Workshop on Innovations in Governance and Public Service to Achieve a Harmonious Society

Role of E-Governance in Tackling Corruption and Achieving Societal Harmony: Indian Experience

Dr. R.D. Pathak  
Department of Management & Public Administration  
School of Social and Economic Development  
The University of the South Pacific, Suva, Fiji Islands.  
E-mail: pathak_r@usp.ac.fj

Dr. R.S. Prasad  
ICFAI Business School, Hyderabad (www.ibsindia.org)  
ICFAI University, Hyderabad, Andhra Pradesh, India  
E-mail: colrsprasad@yahoo.com
Abstract

This paper studies the impact of E-governance on corruption basing on the Indian Experiences. Though the primary objective of different e-governance projects was to provide information and services to citizens and businesses, all of them have succeeded in reducing or eliminating the corruption. The present study is an in depth analysis of some successful e-governance projects implemented in India. The study shows that e-governance projects resulted in elimination of corruption totally in many areas or reduced corruption substantially in others. This reduction in corruption had a positive effect on the society in achieving societal harmony. The authors conclude that e-governance can be a lethal weapon to fight corruption in developing countries and can help achieve societal harmony.

Introduction

Corruption is a complex phenomenon. There is a vast literature dedicated to defining the enormously rich term of corruption. For the purpose of this paper corruption is defined as the ‘use of public office for private gains’ (Bardhan, 1997). A similar definition is given by Rose-Ackerman (1999, 3) who describes corruption in following words

‘Corruption is a symptom that something has gone wrong in the management of the state. Institutions designed to govern the interrelationships between the citizen and the state is used instead for personal enrichment and the provision of benefits to the corrupt. The price mechanism, so often a source of economic efficiency and a contributor to growth, in the form of bribery, undermines the legitimacy and effectiveness of government’.

The work of Rose-Ackerman (1978, 1994) and Klitgaard (1995a, 1995b) is especially pertinent here. Professor Klitgaard’s and Rose Ackerman’s corruption framework is succinctly summarized in the following equation.

**Corruption = Monopoly + Discretion – Transparency (in governance)**

The concept of e-Governance is defined as the application of Information and Communications Technologies (ICTs) to the governance, to bring in Simple, Moral, Accountable, Responsive, and Transparent (SMART) governance (Budhiraja, 2003; Rajashekar, 2002 in Jain and Ramani, 2005; Heeks, 2001; Harris, 2004). The simple objective of e-governance is to support and simplify governance for e-governance community comprised of citizens, civil society organizations, private companies, government lawmakers, and regulators on networks (Tapscott and Agnew, 1999 in Jain and Ramani, 2005).

Citizens, businesses are dependent on the government for information and a large number of services. The successful use of ICTs by the businesses inspired some of the developed and forward-looking governments and they adopted these technologies for providing services to the citizens and businesses. Application of ICTs to the governance is being popularly called as e-governance. E-governance includes Citizen to Government (C2G), Government to Citizen (G2C), Business to Government (B2G), Government to Business (G2B) and Government to Government (G2G) interactions. India is one of the few countries that have taken up projects to harness the potential of ICTs in providing better governance. Different e-governance projects initiated in India had different objectives. Many e-governance projects were very successful, where as others were not as successful and some projects failed at delivering the stated primary objectives, but one thing in which all the projects succeeded is elimination or reduction of corruption to a great extent.

A number of factors contribute to the societal harmony. They include human dignity, freedom of speech, equity in society, equal opportunities, social development, prompt redress to grievances and injustice; absence of rich-poor divide and uniform distribution of wealth, rule of law, transparency and accountability in governance. Corruption in any form affects all these aspects and also all the institutions
of a civilized society that were supposed to create a harmonious society. Corruption reflects poor governance. The most dangerous aspect of corruption is that day to day corruption faced by common man erodes the moral fiber of the society (Transparency International India, 2005). Corruption is anti poor. The people that are hardest hit by the existence of corruption are the poor, the down trodden and under privileged sections of the society. Corruption can be very detrimental to and has the potential to destroy the societal harmony. Eliminating the corruption from the social fabric of the society has the opposite effect i.e. creating a harmonious society.

There is an inherent relationship between effective e-governance and reduced corruption in the society. In this study the relationship between these two i.e. successful e-governance and reduced corruption is examined by critically analyzing some of the successful e-governance initiatives in India.

The magnitude of the problem of corruption in India

After attaining independence from British, India opted for the parliamentary form of democracy. The aim of democracy is supposed to provide good governance. Good governance essentially means many things. They are the rule of law, absence of corruption, equal opportunity for individuals to realize their full potential and maximum productivity in utilization of physical resources (Vittal, 2004). Other attributes of good governance are transparency and accountability. Though India has proved to be a stable democracy, it cannot be said that it had good governance. The most important reason for this is the corruption, which has become endemic to all walks of life in the governance.

The extent of corruption in India can be gauged from what late Mr. Rajiv Gandhi, Ex Prime Minister of India has said about anti poverty programs. He observed that out of each rupee spent on such programs only 15 paisa reached the beneficiary with 40 paisa being spent on overheads and 45 paisa lost due to corruption. Corruption is the most important factor that contributes to the poverty and under development of countries.

According to the latest Transparency International’s (TI) Corruption Perception Index 2005, a study of 159 countries across the globe, released on 19 October 2005, India ranked at 92. The least corrupt country is ranked as No1 and the most corrupt country comes at the end of the list. TI’s Corruption Perception Index (CPI) ranks countries ‘in terms of the degree to which the corruption is perceived to exist among public officials and politicians’. CPI score relates to the degree of corruption, which ranges between 10 (very clean) and 0 (highly corrupt). In this India’s score is a poor 2.9. In fact India is one of the countries, which have the dubious distinction of increasing corruption with each passing year. In Transparency International’s Corruption Perception Index, India ranked 72 in 2001, 73 in 2002, 83 in 2003 and 91 in 2004. It is no consolation that all the countries in South Asia rank poorly.

The ‘India Corruption study 2005’ conducted by Transparency International India in twenty major states of India studied the corruption faced by the common man on a day to day basis in 11 public services. This study brought out very startling facts regarding the extent of corruption in India. The public services were covered under the following two groups: (i) need based services (six) comprising of Income Tax, Municipalities, Judiciary, Land administration, Police and Rural Financial Institutions; and (ii) basic services (five) comprised of Schools, Water supply, Public Distribution system, Electricity and Government hospitals. Need based services were found to be more corrupt. According to the study, the common citizens of the country paid a bribe of Rs 21068 crores (Rs 210.6 billions) during the last one year, while availing the eleven public services. The most disturbing factor brought out by the study is that even judiciary is plagued by corruption. According to former chief justice of Supreme Court of India, Sam Piroj Bharucha, up to 20% all judges in India are corrupt. TII’s study puts the value of corruption in judiciary at Rs 2630 crores (Rs 26.3 billion) per annum. Further the study reports that three fourth of citizens feel that corruption is increasing (TII – Center for Media Studies, 2005).

The above study does not include political and business related corruption or grand larceny in which thousands of cores of rupees are paid as bribes or government money siphoned off. If that figure were also to be included, then the total corruption in India would be mind-boggling. According to
Transparency International study (Transparency International Corruption Perception Index 2004) the amount that is lost due to bribery world over in government procurement alone is US $ 400 billions per year. The loss due to all forms of the corruption could well run into trillions of dollars per year. India contributes a major chunk to this pool being one of the largest economies of the world and also one of the most corrupt countries.

I. TYPES OF CORRUPTION AND FACTORS CONTRIBUTING TO CORRUPTION IN INDIA

Corruption in India can be classified as petty bureaucratic corruption at lower levels, administrative corruption involving senior public servants and the great political corruption. Bhatnagar (2003) differentiates corruption practices as administrative corruption, collusion and extortion. Administrative corruption involves delaying or denying service till bribe is paid. Collusion is a process where both parties gain at the expense of government and includes favors, lower valuation of taxes, waiving penalties and tempering government records. Extortion involves law enforcing authorities or tax collectors making unreasonable demands to extract bribes. The corrupt practices in India include kickbacks, bribes, nepotism, and misuse of office, misuse and abuse of public funds, unfair decisions in public procurements, unethical and unfair award of contracts for personal gains.

The factors contributing to corruption are political patronage, politician–bureaucrat nexus, politician-police–criminal nexus, lack of transparency in government and bureaucratic functioning, lack of accountability, complex administrative procedures, discretionary powers of executive and administrative authorities, absence of effective corruption reporting mechanisms, lack of deterrent punishments, poor conviction rates of the corrupt, corrupt judiciary, poor economic policies, black money, inadequate training of officials. Unfortunately the collective psyche of the Indian society has started accepting corruption as a way of life and the cost of being corrupt in India today is much less than the cost of being not corrupt. (Sondhi 2000, N Vittal, 2004)

Effects of corruption

Supreme Court of India compared corruption to cancer, plague, HIV Virus leading to AIDS, and also royal thievery. On the effects of corruption the honorable court said “The socio–political system exposed to such a dreaded communicable disease is likely to crumble on its own weight. Corruption is opposed to democracy and social order, being not only anti people, but also aimed and targeted at them. It affects the economy and destroys the cultural heritage. Unless nipped in the bud at the earliest, it is likely to cause turbulence to shaking of socio economic political system in an otherwise healthy, wealthy, effective and vibrant society” (AIR, SC 870).

According to Peter Eigen chairman Transparency International,"corruption is a major cause of poverty as well as a barrier to over coming it" ( Transparency International’s (TI) Corruption Perception Index 2005). Corruption makes public investment more expensive, reduces government income and its capacity for investment, retards country's growth potential and growth of GDP, results in poor public infrastructure, shifts investments from priority sectors (socially important areas) like education or health and social welfare projects aimed at under privileged sections of society to large investments with capacity to provide illegal earnings like defense purchases. Corruption restricts access of citizens to the public services they are supposed to get freely, generates black money which in turn generates corruption and increases rich poor divide. The costs of corruption to the nation also include personal losses, loss of time, development cost, political cost, and decline in work ethics and degradation of values and cost to the economy (National Integrity Report, 2001). Politically, corruption increases injustice and disregard for rule of law (Sondhi, 2000). Corruption also affects the foreign direct investment and also foreign aid. Amongst the number of factors that contribute to poverty, corruption is the most significant contributing factor that leads to the continuation of poverty and underdevelopment of a nation, society, government and economy. Every person suffers because of the corruption. But the worst sufferers are poor and
developing countries and the poorest people in these countries. All these factors collectively lead to poor development of the country, social tensions, and disharmony in the society.

Combating Corruption with e-governance

N Vittal, India’s ex-chief vigilance commissioner suggested a three-point formula to combat corruption. His three points are simplification of rules and procedures, greater transparency and empowerment of public and effective punishment to the corrupt (Vittal, 2004).

Colby (2001), Chaurasia (2003), Budhiraja (2003) and Millard (2004) feel that ICTs offer a number of benefits compared to conventional information management systems. They allow greater accessibility, wider reach, instant communication and dissemination of information, automatic record keeping, systematic classification and recovery of data, better knowledge management and the sharing of information. These characteristics have the power to transform the way public administration is conducted and the relations between government and citizens. The new possibilities offered by harnessing ICTs to public administration provide a powerful tool to combat corruption. Those responsible for particular decisions or activities can be readily identified. Administrative actions will be more transparent.

Transparency International India study of 2005 concludes that corruption facing the common man can be tackled by simple initiatives including introduction of technologies (TII – Center for Media Studies, 2005).

Yisheng (2002) says that it is the honesty and integrity that e-governance provides. He further mentions that e-governance helps prevent corruption and uphold integrity in public administration, and overall helps to promote democracy and rule of law.

Bhatnagar’s (2003, 2005) studies have highlighted the effect of e-governance on corruption. His studies confirm reduction of corruption in Indian States. According to him e-governance introduced transparency in data, decisions/actions, rules, procedures and performance of government agencies, simplified the processes and rules, taken away discretion by automating the processes, made decisions traceable, built accountability, provided greater access to information through web publishing, provided documentation to citizens for follow up. It has also introduced competition amongst delivery channels, standardized documentation of comments/objections leading to effective supervision, centralized and integrated data for better audit and analysis and enabled unbiased sampling for audit purposes. With effective e-governance, citizens no longer have to pay bribes to the officials because the chances for exposure of manipulation for exchange of bribe and corruption are high. This results in greater civic engagement and creates disincentives for corruption leading to good governance.

Sarah (2003) while assessing 20 e-governance projects in India confirms that it has led to greater responsiveness, transparency and accountability, improved service delivery and overall reduced corruption, all signs of good governance. Bowankar (2004) investigation shows that e-governance led to increased levels of transparency and greater public participation and trust.

Cho and Choi(2004) work is based on The Seoul Metropolitan Government reform measure to combat corruption, called the “OPEN” system, an acronym for the “Online Procedures Enhancement” for civil applications that went into operation in April 1999. In an opinion poll conducted by Cho and Choi, 84.3% of the respondents answered that the OPEN system contributed to transparency in the city administration and 72.3% answered that they are satisfied with the administrative handling by public officials.

Mahmood(2004) in his study has shown that e-governance has the potential of fighting corruption but has explored this by using three elements identified by Heeks(1999) which are (1) a sense of crisis, (2) a renewed ideology, and (3) the political will or power to carry out reform and incorporated his own variable of regime type. Mahmood’s proposition on the role of e-governance and its accessibility are satisfied in the case of Andhra Pradesh. The assessments are that the time and money needed to
complete government transactions are down substantially and the scope for corruption has waned (Foreign Desk, 1999; Dugger, 1999; Basu, 2000; Levander, 2000; Manor, 2005; Geddes, 1991 in Mahmood, 2004).

Prahald (2005) says that this way "transaction governance capacity" can be created which means that the citizens are empowered, they no longer face information poverty, they are able to participate, no longer have to wait in long queues, and above all, no longer have to face the social and economic consequences of corruption. Prahald (2005), illustrated Public Private Participation model in his book titled 'Fortune At The Bottom of The Pyramid' in which he shows how e-governance can curb corruption. Similar results are highlighted by Raghuveer (2005), Jain and Ramani (2005) and Dash (2005).

Another survey was conducted by Fuliya and Bansal (2005) to study provision of wide spectrum of citizen friendly services at a single place through e-governance. The findings confirm the improvement in service delivery and elimination of corruption and middlemen from the process.

Singh (2004) in his paper ‘Corruption, Transparency and good governance Agenda in India’ presented at the European Institute for Asian Studies, Brussels says "(In India) e-governance initiatives have begun to cut through the web of bureaucracy. Some states in India have begun to provide service delivery on line. And government web sites some time provide practical information on how to confront complaints about corrupt acts".

II.

A study of 21 successful e-governance projects in India, conducted by Skoch consultancy services (www.skoch.org, 2005) titled ‘Skoch e-governance report card 2004’ has brought out very interesting results on e-governance effect on corruption. According to this survey there is a considerable decline in corruption as a result of e-governance project. According to this report 81% respondents reported reduction in corruption. The extract of summary findings of this report in the form of a table is given in the appendix.

A survey conducted by Center for Media Studies in which 4500 citizens from five metros (Hyderabad, Delhi, Mumbai, Calcutta and Chennai) participated show that e-governance has brought down corruption in India. The study covered the basic services, electricity, municipal corporations, urban development, transport, civil supplies, hospitals, water supply and railways. According to this report, in Hyderabad where eSeva centers are operational, the presence of middlemen and corruption has declined from 63% in 2000 to 27% in 2004. In Kolkata and Chennai, the corruption has come down to 19 and 18 percent compared to 51 and 38 percent in 2000 respectively. In Mumbai the corruption level remained static and in Delhi the corruption spurted from 40 to 49 %. The reasons for decline in corruption in Hyderabad, Kolkata and Chennai were attributed to the successful functioning of e-governance projects (Economic Times, 2004).

III.

Therefore, the objective of this study is to analyze successful e-governance projects in India so as to investigate the extent to which e-governance initiatives succeeded in curbing corruption and helped in achieving societal harmony. The study based on the empirical studies reported above, hypothesizes an inverse relationship between successful e-governance and level of corruption which in turn contributes to societal harmony.

Methodology

Different studies of e-governance projects (Dataquest 2003, Network magazine 2005, Skoch e-government report Card 2004) have come out with different lists of successful e-governance projects in India. Many projects were common to most of these lists. For this study, we have taken those e-governance projects which have been reported to be successful in most studies of e-governance projects in achieving their stated primary objectives as well as in reducing corruption. The e-governance projects that have been analyzed are Bhoomi, CARD, Computerized Inter State Check Posts, Saukaryam, Customs online, Voice, Kaveri, Chief Vigilance Commission Web site and eSeva. The primary objectives
of all these projects are different (for example, provision of information, citizen services, simplifying the processes), but all of them have also succeeded in curbing corruption.

**Case Studies of e-governance projects leading to reduced corruption.**

**Bhoomi**

Bhoomi, a Government to Citizen e-governance project implemented by Karnataka, a state in southern India, is a shining example of how ICTs can help reduce discretion of authorities, improve accountability and transparency and reduce corruption. Farmers of Karnataka needed RTCs (Record of Rights, Tenancy and Corps) certificates for many purposes like getting a bank loan, verification and government pensions. Before this e-governance project became operational, in the manual era 9000 Village Accountants (VAs) managed all the land records. Land records held by VAs were not subject to scrutiny and there was no accountability or transparency in the process of providing the service. VAs enjoyed many discretionary powers and consequently farmers faced many problems. Mostly these village accountants were inaccessible and the service was delayed or denied unless bribes are paid. Getting RTC certificate used to take 3 to 30 days depending on the bribes paid. The bribes used to be in the range of Rs 100 to Rs 2500. Similarly requests to alter land records (mutation) on sale, inheritance involved VA and later Revenue Inspector. This process needed VA to verify the application and forward it to Revenue Inspector, who effected the change in the records. This used to take any thing up to two years. Again the service depended on the bribe. It was not uncommon for these officials to tamper with the government records to provide unfair advantages to the people paying bribes. VAs used to get a bribe of around Rs 10000, for writing ambiguous reports.

As a part of Bhoomi, Karnataka government has setup computerized land record kiosks, the Bhoomi centers, in Taluk (sub district) offices (expanded later to180 kiosks) to provide these services to the farmers. Bhoomi project involved automation of 20 million land records pertaining to 6.7 million farmers. Now a farmer can obtain a copy of RTC on line by paying Rs 15/- only from any of the 180 computerized kiosks in less than 10 minutes time. Touch screen facility has been introduced for easy access of citizens. Bhoomi has totally eliminated discretionary powers of officials by providing for online mutation request. Accountability has been built in, as the operators of kiosks have to provide time bound service. Security of data, transaction and procedures has been built in and the operator of the system was made accountable for their decisions. Improved accountability has resulted due to the deterrence placed by the system i.e. by tracking all database changes, documenting all objections, allowing easy access to citizens and providing ability to back complaints with evidence.

Delays and denials have been eliminated as the transactions were taking place in a public place and by following simple ‘First In First Out’ procedure and by spreading awareness that no bribes need to be paid. An empirical assessment was carried out by Public Affairs Center Bangalore as part of World Bank project ‘Governance Knowledge Sharing Program’. According to the study, 78% of users found the system easy to use and simple and 66% could use kiosks without help. 79% of the people did not have to meet any officials for their work except the kiosk operator; where as in manual system 19% had to meet at least one official and 61% had to meet 2 to 4 officials. The errors in documents have come down from 64% to 8%. 93% of users who received documents with errors like misspelled name etc sought rectification compared to 49% in manual system. Cost of service to the farmers has come down considerably as 84% of the users had to make only one visit to get the service. There was an 85% improvement in the implementation of mutation requests. The most important benefit is that the corruption had come down from 66% to less than 3%. The Bhoomi project saved the farmers Rs 806 millions in bribes and Rs 66 millions in wages annually. (Lobo and Balakrishnan, 2002; Narayan, 2004; Bhatnagar and Chawla, 2001).

**Computer-aided Administration of Registration Department (CARD)**

Computer-aided Administration of Registration Department (CARD) is one of the major success stories of e-governance in Andhra Pradesh, one of the most IT savvy states in India. The conventional
The procedure of registration was cumbersome which included 13 steps like ascertaining the value of the property, calculating the stamp duty, getting the legal document written, verification by sub registrar, copying the document, posting entries into register etc. Even a person selling a small piece of land had to go through multiple agencies like stamp vendors, document writers, registration agents (middlemen) and registration offices. Each step and each person in the process caused and contributed to corruption. In Andhra Pradesh there are 387 registration (sub registrar) offices, and they are heavily loaded with work, with total number of registrations running into 120,000,000 documents a year. The entire processes were clouded in secrecy. The procedures were very complex, rigid, and not comprehensible by ordinary citizens. There was total lack of transparency in evaluation of stamp duty. Not withstanding the guidelines available for the calculation of duty, which is a major source of revenue to state government, the procedure provided a lot of discretion to the officials. This discretion gave rise to lot of corruption. Dishonest citizens used to exploit this weakness by paying bribes and the honest citizens not willing to pay bribes were harassed with higher stamp duty assessment or delay in the service. There was no accountability. To avoid such things, the ordinary citizens were compelled to go the middlemen, who are in collusion with the officials. The middlemen were functioning as conduits for bribes. The middlemen and corrupt officials had a field day while the citizen and the state suffered. Further, the citizens had to wait for days on end even for simple services like issue of encumbrance certificates, the documents that show the transactions of the land needed for taking bank loans and some other purposes like mortgage.

The aim of CARD project was to purge the corruption ridden registration system by demystifying the process, bringing in transparent valuation system which is easily understandable by citizens, speeding up the processes, improve efficiency and citizen interface with electronic document writing and document management system. The idea of automating the functioning was started in 1988 but not with much progress. A second study was conducted during 1996 and pilot project started functioning September 1997. With the success of the pilot project, this project was extended to 212 registration offices. At present CARD has been made operational at 387 sub registrars offices across the length and breadth of Andhra Pradesh. The service levels for various services have been established and prominently displayed in the offices. After the implementation of CARD, the time for registration has come down from 1 to 7 days to 1 hour, issuing encumbrance certificates from 1 to 5 days to 10 minutes, issue of certified copies from 1 to 3 days to 10 minutes. Document writing, which used to take a number of days, could now be completed in 30 minutes and issue of valuation certificates, which used to take 1 complete day, now take less than 10 minutes. With in six months of operation of CARD 80 % of all transaction were carried out electronically and CARD had brought in transparency in valuation of properties and citizens themselves can calculate the duty. Officials are now responsible for providing the service with in the service levels. CARD established accountability on the part of Officials and reduced discretion to great extent. Now the CARD system is handling 5.7 million documents, 3.6 million encumbrance certificates, and 2 million market valuation slips. The most significant achievement of CARD is elimination of middlemen and organized corruption. The corruption is down by 90%. In absence of bribes, the savings to the citizens is more than Rs 1 billion and also increased the revenue to the exchequer. (Satyanarayana, 2001)

Computerized Inter-State check posts in Gujarat

Gujarat, a state located in the western part of India, has an extensive road network. The national highway links Indian capital Delhi with Ahmedabad and provides the passage for goods from the northern states to western states and vice versa. Further one of the largest sea ports, the Kandla port is located in this state. Due to these reasons there is a heavy movement of interstate goods carrier vehicles on Gujarat highways and it is estimated that more than 25000 interstate transport vehicles ply on these roads every day. More than 70 % these vehicles were found to be overloaded posing grave danger to other users of the road. The truckers overload to increase their revenues (and the manufactures of goods used to avoid sales tax and central excise duties) as the normal practice is to calculate the weight/ size by truck loads. Gujarat government also established 10 Interstate check posts. Gujarat Motor Vehicles Department (GMVD) controls road transport activity in the state. These check posts are managed by Road Transport Offices of GMVD. The primary duties of the officials include checking whether these interstate vehicles have paid the required road taxes or not, have all the documents like insurance and permissions and also
to ensure that they are not overloaded. They can penalize the transporter for other issues like broken or nonfunctional head lights and non-standard license plates. The inspectors have the authority not only to check the vehicles but also to impose the penalties to the erring vehicle operators. These check posts were known to be highly corrupt. The extent of corruption can be gauged from the fact that these officials were known to purchase the jobs at lucrative check posts by paying bribes to the tune of Rs 10 million and during 1999 out of 137 officers of the department, 27 of them were under suspension for corrupt practices. It also indicates the presence of political corruption.

Under the old system, suspect vehicles had to wait in the queue at the check post (CP), if stopped by the staff. The average waiting time used to be 46.6 minutes. The official (inspector) examines the truck and if he wanted to have accurate weight the vehicle is sent to nearest weighbridge. After inspecting the documents, the inspector calculates the penalty depending on the over load and issues a penalty notice. This process used to take 22.4 minutes on the average. The driver makes the payment and after completion of formalities moves away. The process of verification of the documents is manual and imposing penalties on the erring vehicles is arbitrary and discretionary. This system had a number of other shortcomings also. Only a few vehicles could be checked in a day resulting in loss of revenue to the state. Truck drivers are normally held up for several hours and the penalty charges are arbitrary. Truck drivers are normally forced to pay speed money (bribes) to the officials. Some officials colluded with truck operators and it was an open secret that some of these officials were on the pay rolls of large transport companies. To speed up the service and to ensure hundred percent inspections, the Government of Gujarat has implemented the e-governance project called Computerized Interstate Check Posts.

In the computerized system, all the vehicles (100%) were checked at the check post, in the order they arrived. The vehicle in its turn is weighed on an electronic weighbridge and the weight is automatically transmitted to the computer in the cabin. At the same time the vehicle number plate is digitally scanned and is sent to the video server. Here vehicle number is converted into text form and the data (weight and the vehicle number) is transmitted to the control room in Ahmedabad, the state capital on dedicated communication lines, where the particulars of the vehicle and details like road tax payment are checked with the help of license plate tracking system software. If the information is not available the details of the vehicle are added to the database. In case of any default in payments, the system sends and displays a message to that effect on the CP computer. Further the permissible weight and actual weight are also displayed. The software computes the penalty automatically and the system generated receipt is issued to the driver for making the necessary payment. To ensure transparency, all these details are also displayed on an electronic board displayed outside for the benefit of the driver. The driver makes the payment using a prepaid card. The vehicle driver is also required to make good any other aspect observed by the computer like repairing headlights before exiting check post, as only then the automated barrier would open. The total time involved in the entire process is 2 minutes in spite of the 100% check.

The net result is, it was no longer possible for the officials at the check posts to be arbitrary or collude with erring truck drivers for bribes and personal gains. This has been reflected in the annual income generated by the check posts. The income quadrupled from Rs 627.75 million to Rs 2.6 billion. The increase in the revenue itself is an indication of the corrupt practices prevalent in the system. A study team of ‘center for e-governance’ of IIM Ahmedabad conducted a survey into the effectiveness of the project one year after its implementation. According to that report the revenues have gone up ten fold recovering the investment made of $4 million in just six months and enhanced the revenue of the state. This project has succeeded in eliminating the corruption. However later this project has become defunct due to reasons not related to the functioning or efficiency of the system. This project was conceived in 1998 by the erstwhile Transport Commissioner of Gujarat state and implemented with support from Gujarat Government. Many RTO officials viewed the project as threat to them. However the project was implemented smoothly and ran well for a year, the period during which the commissioner was at the helm. One year later the commissioner was transferred. Later monitoring mechanisms were not utilized, maintenance and service contracts were not renewed under different pretexts and as result service provider withdrew his people. This provided the RTO staff the opportunity to misuse the system and revert back to old practices (CEG, IIM Ahmedabad, 2002, UNDP-APDIP 2005). This case amply demonstrates
how crucial the support from the project champion and the government is, to sustain the successful e-governance projects that root out corruption.

**Saukaryam**

Saukaryam in Telugu language means ‘comfort or facility’. Like in all other municipal organizations in India, Visakapatnam Municipal Corporation in the state of Andhra Pradesh was known for inefficiency, corruption, complicated procedures and poor services to the citizens. Even simple services like getting a birth certificate or property tax assessment used to take a number of days and citizens had to pay bribes. In the manual system, there was no transparency in building plan approval process and it used to take unduly long time and the corruption used to thrive. Procurement by Municipal Corporation was shrouded in secrecy. Traditionally bids and tenders for public works and procurement by municipality were fountainheads of corruption.

Saukaryam was the pilot e-governance project aimed at taking municipal services to the door steps of citizens, in a transparent manner. It is also the first project in the country developed on the philosophy of Public Private Participation in the e-government projects. This project covers whole gamut of provision of municipal services online. Citizens can access the Saukaryam through web site or by going to civic center kiosks or by conducting transactions through a network of banks. With Saukaryam, citizens can check their tax dues and pay online, apply for building plan approvals and track their status/get approvals online, get birth/death certificates instantly, and register their complaints. They can also get redress to problems regarding taxation, water supply, works management and information about town planning, leases of municipal property on line. Hospitals can forward birth/death information online. With Saukaryam project, Municipal Corporation started publishing all information relating to biddings and auctions, tenders, and procurement decisions on their web site. Interested parties can apply on line and also can follow the progress on line, which resulted in transparency.

Another salient feature is the citizen charter. These charters lay down the norms and standards regarding service and other activities to the citizen thus ensuring and improving the accountability. The rules and procedures are prominently displayed on their web site bringing in the much-needed transparency. There is no necessity for any citizen to visit the Municipal Corporation for most of the services. This project has also provided an online citizen's forum, where citizens can discuss the problems and vent their grievances. The utility driven web site serves every need of the citizen and eliminated the need for a personal visit which earlier gave an opportunity for corruption and harassment of citizens at the hands of the corrupt officials. Apart from being 24x7 service, this project has brought in much needed accountability and transparency and improved the speed of delivery of service to the citizen. What is most significant is the project’s ability to bring down corruption.

The success of the project can be gauged from the fact that every day more than 3000 citizens make use of this facility, and there are more than 25000 registered users for the corporation web site. Citizen services improved many fold and corruption has been eliminated to a large extent. This could be seen from the increase in municipal tax collections, the municipal corporation which was running in debit of Rs 350 million has made a surplus of Rs 1000 millions after the project was implemented. The names of tax defaulters were published on the web site. In two years 37000 birth certificates were issued on line and 17000 of 18000 complaints received were answered. After five years in operation, Visakapatnam city and Saukaryam have proved to be inseparable. (Jaju, 2003, www.saukaryam.org, 2005, www.stockholmchallenge.se 2001)

**Customs Online**

This is an e-government initiative of central government (Government of India). Customs department undoubtedly used to be the most corrupt department and was known for delay in providing service to the public. Like in any other government department the rules and procedures are quite complex with 18 stages of processing for exports and 15 for imports. The authorities are provided with vast discretionary powers. Accountability was totally absent.
Customs department was perceived as one of the most corrupt departments even by Indian standards. Much of this malice has its origin in lack of transparency and discretionary powers.

The government of India has introduced online functioning in all 23 customs offices all over the country. The process has been reengineered and the number of stages of processing in imports has been reduced from 18 to 6 and in exports from 15 to 5. Use of digital signatures and payment gateways has been brought in. E-filing of customs documents for imports and exports was in place and the remote filing through an electronic gateway has become functional from January 2004. Now 95% of all documents are being filed on line and 100000 people visit the customs web site daily to file the papers or to check the status. With effect from 01 April 2005, customs department has started accepting electronic payment of duties. Users can now make payments through designated banks.

Various studies conducted into the effectiveness of the new system have termed it as simple, transparent, fast and on the whole a great success. The reduction in corruption is estimated in billions of rupees. In absence of detailed data it is difficult to quote exact figures. However there is ample evidence that online functioning has brought down corruption substantially, increased transparency in functioning and enhanced the citizen services. (www.nasscom.org, 2005)

Vijayawada Online Information Center (VOICE)

The Vijayawada Online Information Center (VOICE) was an e-governance initiative launched in 1999 by the Vijayawada Municipal Corporation. Municipal corporations are well known for their corrupt practices and Vijayawada Municipal Corporation is no exception. Citizens are dependent on Municipal Corporation for services and had to make a number of visits to the municipal office and pay bribes. Speed of service entirely depended on the amount of bribe paid.

To provide the services at places nearer and convenient to the citizen, five kiosks located close to the citizens were opened in the town connecting them to the central server, eliminating the need for personal visits by the citizens. Some information was also provided on voice response system. After implementation, VOICE provided efficient services to the citizens in a transparent and speedy manner. Citizens could get most of the services or information including building approvals, payment of taxes, public health, and engineering, municipal budget allocations, tax payment, grievance registration and monitoring, birth/death certificates on line. Rent calculations for advertising space are made automatic removing discretions and bringing in transparency. In just one year the system issued 15000 birth/death certificates, 2100 building approvals, 224000 demand notices for taxes. 7700 grievances were registered and 97% of them were resolved. This project has reduced corruption, made access of services convenient and also improved the finances of local governments (Kumar and Bhatnagar, 2001, www1.worldbank.org; CMC Limited 2004; Government of Andhra Pradesh, 2005).

A.

B. Karnataka Valuation and E-registration (KAVERI)

Kaveri is a Karnataka government e-governance project aimed at speeding up the registration process and delivery of documents to citizens through fully automated registration process. Like in Andhra Pradesh (CARD project) the maladies afflicting the registration system are similar i.e. lack of transparency, complicated procedure, discretionary powers, middlemen and insensitive officials. Corruption flourished in such a situation. In addition to paying bribes, the process was a burden on the people’s time also. Earlier attempts of government in improving the system with automation did not produce
the desired results. Various studies into the functioning of the old system clearly indicated that unless all the processes are reengineered, the project might not be able to achieve the stated aim. Also large amounts of funds were needed for implementing such a large project of automating 201 registration offices. The government of Karnataka had overcome this problem by opting for public private participation model, where by private parties operated the front end operations (interactions with citizens) through kiosks and the registration department handled and controlled the back end process. The role of private partners was to provide the hardware, office furniture and manpower needed for front end operations like data entry, scanning and also archiving data on regular intervals. They are expected to recover their costs from the service fee charged to the users. The registration department was responsible for providing software, complete registration process and issue various certificates. The project became fully operational during 2003 and turned out to be a successful project. A survey conducted by Skoch International in Bangalore found that the project was user friendly, simple, and fast in delivery of service. One of the major finding of the study is that the corruption has come down by 80% and respondents to the survey rated reduction in corruption at 8 on a scale from 0 to 10. (Murthy, Mujibshiekh and Patil, 2002).

Chief Vigilance Commission (CVC) Web site

By any standards web site by CVC is the most innovative experiment of e-governance undertaken by a government department entrusted with the responsibility to control corruption in the government. Following direction from Supreme Court of India, CVC was made a statutory body in 1988. CVC under the leadership of the then Commissioner Mr. N Vittal, with the idea to propagate zero tolerance of corruption, launched a web site to share the information on corruption with the general public. In many aspects this web site is unique. The features of web the site include information on its role, responsibilities and strategies to fight corruption. The web site guides the citizens on the procedure to be followed to lodge complaints without fear of reprisal. Other information on the web site include the list of nominated officers from different departments who are entrusted with the responsibility of taking the complaints and the corruption statistics are published. The most important aspect the web is publishing the list of corrupt Indian Administrative Service and revenue service officers, who have been charged under corruption or punished.

This easy procedure of making complaints against corrupt government servants, and likelihood of publication of names on the net had acted as quite a deterrent. This initiative has generated a lot of resentment among senior officials but was well received by the public. A public survey into the effectiveness of this experiment by Economic Times revealed that 83% respondents believed that naming charged officers would have a deterrent effect and 90% of respondents of Hindustan Times study welcomed this action. This has brought out an important fact that some officials tainted with corruption were found to be occupying sensitive posts which they should not have been occupying. Another benefit of this web site is the mass media i.e. the print and electronic media have been able to transmit important information further to the public. This has offset the problem of low computer and Internet density in India. This undoubtedly is a bold attempt to make information available to general public and also deter unscrupulous officials from indulging in corruption. (Bhatnagar, 2003; Vittal, 2004; www.cvc.nic.in)

E-seva

E-seva literally means electronic service. The aim of eSeva is to provide citizen services under one roof. eSeva project implemented by Andhra Pradesh government on 25 Aug 2001 was an endeavor to provide a number of citizen services like payment of utility bills, taxes, registration of births and deaths, issue of birth/death certificates, registration of applications for pass ports, filing sales tax returns, and also Business to consumer (B2C) services like payment of bills to some Telecom companies under one roof.
In manual era, provision of these services involved running around a large number of offices, petty bureaucratic corruption and generally resulted in a lot wasted time for citizens. As on today, e-Seva provides ‘One-stop-shop’ for over 66 Government to Consumer (G2C) and B2C services to the citizens. Many more services like railway reservations are in the pipeline. 46 eSeva centers, with 400 service counters are spread over the twin Cities of Hyderabad and Secunderabad, and also Ranga Reddy district and any citizen in the twin cities can avail of the services at any of the e-Seva service centers. These centers function from 8.00 am to 8.00 pm, on all working days and 9.00 am to 3.00 pm on holidays (Second Saturdays & Sundays). Payments can be made by cash, or cheque or DD or through credit card or on Internet.

This project is a tremendous success. From a modest collection of Rs 43 lakhs (Rs 4.3 million) in August 2001, the collections went up Rs 2500 cores (Rs 2.5 billion) by 2004. With the stupendous success the project has been extended to other parts of the state including rural areas. For a project which costed Rs 360 million, now e-Seva centers are collecting revenues of Rs 3 billion per month and are serving 3.5 million citizens. eSeva has succeeded in providing all citizen related services under one roof and also eliminated the corruption totally and made the entire processes transparent (www.esevaonline.com, Raghuveer,2005).

Discussion

Analysis of the above cases amply demonstrates that e-governance can be a very effective tool in reducing or altogether eliminating corruption.

Corruption flourishes where there is no transparency in government functioning. The availability of quality information about governance enhances transparency. Most e-governance projects studied above have increased transparency by making available the information about the functioning of government and its officials to the citizens round the clock or on demand by using the technologies like web and Internet. Saukaryam project for example provided total transparency in awarding public works contracts by publishing all the relevant information on the Web. This transparency in functioning and decision making process has eliminated the corruption to a great extent. The more transparent the system of governance is the less the opportunities for corruption.

Most e-governance projects brought the governance (services) to the door step of the citizens. Under the old system, for every service the citizen had to go to the concerned department and meet the officials to handover the applications needed for the service. This physical contact of the service provider and citizen gave the opportunity to the officials to extract the bribes. Most citizens were compelled into paying bribes to avoid the expenditure involved with another visit, if the service is delayed on some pretext. With e-government projects like Saukaryam, Bhoomi, Customs online; the citizens and businesses now can get the services without meeting any officials. Thus the e-governance projects strike at the root and eliminate the opportunity for corruption in the first place.

Complex and ambiguous rules and cumbersome procedures results in discretionary powers of the officials. Discretionary powers are the root cause of corruption in many organizations like customs, income tax, and road transport departments. In Gujarat the road transport officials enjoyed unquestioned discretionary powers in checking the vehicles or about the amount of penalty levied on the truck operators. Gujarat state’s Computerized Inter State Check Post project has taken away the discretionary powers of road transport inspectors with innovative use of technology and simplifying the process. The five fold increase in revenue to the state proves how effective the e-governance project was in eliminating the corruption.

As the government is the sole provider for many citizen services, the officials used the government monopoly for perpetuating corruption by delaying or denying the service to the citizens. In the manual system, in the Karnataka state, it was impossible for any one to get RTC certificates from the Village accountant, in a reasonable time, without paying bribes. In the Bhoomi project of Karnataka, CARD and such other e-governance initiatives, technology helped in overcoming the problem of
monopoly by setting service levels. Government agencies or officials could no longer delay the service for want of bribes.

Above discussed e-governance projects made the government and its officials accountable for their actions. Unlike in the manual process all the actions can be traced back to the originating point and the ability to trace the results to initiator is explicitly built in. The responsibility for inappropriate actions can be fixed for any incorrect decision, which was not possible in the manual system. Citizens can track their applications, complaints, and any delay could be brought to the notice of higher authorities. Unlike in the paper-based systems, superiors while working on line to monitor the progress can retrieve electronic documents. Further publication of budgets and performance indicators, citizen’s charters helped improve accountability and reduce corruption.

In most cases reduction of corruption is a by product of a primary objective like enhancing speed of delivery of services to citizens. But as the CVC (Central Vigilance Commission) WEB site experiment proved, such e-governance initiatives can be used to declare war on corruption. Though there were many strong objections from many quarters, the CVC persisted with the initiative, which had the effect of awakening the sleeping conscious of the society. Many corrupt officials had to face the ignominy of finding their names in the corrupt list.

Successful e-governance systems standardized the rules and procedures. The processes were reengineered to eliminate discretion. The design of the systems did not permit any deviation from the established procedure and also reported non conformance. Similarly features that contribute to accountability and transparency were deliberately built into the design of e-governance systems. However e-governance systems need continuous monitoring and assessment and the respective governments can not afford to be complacent after initial successful implementation. Once the employees understand the new system, some of them can develop new ways to exploit the system or they can contribute to the project’s premature demise through other means. Gujarat’s Inter Sate Check Post project is an example of this.

To fight corruption e-governance projects must be selected from the areas where opportunities for corruption are high and then involve the citizen’s right from the design stage. The design should be outside- in basing on what the citizens want rather than the traditional inside-out. Use of ICTs in isolation will not guarantee the success of e-governance project in achieving its objective and eradicating corruption. The processes must be examined thoroughly and reengineered as using ICTs with out-dated process only increases the corruption by providing the opportunity to perform corrupt practices faster.

Most e-governance projects discussed above have also enhanced the government revenues. In most cases e-governance projects paid back the investment in a few months of their operation. Bhoomi, Saukaryam and CARD are some such projects. E-governance projects like Bhoomi, VOICE, Saukaryam, and eSeva have generated employment opportunities for the poor. These projects have also proved that problems like literacy, digital divide can be tackled through innovative use of ICTs and Bhoomi project is a clear example of this.

A lot of research has gone into the phenomenon of corruption and e-governance. But not many studies have focused on the impact of e-governance on corruption. Well designed citizen feedback surveys can be of immense help in improving the e-governance projects and there is an urgent need for such studies.

**Conclusion**

Corruption destabilizes the society by creating social tensions. Corruption also indirectly increases the crime rate and violence in the society. Analysis of terrorism in different parts of India proved that corruption in government (specially relating to government jobs) is prominent and misled many young people to join terrorist outfits. E-governance project discussed above made the governing process transparent, took away arbitrary and discretionary powers of government servants, and made them accountable. The citizens started having a better say in governance and felt empowered. E-governance
projects analyzed above demonstrated that innovative use of ICTs not only enhance the citizen services but also and reduce corruption in a number of ways. Also, E-governance not only reduced corruption but also improved the revenues of the government which could be used for socially relevant areas like health, education, eradication of poverty and uplifting the down trodden. E-governance projects also generated employment especially for the rural poor. E-governance provided equal opportunity for all the citizens and no one is more equal than others. Thus Indian e-governance projects helped in developing societal harmony. E-governance alone may not be one-step solution for eradicating corruption, but certainly can complement all other efforts. Elimination of corruption results in good governance. Thus in the light of Indian experience, we conclude that e-governance has the potential to tackle corruption effectively and usher in societal harmony.

(Word count: 8813)

References


Appendix: (Extract of Summary: Skoch e-Governance Report 2004)

<table>
<thead>
<tr>
<th>State</th>
<th>Project</th>
<th>Ease of Use</th>
<th>Speed of Delivery</th>
<th>SLAs</th>
<th>Simplicity of Procedure</th>
<th>Time Savings Compared to Manual</th>
<th>Affordable Cost of Service</th>
<th>Reduction in Corruption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assam</td>
<td>TIMS</td>
<td>7</td>
<td>9</td>
<td>9</td>
<td>8</td>
<td>10</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Assam</td>
<td>AAMAR SEWA</td>
<td>9</td>
<td>7</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Assam</td>
<td>CIC</td>
<td>8</td>
<td>7</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Uttaranchal</td>
<td>Aarohi</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Uttaranchal</td>
<td>Land Records</td>
<td>7</td>
<td>9</td>
<td>9</td>
<td>10</td>
<td>8</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Delhi</td>
<td>Passport*</td>
<td>4</td>
<td>5</td>
<td>7</td>
<td>2</td>
<td>3</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Delhi</td>
<td>Driving Licence</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>5</td>
<td>9</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Center</td>
<td>Agmarknet</td>
<td>4</td>
<td>2</td>
<td>7</td>
<td>7</td>
<td>9</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Center</td>
<td>TIN</td>
<td>7</td>
<td>8</td>
<td>8</td>
<td>7</td>
<td>9</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Center</td>
<td>Railways</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>10</td>
<td>9</td>
<td>10</td>
<td>9</td>
</tr>
</tbody>
</table>
About the Authors

R. D. Pathak:

RD Pathak is Professor and Head, Department of Management and Public Administration, The University of The South pacific, Suva, Fiji Islands since February 16, 2000. Dr Pathak has taught in various universities for 30 years and also worked as a Commonwealth Academic Staff Fellow at the Manchester Business School in Manchester, UK. Dr Pathak’s recent assignment was as “Fellow” in the Department of Management, The University of Melbourne, Australia w.e.f. December 8, 2003 to February 2, 2004 and September 1, 2004 to February 5, 2005. He has published three books and a number of papers in refereed international journals. His areas of research interest are: leadership, entrepreneurship, creativity and innovation management, managerial effectiveness, and management of technology. Dr Pathak has also participated and presented papers in more than 50 National and International Conferences, seminars & workshops.

Dr RS Prasad

Dr RS Prasad is a faculty member and In Charge (Head) of Information Technology at ICFAI Business School, Hyderabad, and ICFAI University, India. He is a post graduate in science (M Sc), Engineering (ME), and Business Administration (MBA). He has been awarded Gold Medals in ME and MBA. He has 23 years of experience in Information Technology and 12 years of teaching experience at post graduate level. His areas of Interest are CRM, Cyber Crime, e-Governance, e-Commerce, Software engineering and Quality management, Project management and Knowledge Management. He has authored three books, two on Cyber crime and one on CRM. He has published more than 30 papers in reputed journals and magazines.