Corruption

Several case studies of e-government applications from developing countries report some impact on reducing corruption^v. Many governments have chosen to go on-line in departments such as customs, income tax, sales tax, and property tax which have a large interface with citizens or businesses and are perceived to be more corrupt. Procurement by government is also seen to be an area where corruption thrives. The very process of building an on-line delivery system requires that rules and procedures are standardized across regions and made explicit (amenable for computer coding). This reduces the discretion and opportunity for arbitrary action available to the civil servants in dealing with every applicant on a case by case basis. E-government can be used as an entry point for simplification of rules and reengineering processes.

E-government can lead to centralizes data which can be used for improving audit and analysis. Unbiased sampling procedures can be applied for audit purposes. Integration of data across applications can provide improved intelligence. E-government can make decisions traceable. As the possibility of exposure of wrong doing gets enhanced, the fear of consequent embarrassment can be a deterrent to corrupt practices.

By providing an alternate to a departmental channel for service delivery, e-government introduces competition which improves service levels and lowers corruption. Web publishing of Government information builds accountability by providing documentation to citizens to substantiate their complaints against corrupt practices.

However, benefits from e-government such as reduction of corruption opportunities are often incidental and not part of the design objectives. To extract maximal benefit from such applications, some features that can lead to greater transparency and accountability need to be consciously built in the design objectives^{vi}.

There is an implicit hierarchy and sequentiality of objectives on which e-government applications must focus to reduce corruption. Increasing access to information, presenting the information in a manner that leads to transparency of rules and their application in specific decisions, increasing accountability by building the ability to trace decisions/actions to individual civil servants represent the successive stages in the hierarchy.

All these objectives in tandem can curb corruption significantly, and ignoring some of them can defeat the whole purpose. For example, numerous web sites created by Government departments are ineffective because they tend to focus on the single objective of providing electronic access to information. Not enough effort is made to ensure that transparency and accountability are increased^{vii}. Table 1 presents the type of information where greater transparency can be enabled through e-government applications, which in turn can create disincentives for corrupt officials and businesses by increasing the chances of exposure.

	Type of Information being made transparent	Resulting benefits	Illustrations of E-government applications^{viii}
E - G O V E R N M E N T	Rules and procedure governing services; public officials responsible for different tasks; citizen's charter Enhancing citizen's exposure	Leads to standardized procedures for delivery of service. Citizens can resist attempts to delay processing. Reduces arbitrariness, e.g. demand for additional documents	Web sites of Government departments in many countries.
	Information about decisions and actions of government functionaries: outcome and process e.g. award of contracts and license, allocation of resources.	Exposure of corruption and improved accountability	E-procurement in Chile, Philippines.
	Data about individual entities in Government records such as land records, comments on application for license, bill of entry for goods, status of tax payments.	Exposure of manipulation for exchange of bribe and corruption	Bhoomi, on-line land records in Karnataka; OPEN in Seoul, Korea
	Information on performance of economy: Statistical employment, income, trade etc. Performance indicator for Government departments	Civic engagement in governance Greater accountability	Cristal-Budget disclosure in Argentina
	Names of citizens with large outstanding loans, taxes; civil servants under investigation or convicted, index of corruption, performance of investigating agencies.	A kind of punishment for the corrupt through public exposure	Central Vigilance Commissioner Web site, India

Disclosure of assets, income, profile of election candidates, elected representatives, ministers and civil servants	Creates disincentive for corruption by creating fear of exposure	Opensecrets in US; Public Affairs Council, India
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As indicated in Table-I, publication of budgetary allocations and expenditure on the web, systems for tracking status of applications for a variety of licenses, sharing citizen’s charter and performance data on the web are all known to increase accountability. However, increasing availability of information on the Internet does not mean that citizens will automatically use the information to demand greater accountability. The proportion of citizens who are willing to be constantly engaged in the process of governance is very small. Conscious efforts are required to drive citizens to the portal through advertising campaigns and education. Intermediaries that can analyze such information, and highlight exceptional conditions which deserve citizen’s attention are needed.

The Center for Responsive Politics, in the USA^{ix} is an example of such an agency. Its website, an open secrets guide illustrates the constructive role of intermediaries in presenting information to citizens in a format which makes it actionable, allows citizens to make a comparative judgment on the openness of campaign finances of different congress persons. The analysis is based on data which is in the public domain but not in a form that illuminates any corrupt practice. In a recent example the site provided timely analysis of voting patterns in the house of representatives on a bill that pitted long distance telecom companies against the baby bells. The analysis correlated the voting pattern to the campaign contributions from the two sides and demonstrated that the voting was across party lines, strongly influenced by the size of the contribution.

Traditional media can also play this role. As an alert watch dog, media needs to highlight such information and generate wide spread debate around significant issues of public concern. The web is a new medium for the traditional media reporters. Through workshops and seminars they need to be made aware of the detailed information made available on the web.

Egovernment Case Studies from India that Targeted Corruption

Two of the many examples referred to in the last column of the table above are described in some detail. These cases from India represent both success and failure in tackling corruption through e-government. These cases highlight the potential and pitfalls in designing e-government applications that focus on the twin objectives of transparency and combating corruption.

Bhoomi-Computerization of land records, Karnataka, India

The Bhoomi project of on-line delivery of land records in Karnataka demonstrates the benefits of making government records more open so that citizens are empowered to challenge arbitrary action. It also illustrates how automation can be used to take discretion away from civil servants at operating levels^x.

Nearly 20 million records of land ownership of 6.7 million farmers in the state have been computerized. Previously, farmers had to seek out the Village Accountant to get a copy of the Record of Rights, Tenancy and Crops (RTC) -- a document needed for many tasks such as obtaining bank loans. Village Accountant was not easily accessible, as his duties entailed travelling. The time taken by

Village Accountants to provide RTCs ranged from 3 to 30 days depending upon the importance of the record for the farmer and the size of the bribe. A typical bribe for a certificate could range from Rs.100 (\$1= Rs 50) to Rs.2000. If some details were to be deliberately written in an ambiguous fashion, the bribe could go up to Rs.10,000. Land records in the custody of Village Accountant were not open for public scrutiny.

In the manual system, land records were maintained by 9,000 Village Accountants, each serving a cluster of 3-4 villages. The village accountants also survey the crops grown on each farm three times a year. This data is printed at the back of the RTC. *Mutation requests* to alter land records (upon sale or inheritance of a land parcel) had to be filed with the Village Accountant. The Village Accountant is required to issue notices to the interested parties and also paste the notice at the village office. Often neither of these actions was carried out, and no record of the notices was maintained. If no objections were received within a required 30-day period, an update to the land records was to be carried out by a Revenue Inspector. In practice, however, it could take 1-2 years for the records to be updated.

In the Bhoomi project, a printed copy of the RTC can be obtained online by providing the name of the owner or plot number at computerized land record kiosks in 180 *taluk* offices for a fee of Rs.15. A second computer screen faces the clients to enable them to see the transaction being performed. A farmer can check the status of a mutation application on a Touch Screen provided on a pilot basis in three of the computerized kiosks. Operators of the computerized system are made accountable for their decisions and actions by using a bio-login system that authenticates every log-in through a thumb print^{xi}. A log is maintained of all transactions in a session.

In the next phase, all the *taluk* databases are to be uploaded to a web-enabled central database. RTCs would then be available online at Internet kiosks, which are likely to be set up in rural areas^{xii}.

A recent evaluation by an independent agency indicates that in the perceptions of the farmers Bhoomi has improved service and lowered corruption^{xiii}. During a 12 month period nearly 5.5 million farmers have paid Rs 15 and collected their RTCs from the Bhoomi kiosks. Bhoomi has reduced the discretion of public officials by introducing provisions for recording a mutation request online. Farmers can now access the database and are empowered to follow up. However, as there is no change in the role of Revenue Inspector in passing the mutation order, corruption in the mutation process may not necessarily reduce. Reports on overdue mutations can point to such errant behavior which supervisors must examine and take appropriate action. Clearly there is no substitute to good management.

Many efforts at computerization of land records in India have failed in the past. Bhoomi succeeded because there was a champion in the departmental head who worked a 15-hour day for over 12 months, devoting 80% of his time to the project. Minimizing resistance from staff by harnessing political support was an important contributory factor. Extensive training coupled with a participatory style also helped to diminish resistance.

Interstate Computerised Check posts in Gujarat

Ten check posts on interstate highways entering the state of Gujarat in India were computerised with the objective of tightening the inspection of incoming trucks for overloading and validity of document. The project was implemented in 9 months at a total cost of \$14 million, of which construction of roads leading up to the check posts accounted for 70% of the expenditure. The essential components of computerisation were: a video camera to capture registration numbers of incoming vehicles; electronic weigh bridge for weighing truck to determine overload; creation of a data base of trucks to retrieve

unladen weight of the truck; and installation of a wide circuit video camera based monitoring system. The central office in the capital state of Ahmedabad was to receive images from the check posts to monitor the activities^{xiv}.

As compared to the manual system where only 2% of the incoming trucks were flagged off the road for overloading, the current system enables a 100% check. The system was expected to reduce corruption by automating the fine levying process on overloaded trucks. There was a substantial increase in the fine collection over 3 years from \$19 million to \$ 50 million.

Judged on the basis of the revenue increase, the application was perceived to be very successful. However, after the transport commissioner, who implemented the project was transferred out (one year), many components of the application have been disabled. The private operators, who were manning the kiosks have left, as their contract was not renewed because of a dispute on the quotation. A recent evaluation study indicated that revenue collection continues to be at \$50 million inspite of the system not working^{xv}. However, corruption continues unabated. A bribe of one dollar is being charged from every driver and a third of the overloaded trucks are allowed to go without fines. Bribes are collected from such trucks averaging three dollars, which is only 10% of the fine that should have been collected.

The poor impact on transparency and corruption is because of the following flaws in the design and implementation of the project:

1. The expectation of a short tenure led the transport commissioner (project champion) to force the pace of implementation and complete the whole task in 9 months. Even though the equipment to automate the entire process was installed, many software and procedural elements could not be put in place in the short period. For example, the software to extract the registration number from the video image of the plate could not be debugged and fine tuned. The maintenance contract for the private operator beyond the one year warranty period was not finalized. A data base of trucks was not created because of other components not working completely.
2. The corruption at check posts is not purely administrative and one-sided. There is a clear case of collusion where overloaded trucks like to avoid a fine through payment of bribes. Such a situations requires a complete and fool proof automation, where there is no gate keeping role or manual discretion. Such systems also require a great deal of effort in changing attitudes of affected employees through change management. Intensive physical supervision for the first few years is necessary to institutionalise the change.
3. Finally, computerisation alone can not be a sufficient tool to tackle corruption. There was no effort to place this application in a broader context of departmental reform or a drive against corruption within a wider range of departments of the government. The political support that the application enjoyed during the first year of implementation was taken away because of a change in leadership.

In conclusion, the application was focused on the narrow purpose of increasing revenues. It did not build benefits for a variety of stakeholders, such as truck drivers, transportation companies, and inspectors. There were many vested interests, which bounced back after the political support was withdrawn.

Corruption often reflects the power distance between the civil servants and the citizens, particularly in case of poor, illiterate and ignorant citizens in remote areas. Demand for a bribe even when no favor is

involved can not be easily refused (as in the case of truckers without overload). It is important to supervise and monitor the performance of newly installed government systems until the norms of higher levels of service get ingrained in the civil servants.

Impacting Corruption Through EGovernment: the Way Forward

Much of the evidence linking e-government with reduction in corruption is anecdotal. Only in a couple of cases has the impact on corruption of government applications been audited independently^{xvi}. Systematic surveys of citizens and other stake holders can help establish the linkage more clearly and will also provide invaluable feedback on the parts of the system that need improvements. There is some evidence that use of ICT in Government can also enhance opportunities for corruption^{xvii}.

E-government reduces corruption in several ways. It takes away discretion, thereby curbing opportunities for arbitrary action which often results in corruption. It increases chances for exposure by maintaining detailed data on transactions making it possible to track and link the corrupt with their wrongful acts. By making rules simple and more transparent, e-government emboldens the citizens and businesses to question unreasonable rules and procedures and their arbitrary applications^{xviii}.

E-government can be used to combat corruption in two ways. First, e-government can become one of the key component of a broader anti-corruption strategy as is demonstrated by the OPEN system installed in the Seoul municipality in Korea^{xix}. Second, service delivery improvement initiatives can be implemented in corrupt departments, specifically targeting transparency and reduced corruption as objectives (as in the two cases discussed earlier).

By reducing administrative corruption in service delivery, e-government can reduce the tolerance for corruption amongst citizens who would no longer be required to compromise their honesty by paying a bribe to public officials. In addition a massive societal education effort is required to reinforce fundamental values like honesty.

E-government can lead to transparency provided that the legal framework supports free access to information. Until a few years ago most countries still had strict national secrecy laws. These have been repealed in favor of Freedom of Information Laws in the U.S. and much of Europe, but only after decades of lawsuits. Secrecy laws are still in effect in much of the developing countries. While increasing citizen's access to information, governments must also address risks to privacy and security.

Most developing countries are not fully ready to embrace a comprehensive program of e-government. Rather than wait for total readiness, an approach of learning by trial and consolidating small gains is recommended. The first steps are to identify a few pilot projects in departments which have some exposure to computerization, a large interface with public and have been assessed to be corrupt. Benefits of implementing the pilots need to be articulated in specific terms. Impact on transparency, corruption and poverty must be the underlying concern.

ⁱ Corruption in India: an empirical study, TI India, News bulletin, January 2003, <http://www.ti-bangladesh.org/ti-india/news/>

ⁱⁱ Bhatnagar Subhash, E-government and access to information, Global corruption report 2003 Profile books, London, pp24-32

ⁱⁱⁱ For definition and scope of e-government see <
<http://www.archives.nysed.gov/pubs/recmgmt/egovernment/definiti.htm>>.

Roadmap for e-government in the developing world, Pacific Council on International Policy, April 2002,

www.pacificcouncil.org ,

E. Tambouris, S. Gorilas, and G. Boukis, Investigation of Electronic government,

<http://www.egov-project.org/egovsite/tambouris_panhellenic.pdf> ,

Caldow J., 1997, The Quest for Electronic Government: A defining vision, Company Report, IBM Corporation

<http://www.ieg.ibm.com>

^{iv} Administrative corruption refers to the intentional distortion of prescribed implementation of existing laws, procedures, regulations to provide an unfair advantage to an individual or a firm in return for an illicit private gain to a public official. For a more detailed discussion see anticorruption in transition: a contribution to the policy debate, World Bank (2000), Washington DC

^v For example the cases on Beijing's Business E-park, Computerized interstate checkpoint in Gujarat, VOICE online delivery of Municipal services in Vijaywada, India, Philippine custom reform carried on the world bank web site report less corruption as one of the benefits. <http://www1.worldbank.org/publicsector/egov>

^{vi} Krishnan Gopakumar (2001) Increasing Information access to improve political accountability & participation, 3rd annual conference of the ABD/OECD Anti-corruption initiative for Asia Pacific, Tokyo, Japan, 28-30 November 2001.

^{vii} See Katherine Reilly, An External Evaluation of Central American Ministry of Environment Websites: Exploring Methodology, Policy Advocacy and E-democracy Working Paper #2, August, 2001 <http://katherine.reilly.net/e-governance/reports.html> who quotes an OECD (1998) study which reported "... many home pages have been mounted less for reasons of information and education than for reasons of prestige – to show that the government or department in question is "WITH IT" and not lagging others in the new digital world. A September 2001 article in the Costa Rican newspaper *El Financiero* stated that, while some innovative online government services are emerging, most Central American government websites are brochures with static information

^{viii} Description of specific cases listed here can be found on the World Bank site on e-government

<http://www1.worldbank.org/publicsector/egov>

^{ix} The center is a non-partisan, non-profit research group based in Washington, D.C. conducts computer-based research on campaign finance issues for the news media, academics, activists, and the public at large.

^x Rajeev Chawla and Subhash Bhatnagar, Bhoomi: Online Delivery of Land Titles in Karnataka, India,

http://www1.worldbank.org/publicsector/egov/bhoomi_cs.htm

^{xi} In a bio-metric log in a thumb impression is captured at every log in by a small inexpensive electronic device and validated against a pre existing stored image of the thumb.

^{xii} Internet kiosks are being set up in rural areas by the department of agriculture, NGOs and the private sector but the numbers are very small. See The Hindu, IT for agriculture: Karnataka move, April 3, 2002,

<http://www.hinduonnet.com/thehindu/2002/04/03/stories/2002040303460600.htm>

^{xiii} Whereas 60% of surveyed farmers reported paying bribes in the earlier system, only 2% report paying bribes in Bhoomi. See [Report Card on Service of Bhoomi Kiosks: An assessment of benefits by users of the computerized land records system in Karnataka](#)

<http://www1.worldbank.org/publicsector/bnpp/Bhoomi.pdf>

^{xiv} Panneerve P. and Bhatnagar Subhash, Computerized Checkpost in Gujarat,

<http://www1.worldbank.org/publicsector/egov/gujaratcs.htm#6>

^{xv} [Computerized Interstate Check Posts of Gujarat State, India: A Cost Benefit Evaluation Study](#)

See <http://www1.worldbank.org/publicsector/bnpp/Gujarat.PDF>

^{xvi} see a report by PAC, Bangalore, June 2000, State of the art as art of the state: public feedback on e-governance

<http://www.pacindia.org/>

^{xvii} Richard Heeks, Information technology and Public Sector corruption, September 1998,

<http://idpm.man.ac.uk/idpm/ispsm4.pdf>

^{xviii} Richard Rose (2002) Openness, impersonal rules and continuing accountability: the Internet's impact on Governance in east Asia, East Asia's future economy, Kennedy school of Government, Harvard University, 1-2 October 2001.

^{xix} OPEN: Seoul's anticorruption Project, <http://www1.worldbank.org/publicsector/egov/seoulcs.htm>