

## E-government to combat corruption<sup>1</sup> in the Asia Pacific Region

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### Abstract

The introduction of ICT can reduce corruption by improving the enforcement of rules, lessening the discretion of officials, and increasing transparency. Yet, while ICT eliminates many opportunities for corruption for those who do not understand the new technology fully, it opens up new corruption vistas for those who understand the new systems well enough to manipulate them. Proper safeguards are needed. In addition, ICT specialists and public managers need to work together to ensure that e-government systems are coordinated with other reform processes, including business process re-engineering. The paper will examine the experience of Asia-Pacific countries in this area.

### Introduction

E-government is the use of information and communication technology (ICT) to promote more efficient and cost-effective government, more convenient government services, greater public access to information, and more government accountability to citizens.<sup>2</sup> E-government applications vary widely in the diverse Asia-Pacific region, where the countries range in population size from the People's Republic of China (PRC) to Nauru, and in per capita GDP from Singapore to Nepal.

ICT-enabled reforms can yield many benefits, including lower administrative costs, faster and more accurate response to requests and queries (all day everyday), direct access to transaction or customer accounts held in different parts of government, and the ability to harvest more data from operational systems, thus increasing the quality of feedback to managers and policymakers. A study of innovation awards given to government agencies in the US revealed that all the agencies applied technology in innovative ways such as allowing citizens to handle common legal matters online. Among the promises of e-government advocates is that these systems can help to

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<sup>1</sup> This paper was written by Clay G. Wescott, Principal Regional Cooperation Specialist, Asian Development Bank. The views expressed in this paper are his own and do not necessarily represent those of ADB. For a fuller treatment of the range of e-government applications in the region, see Wescott, C. 2001. E-Government in the Asia-Pacific Region. *Asian Journal of Political Science* 9 (2); and Wescott, C., M. Pizarro, and S. Schiavo-Campo. 2001. The Role of Information and Communication Technology in Improving Public Administration. In *To Serve and To Preserve: Improving Public Administration in the Competitive World*, edited by S. Schiavo-Campo and P. Sundaram. Manila: ADB. Available: <[http://www.adb.org/documents/manuals/serve\\_and\\_preserve/default.asp](http://www.adb.org/documents/manuals/serve_and_preserve/default.asp)>. This and other URLs cited in this article were all accessed on 19 February 2003.

<sup>2</sup> Some define e-government more restrictively, making it the public sector equivalent of e-commerce; see World Bank. *E-Government*. Available: <<http://www1.worldbank.org/publicsector/egov/index.htm>>. Others take a broader approach, as does an article in the *Economist* ("Survey: Government and the Internet", 22 June 2000) on the many possible benefits from other ICT applications in the public sector. Major English dictionaries do not yet list the terms "e-government" or "electronic government."

prevent corruption. Yet e-government systems can deliver on their promises only if different offices and people are willing to share information and to do things differently.

### **Asia-Pacific experience**

Asia-Pacific governments have only recently begun to adopt e-government systems, and are still well behind the rates of adoption of many private businesses in the region. Reasons include higher costs of ICT introduction due to the scale of public organizations; the inertia of existing options and habits; paper trail required for approval processing; concerns about security; confidentiality of information; obsolete regulations and laws; lack of understanding and computer skills; concern by authoritarian regimes over increased information flow and citizen participation; difficulties of carrying out organizational change; and the nature of public sector financing and procurement practices. The last two of these will be discussed in more detail.

First, to introduce ICT effectively, the ways organizations do business need to change and the ways people do their jobs need to change too. Such organizational changes may be more difficult in the public sector than in the private sector.<sup>3</sup>

A typical sequence in an ICT project may start out by purchasing an off-the-shelf software package for, say, a new accounting or document management system. Then the agency discovers that the software does not support the way they currently do business. For example, the package may require inter- and intra-agency record sharing that is not presently happening. Current practice may call for a paper trail for approval processing, or paper form filing done over the counter, that the package won't support. Public agencies may have additional factors that a package doesn't support, such as complex regulations and laws. Public officials may also have a lack of understanding and computer skills, and thus not understand, for example, that a computer firewall can serve much the same purpose as a padlock on a file cabinet.

At that point there are two things they can do: They can change the way they do business to accommodate the software, which may mean taking some risks, and shaking up important peoples' roles and responsibilities. Or they can modify the software to fit the way they do business, which will slow down the project, introduce dangerous bugs into the system and make upgrading the software to the vendor's next release difficult, because the customizations will need to be torn apart and rewritten to fit with the new version. Private companies are more likely to take the first route, while public organizations more likely to take the second. Choosing the second route leads to delays, higher software costs and risks, and all too often a decision to abandon a project after large expenditures of time and money.<sup>4</sup>

A second reason for relatively slow ICT adoption by governments concerns the nature of public sector financing and procurement practices. To ensure accountability, government agencies need to go through a lengthy process of securing funds, seeking competitive tenders, and awarding contracts. This lengthy process leads to different

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<sup>3</sup> See Organization for Economic Cooperation and Development. "Hidden Threat to E-Government: Avoiding Large Government IT Failures" (Online). Available: <http://www.oecd.org/puma/Risk/ITfailuresE.pdf>.

<sup>4</sup> C. Koch, D. Slater and E. Baatz "The ABCs of ERP" (Online). Available: <[http://www.cio.com/forums/erp/edit/122299\\_erp\\_content.html#erp\\_fit](http://www.cio.com/forums/erp/edit/122299_erp_content.html#erp_fit)>.

problems. To prevent undue influence of any one official, many decisions along the way are made by committees, which can lead to an unclear focus as compromises are made. In addition, a result of the lengthy process is that when acquisitions are made, the technology has often moved far beyond where it was when the project was first conceived. Thus, governments often install outdated systems. They also pay excessive prices, since new products may have come to the market during the long tender review that can deliver the same ICT power for much less money. The difference between the outdated tender price and the market price is also an arbitrage opportunity for corrupt officials.

The above describes only some of the things that can go wrong with e-government applications in the region. Heeks has identified e-government failures stemming from these and other factors such as lack of vision and strategy, poor project/change management, dominance of politics and self interest, and lack of requisite competencies.<sup>5</sup>

Despite these factors leading to relatively slow adoption, Asia-Pacific governments are moving ahead, and there are already anecdotal claims of successful use of ICT systems in combating corruption. For example, the Republic of Korea Supreme Prosecutor's Office and the Seoul District Prosecutor's Office, established in 2000 computer crime investigation departments. Computer crime investigation teams were established in local prosecutor's offices nationwide. This is aimed at effectively addressing offenses that become more and more technological and tactical, and also at assisting investigation on corruption with modern computer techniques.<sup>6</sup>

In Pakistan, the entire tax department is being restructured, and ICT systems being introduced with the purpose of reducing contact between tax collectors and taxpayers, and thus opportunities for corruption.<sup>7</sup> The Philippines is undergoing a determined effort to catch tax dodgers using computer matching, following the appointment of a new Bureau of Internal Revenue (BIR) Chief that had pioneered the use of ICT in Customs in his previous post. A database holds details from tax returns and payments up to six years back, including company schedules of sales and supply purchases, real property transactions, tax credits, refunds granted, import entries, government incentives and procurement discounts paid. The system can match a company's declared sales with its purchases. Any firm that reports little sales despite big supply procurements will be detected. So far, 616 firms have been detected and sent notices to pay up. Many are distributors of pre-paid cards for cellular phones. The system pointed out discrepancies in the quarterly sales reported by the distributors, compared to cell phone companies own admissions of supply deliveries to them. There

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<sup>5</sup> R. Heeks, 2002. "eGovernment for development- causes of eGovernment success and failure: factor model", IDPM, University of Manchester, UK (Online). Available: <<http://www.egov4dev.org/causefactor.htm>>.

<sup>6</sup> K. Paek, "Combating Corruption: The Role of the Ministry of Justice and the Prosecutor's Office in Korea", paper presented at conference of Asia Pacific Forum on Combating Corruption, Seoul, Korea, December, 2000, in *Progress in the Fight Against Corruption in Asia and the Pacific*. Manila: ADB, 2001 (Online). Available: <[http://www.adb.org/Documents/Conference/Fight\\_Corruption/default.asp](http://www.adb.org/Documents/Conference/Fight_Corruption/default.asp)>

<sup>7</sup> K. Maqbool, "A Strategy For Combating Corruption In Pakistan", paper presented at conference of Asia Pacific Forum on Combating Corruption, Seoul, Korea, December, 2000, in *Progress in the Fight Against Corruption in Asia and the Pacific*. Manila: ADB, 2001 (Online). Available: <[http://www.adb.org/Documents/Conference/Fight\\_Corruption/default.asp](http://www.adb.org/Documents/Conference/Fight_Corruption/default.asp)>

were also cross checks with records of mobile phones, Internet access and landlines for which they were used. By tracing back the entire sales and supply link, the BIR could spot whoever in the chain had altered his books. Other than the 616, 20 exporters were caught claiming tax credits twice for the same transaction. This ICT-assisted program is crucial as the government addresses the drop in revenues from 19.4 percent of GDP in 1997 to 15.5 percent today.<sup>8</sup>

ICT can help reduce corruption even if the citizens are not directly using ICT. For example, the computer-aided Administration of Registration Department (CARD) is one of the major success stories of e-government in the Indian state of Andhra Pradesh. About 214 registration offices have been completely computerized since April 1998. Deeds are registered in one hour and other services like the issue of encumbrance certificates and valuation certificates are accomplished in 15 minutes. As of February 2000, about 700,000 documents had been registered under CARD. The opaqueness of property valuation in the past forced citizens to hire middlemen who used corrupt practices to obtain service. Time-consuming manual copying and indexing of documents, and storage in paper forms have all been replaced. There has also been a modest increase in revenue after factoring out the normal upward trend caused by a growing economy.<sup>9</sup>

Several Asian countries are introducing smart cards that help citizens get seamless health care service,<sup>10</sup> while reducing the need for corruption-prone cash payments to be made for service. For example, in Vietnam, ADB is working with the government to demonstrate the feasibility of introducing electronic, health insurance (E-HI) cards to facilitate the expansion of health insurance coverage in rural and poor communities. The Project will pilot the feasibility of the E-HI cards in one province. The project, through the introduction of E-HI card, will seek to achieve (i) provision of more appropriate health services for rural and poor families through more comprehensive patient and service reviews and by facilitating closer client and provider relationships; (ii) improved administrative efficiency by reducing the time for reimbursement and payment processing; and (iii) reduced fraudulent claims by providing more timely and accurate client information for providers.<sup>11</sup>

In the Philippines, the Department of Budget and Management (DBM) has established an online e-procurement system (<http://www.procurement-service.org/>) that allows public bidding for suppliers to meet government needs. The system has reportedly led to increased transparency in transactions, and is favorably regarded by suppliers<sup>12</sup>.

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<sup>8</sup> J. Bondoc, "BIR gives tax cheats chance to come clean" in *the Philippine Star*, 19 October 2002, p. 11.

<sup>9</sup> World Bank, *op. cit.* For an alternative view, M. Haque, 2002. "E-governance in India: its impacts on relations among citizens, politicians and public servants" in *International Review of Administrative Sciences*, Vol. 68, No. 2, pp. 231-250 argues that ICT has not shown any promising results.

<sup>10</sup> D. Osborne, "Lessons From Abroad", *GovExec.com*, (January 1, 2000) (Online). Available: <http://www.psggrp.com/index.html>.

<sup>11</sup> ADB, 2002. *Grant Assistance to Viet Nam for Supporting the Electronic Health Insurance Membership Card Project* (Manila: ADB). For more information, see <<http://www.adb.org/Documents/News/2002/nr2002174.asp>>

<sup>12</sup> "Philippines Pilot E-Procurement System", World Bank (Online). Available: <[http://www1.worldbank.org/publicsector/egov/philippines\\_eproc.htm](http://www1.worldbank.org/publicsector/egov/philippines_eproc.htm)>

In Thailand, ADB is working with the Asian Foundation to strengthen National Counter Corruption Commission (NCCC) and senate procedures for impeachment, to develop a strategic plan to help the Office of the NCCC better carry out the expanded mandate of the office under the new constitution, and to strengthen civil society's capacity for advocacy and monitoring accountability mechanisms<sup>13</sup>. Part of this support is to support a pilot project to computerize the task of identifying corruption abuses. At present, the NCCC must process paper forms and financial reports for thousands of government officials. The pilot system will allow the commission to collect and analyze information electronically, dramatically improving their ability to identify corrupt practices.

ADB is working to strengthen the capacity of the Inspectorate General (IG) of the Ministry of Settlements and Regional Infrastructure (MSRI) in Indonesia to combat fraud and corruption. One component of this work will be a server and a local area network with an "off-the-shelf" but secure database for organizing organizing data on investigations of allegations of fraud and corruption by MSRI-IG. A small model for internet-based procurement (e-procurement) is also planned that should include, as a minimum, a procurement bulletin board for MSRI. With the Government proposing to set up a National Public Procurement Office (NPPO) responsible for procurement policy and standards, the data contained in any MSRI procurement bulletin board should be capable of being uploaded to a national bulletin board operated by NPPO<sup>14</sup>.

In Kyrgyz Republic and Tajikistan, ADB is helping to develop a comprehensive and flexible technology plan for a customs clearance system and management information system, and migration plans to replace, reuse, or relocate existing assets and develop a model procedural manual for customs staff to use in daily operations involving ICT. To support information sharing, ADB is conducting a survey of databases and the level of computerization in each country, and, based on that designing a data exchange system taking national security needs into account. Also, ADB is helping to develop protocols for compiling and utilizing advanced electronic commercial manifest data, working in partnership with industry, while coordinating activities on data and intelligence gathering<sup>15</sup>.

Finally, in Seoul, Republic of Korea, the Online Procedures Enhancement for Civil Applications (OPEN) allows citizens to monitor applications for permits or approvals where corruption is most likely to occur, and to raise questions in the event any irregularities are detected. Examples of civil applications are: Building Permits and Inspections, Approval and Sanction of Entertainment Establishments & Song Bars, Decision and Change of Urban Development Plans.<sup>16</sup>

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<sup>13</sup> ADB, 2001. *Technical assistance to Thailand for strengthening accountability mechanisms* (Online). Available: <<http://www.adb.org/Documents/TARs/THA/R86-01.pdf>>

<sup>14</sup> ADB, 2002. *Technical assistance to Indonesia for strengthening the capacity of the Ministry of Settlements and Regional Infrastructure to combat fraud and corruption*. Manila: ADB (Online). Available: <[http://www.adb.org/Documents/TARs/INO/R90\\_02.pdf](http://www.adb.org/Documents/TARs/INO/R90_02.pdf)>

<sup>15</sup> ADB, 2002. *Proposed loans and technical assistance grants and a regional technical assistance grant regional trade facilitation and customs cooperation program (Kyrgyz Republic and Tajikistan)*. Manila: ADB (online). Available: <[http://www.adb.org/Documents/RRPS/KGZ/rrp\\_35498.pdf](http://www.adb.org/Documents/RRPS/KGZ/rrp_35498.pdf)>

<sup>16</sup> *Seoul Metropolitan Government: Anti-corruption procedures* (Online). Available: <http://english.metro.seoul.kr/government/policies/anti/civilapplications/index.cfm>

## Challenges

It is frequently assumed that the introduction of more advanced ICT reduces opportunities for corruption. The reality is more complex. While ICT does sometimes facilitate combating corruption, it can also have no effect, or even provide for new corruption opportunities, for many reasons.

First, the introduction of ICT skills often underpins managerial reforms by helping to better measure performance, to facilitate outsourcing and contestability of public functions, to reduce transaction costs, to better enforce rules, to reduce discretion, and to increase transparency. Yet computerization may also lead to an “upskilling” of corruption, providing new sources of corrupt income for ICT professionals, and removing opportunities from those without ICT skills. Secondly, with computer systems being regarded as all-powerful and omniscient, some staff members may lose confidence and cease their corrupt behavior. Yet corrupt, computer professionals will not be put off. Indeed, they may find that the computerized systems act to reduce competition, thereby increasing their corrupt income. The computerization of records often closes down access to some staff members but opens up access to others who operate the ICT systems. Depending on the relative integrity of these staff members, corruption may increase or decrease. Indeed, Heeks points out that officials may resist new ICT systems for fear of losing corrupt incomes. Yet, while ICT eliminates many opportunities for corruption for those who do not understand fully the new technology, it opens up new corruption vistas for those who understand the new systems well enough to manipulate them. In a sense, ICT permits an intergenerational shift in corruption and rent seeking.<sup>17</sup> In addition, data quality and the myth of computer omnipotence make some managers assume that ICT removes the opportunities for corruption. They may therefore fail to institute controls on computerized systems. And this last is probably the most dangerous tendency, for the lack of controls will be evident to those in a position to take advantage of it<sup>18</sup>.

Second, the ICT specialist and the “public manager” need to work together in implementing e-government systems for combating corruption. Most governments are working to combat corruption as part of a multi-faceted reform program, addressing issues such as inadequate financial resources, greater use of market mechanisms and results-based management, improving competitiveness for a globalized economy, and increasing citizen participation<sup>19</sup>. ICT improvements need to go hand-in hand with these other reforms, including business process re-engineering to ensure increased transparency of rules and procedures, and to reduce unnecessary discretion by government officials that could be abused. Governments need to share detailed information on budgets, plans and expenditure with civil society and the media. Applying advanced ICT without other reforms risks computerizing inefficiency and bad practices. Doing the wrong thing faster is not progress.

To address this challenge, ADB is setting up an ICT-based distance learning and information center to build human and institutional capacity in development-related

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<sup>17</sup> R. Heeks, 1998. “Information Systems for Public Management: Information Technology and Public Sector Corruption”, Working Paper No. 4, Manchester: IDPM-University of Manchester.

<sup>18</sup> Heeks, *Information Systems*, op. cit., p. 7.

<sup>19</sup> Cf. J. Pierre and B. G. Peters, 2000. *Governance, Politics and the State*. St. Martin’s Press, NY, pp. 50-69.

topics such as e-government, water resources, energy and trade among Asia-Pacific developing member countries. One aspect of the center will spotlight e-government building blocks (e.g. e-procurement, e-monitoring of permits and approvals, public financial management) with demonstration modules, legal and regulatory framework, steps toward business process re-engineering, and public-private sector partnerships (e.g., access venture capital through the Internet to encourage use of on-line services), all with examples of good practices from other developing countries.<sup>20</sup>

Finally, ICT advances, like other technological changes, can improve the productivity potential of government organizations. However, Olson points out that only the managers and staff of these organizations know the actual productivity improvement obtained. It is in the collective interest of the managers of these organizations that the productive potential of these advances be underestimated by their superiors. In such cases, organizations may receive more resources than they need that can in turn be used to increase the income or leisure of management or staff. This form of corruption was widely practiced in centrally planned economies.<sup>21</sup>

Corruption is rooted in the cultural, political, and economic circumstances of those involved. ICT does little to affect these root causes, and has a potential role, but one that is limited and forms only a part of a much larger picture. At the national level, one needs political will, ethical watchdog agencies, proper incentives for honest officials, and effective punishment for the corrupt ones.<sup>22</sup> At the agency level, combating corruption is most effective when ethical values are part of the core business of an organization, supporting other factors like leadership and customer service to maximize stakeholder interests.<sup>23</sup>

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<sup>20</sup> ADB, 2002. *Grant assistance for supporting the development of a business plan for a Center for Learning, Information, Communication, and Knowledge for Asia and the Pacific*. Manila: ADB. (Online). Available: < [http://www.adb.org/documents/others/click/r21\\_03.pdf](http://www.adb.org/documents/others/click/r21_03.pdf)>

<sup>21</sup> M. Olson, *Power and Prosperity: Outgrowing Communist and Capitalist Dictatorships*, (New York: Basic Books, 2000), pp. 145-6.

<sup>22</sup> J. S. T. Quah, "Accountability and Anticorruption Agencies in the Asia-Pacific Region" in ADB and OECD, 1999. *Combating Corruption in Asian and Pacific Economies*. Manila: ADB (Online). Available: <[http://www.adb.org/Documents/Conference/Combating\\_Corruption/default.asp?p=govpub](http://www.adb.org/Documents/Conference/Combating_Corruption/default.asp?p=govpub)>. pp. 101-124.

<sup>23</sup> P. Larmour and N. Wolanin, eds. *Corruption & Anti-corruption*, (Canberra: Asia Pacific Press, 2001), pp. xxii – xxiii.