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HOW-TO NOTES

Electronic Government Procurement (e-GP)

GAC in PROJECTS

IMPROVING DEVELOPMENT OUTCOMES

ELECTRONIC GOVERNMENT PROCUREMENT

The innovative use of technology has the potential to transform the way government does business. In particular, government's adoption of information and communications technology (ITC) can improve service delivery, reduce costs, enhance transparency and accountability, and accelerate the spread of ITC throughout the economy—benefitting both the competitiveness of the private sector and the pace of economic growth and development.

Within the broader concept of e-government, attention is focusing increasingly on the concept of e-government procurement, or e-GP, for two main reasons: first, government is typically the largest single purchaser in the national economy; and second, government's traditional procurement processes are highly vulnerable to fraud and corruption. Therefore, e-GP has a number of potential benefits.

Transparency and Accountability. By ensuring free and complete access to information about procurement opportunities, e-GP increases both participation (the number of firms that compete for government business) and accountability (in terms of openness and fairness in spending public funds). It also helps to ensure compliance with procurement laws and regulations, reduces the need for in-person contacts between government officials and businesses, and minimizes the risk of manipulation of procurement information and bid documents. In addition, it provides decision-makers, auditors, and other stakeholders with a complete and readily accessible database on public procurement, allowing improved monitoring to increase the performance and governance of public procurement systems. All of these benefits reduce the opportunities for fraud and corruption and increase the chances of detecting it when it occurs.

Efficiency and Effectiveness. e-GP reduces the cost of transactions and increases value for money. Typically, countries using e-GP report efficiency gains of about 20 percent as a result of reduced costs and lower prices. The cost savings come from less paperwork, streamlined procedures, and reduced costs for print media because online advertisements are much less expensive; and the price savings from a combination of price transparency, increased competition, and innovative procurement procedures, such as aggregated purchases and electronic reverse auctions. Businesses also enjoy savings from the elimination of the labor time and other costs associated with delivering paper documents to government offices, faster processing of purchase orders and invoices, and payments by direct deposit.

Development Benefits. Government's adoption of e-GP is likely to speed the development of e-commerce generally, encourage the participation of small and medium-sized enterprises (SMEs) in public procurement, promote the use of modern technology and the implementation of national technology infrastructure, and encourage the development of ITC knowledge and skills—all of which has a positive effect on overall growth and development.

Implementing e-GP

Government procurement can be divided functionally into two major categories: purchasing and tendering.

- *Purchasing* normally involves a large number of "off the shelf" items, simple commodities, and simple services, acquired in a competitive market, generally on the basis of prices. Purchasing normally accounts for 80-85 percent of procurement transactions, but only 15-20 percent of procurement value. The expertise required to manage this level of procurement is relatively elementary; with e-GP functionality, it could be carried out through the use of online purchase orders, requests for quotations, and other standard transactions. However, the technology applications—the development and maintenance of product catalogues, linkages between buyers and suppliers, and linkages between procurement, financial management, and other systems—add significantly to the challenges of implementation.
- *Tendering* involves custom-made items, complex goods, complex services, and prices that depend on the specifics of the tender. Tendering for higher-value procurement requires a higher level of expertise relating not only to the specifications of the tender, but also to the ongoing relationship (and performance management under the contract) with the winning bidder. However, the technical applications are far less complex than those required for purchasing, with an emphasis mostly on security and management rather than on transactions micro-processing.

The higher value of procurement by tendering, combined with the fact that the technology applications are simpler, has led many governments to adopt a phased approach to e-GP, beginning with e-tendering.

The Process. It is best to start by conducting a "readiness assessment" that focuses on the elements that are critical for successful implementation of e-GP. The results of the readiness assessment should then inform the development of a strategy and action plan for developing e-GP.

Key Factors in Implementing e-GP

It is not easy to realize the full potential of e-GP: it is not simply the application of a new technology, but a fundamental change in the way of doing business. The old ways of doing procurement have a long tradition, so efforts to introduce e-GP often encounter resistance (including from groups that may have benefited from the lack of transparency under the current system). In most cases, it is best to take an incremental approach, beginning with e-tendering; but even within that function, it is useful to phase in the individual elements of the tendering process, and to conduct pilot exercises in one (or a few) agencies before full scaling up. The following are important ingredients for success.

Government and Institutional Leadership. Government leadership defines and drives the vision of what is to be achieved. To operationalize this vision, the government will need to nominate a "lead agency" to manage the transition to e-GP. Normally the lead agency is the national procurement agency, which should have a mandate to coordinate the inputs from a wide range of participating state and non-state actors. In addition to a political mandate (ideally from the Cabinet), the lead implementing agency will also need to have (or acquire) a strong capacity for change management—going beyond the coordination of the technical aspects of the project to focus on the broader context of a fundamental reform of business processes and relationships.

Human Resource Management. The challenges of implementation—of change management—include the likelihood of resistance to new ways of doing business, combined with the prospect of at least some level of redundancy within the government's procurement profession. Therefore, it is essential to have a well-thought-out strategy for dealing with the human elements of the process. Communications, especially with the government employees who will be directly affected by this new way of doing business, will be critical. It will be important to consider how redundant procurement staff can be retrained and/or absorbed elsewhere in government, as well as what skills development will be needed for those who will manage the newer processes of e-GP.

Legislation, Regulation, and Policy. e-GP is best regarded not as a technology system, but as a business system whose technology applications need to be grounded in legislation and supported by an effective management framework. For this reason, the adoption of e-GP often occurs in the context of fundamental reforms of procurement policy and regulation.

Planning and Management. In addition to enhanced transparency and accountability, e-GP can provide procurement managers with complete and timely information that can lead to improved procurement—for example, increased competition because SMEs are encouraged to participate in tendering, the ability to compare unit costs across sectors and regions, and improved management of multiagency aggregation. It can also lead to improved auditing, especially of the low-value/high-volume purchases that are traditionally very difficult to audit. If these benefits are to be realized, however, they need to be part of a clear vision, a defined strategy, and a detailed implementation plan.

Infrastructure and Web Services. The usefulness of online technologies arises from the twin attributes of interoperability (determined by standards) and connectivity (through infrastructure and web service availability). For developing countries and remote communities, connectivity and related variables (bandwidth and reliability) can be the principle hurdle to e-GP. In some cases, these challenges can be overcome

by creative development of Internet sites (such as Internet cafes) or access through designated government offices (e.g., local post offices). For several reasons, it is also important to develop a single, consolidated national e-GP portal:[1]

- for economies of scale—to avoid the development, licensing, and maintenance costs of multiple (possibly hundreds) of agency-specific portals;
- to avoid the need for firms to conduct multiple searches across multiple web sites to identify possible bidding opportunities;
- to avoid the possibility of disparate standards and a lack of interoperability, which would constrain the realignment and raise the costs of consolidation at a later date; and
- to limit the demand for ITC skills, which tend to be rather scarce in most developing country governments.

Functionality and Standards. e-GP functionality comes in two main parts— for purchasing and for tendering. As noted above, the technical requirements for purchasing are relatively complex, while those for the tendering process are not. Technical standards represent one of the most important issues in e-GP development. Dealing with this issue is not easy, however, because the development of standards is in a constant state of tension between open standards and proprietary solutions. In this connection, appropriate government policies for e-GP will strengthen the broader roll-out of e-commerce throughout the economy. It is important to note that the need for common standards and coordination (including the development of a central e-GP portal) does not imply centralized business processes; the standards should be flexible enough to allow individual agencies to accommodate their own needs within the existing legislative and regulatory framework.

Private Sector Activation. All markets have both a buyers' side and a sellers' side. In implementing e-GP, the focus cannot be exclusively on the government's side. Indeed, the participation of the private sector cannot be taken for granted. Potential suppliers and bidders need to be convinced that the benefits to them will outweigh the investments they must make in getting up to speed with the requirements of e-GP. In the case of the low-value/high-volume market, the development of online catalogue services obviously needs to involve the sellers. In addition, larger-value single-contract bidders need to be ready and able to participate. For these reasons, it is vital to have a business awareness, consultation, and orientation program.

Business Models for e-GP. To support the development and operation of e-GP systems, governments have undertaken different business approaches, from complete in-house solutions to various types of third-party partnerships. Each is

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[1] Lower levels of government could also have their own e-GP portals, if there are appropriate vertical linkages.

associated with its own set of benefits and business issues, which directly affect the government and the suppliers, contractors, and consultants with whom it does business. The choice of business model depends essentially on the amount of risk and cost a government is willing to undertake when implementing e-GP. The real challenge lies in understanding that e-GP is an ongoing business operation that requires support throughout its entire life-cycle, from the initial business process of reengineering a manual process to an electronic one, to the development of an integrated procurement environment. The most crucial element for system success, therefore, is the business operation of the service, and not just its technical features. The business model and system approach should reflect the individual needs, capacity, and situation of the government concerned.

Outcomes and Lessons Learned

In the past few years, a number of governments around the world have launched and begun using e-GP. This section summarizes the lessons from these experiences.

e-Procurement in Brazil

Before 2004, in the State of Minas Gerais in Brazil—with about 20 million people in 853 municipalities—public procurement was based on paper, many acquisitions were carried out without a competitive procedure, and public procurement planning and management were difficult because of the lack of relevant data and information.

The Process. Beginning in 2004, Minas Gerais introduced e-procurement according to a comprehensive implementation strategy, gradually adding the following functionalities to the system:

- Implementation of the procurement management system SIAD, with mandatory use for registering all public procurements and interface to the budget and finance system.
- Standardization of procurement procedures and adoption of Federal Supply Classification.
- Implementation of price registration for framework contracts.
- Development of a data warehouse and use of data to implement procurement policies and planning and to monitor electronic procurement through indicators.
- Implementation and integration of the new e-GP system with other systems (financial management, taxpayer registration, tax collection, and stock and asset control).

The Benefits. With this e-GP system all procurement information and processes have been integrated into a single official electronic portal, eliminating duplication and making procurement data and information fully available and transparent to all stakeholders. The distribution of relevant procurement information to suppliers by

e-mail and SMS has resulted in increased competition. In addition, the e-GP system has contributed to increasing the use of competitive bidding procedures and has reduced direct contracting to 5 percent of all public procurement.

Planning of e-Procurement in Kenya

The Government of Kenya considers e-GP as a comprehensive program that is at the core of the transformation of public procurement. Accordingly, Kenya carried out a comprehensive planning phase for the adoption of e-GP, with the following results:

- Identification of the Public Procurement Oversight Authority as the lead agency;
- Political support at Cabinet level (Cabinet Committee on E-Government);
- Establishment of an e-GP task force (Project Management Board) comprising all key stakeholders; and
- Development of an e-GP strategy (analysis of public procurement in Kenya, functional overview of the proposed e-GP system, implementation plan, cost estimates).

Phased Approach. The implementation of e-GP in Kenya will start with an electronic portal for the disclosure of procurement information, followed by the possibility of downloading electronic documents; eventually the system will allow electronic procurement transactions. To this end, the proposed major implementation phases are (a) purchase order processing and vendor management, (b) contract management, and (c) business integration.

Success Factors and Challenges. The Government of Kenya has identified the following key success factors and challenges to be addressed as e-GP is adopted:

- *Key success factors*
  - Effective government leadership and management of implementation plan
  - Supplier awareness, training, and change management
  - e-GP readiness assessment
  - Transition from paper to electronic-based process
  - Legislative support
  - Demonstrate quick wins

- *Challenges*
  - Lack of supplier confidence in e-GP system
  - Limited legislation to support electronic transactions
  - Limited infrastructure and web services with limited access (e.g., by SMEs)
  - Lack of resources to develop, implement, and maintain the e-GP system
  - Integration with other systems

The Process. Kenya has established strong leadership and political support for the e-GP agenda, and in line with its strategy will implement e-GP awareness and capacity building programs, including change management. Legislation will be adjusted to accommodate the use of electronic means for public procurement. A tender website has been developed (www.tenders.go.ke), and contract awards are published on the website of the Public Procurement Oversight Authority (www.ppoa.go.ke).

e-Procurement in the Philippines

To enhance transparency and accessibility, monitoring of compliance and accountability, and competition and efficiency, the Philippines Government Procurement Reform Act of 2003 mandated that all agencies use the Philippine Government Electronic Procurement System (PhilGEPS).

Phased Approach. The introduction of PhilGEPS has been sequenced in the following five phases:

1. Electronic bulletin board, subscribers' and suppliers' registry, and electronic catalogue
2. Virtual store
3. Electronic charges and fees
4. Electronic payment
5. Electronic bidding

So far, only phase 1 is fully operational, and phase 2 is scheduled for completion in 2010. It is planned that all phases will be completed by 2012.

Results. Phase 1 of PhilGEPS resulted in the following outcomes:

●   Postings of opportunities and awards of contracts on the electronic bulletin board went up from 86,496 opportunities and 10,543 awards in 2005 to 222,149 opportunities and 34,580 awards in 2008. With this increased transparency, the public and civil society have much more information on how Government funds are being used through the procurement process.
●   Monitoring of compliance with the law is measured by the number of agencies that publish in PhilGEPS. About 86 percent of public purchasing agencies—national agencies, Government-controlled corporations, state universities and colleges, cities and municipalities—comply with the requirement to use PhilGEPS for the publication of relevant procurement information. Those that are not in compliance with the law are known and are subject to disciplinary action.
●   Competitiveness is encouraged because bidders who are registered in PhilGEPS receive e-mail notifications for contract opportunities in their area of expertise: in

2005 some 1,435 bidders downloaded 9,297 procurement notices, while in 2008 the numbers increased to 19,058 bidders who downloaded 91,270 notices.

- The quick economic impact of PhilGEPS can be measured by the procuring entities' savings on newspaper advertisement—some Php 517 million (about US$11 million) since 2001.

Additional Resources

The World Bank has been promoting the use of electronic means in country procurement systems for many years. However, the Bank can play a more proactive role and use its knowledge-sharing and lending instruments to help countries develop and adopt sustainable e-GP models. The challenge is to allocate and align the needed resources at a time when budgets are increasingly constrained.

Under the Heads of Procurement harmonization initiative of the multilateral development banks (MDBs), an e-GP Working Group, launched in 2002, has been running a fully harmonized e-GP agenda among the African Development Bank (AfDB), the Asian Development Bank (ADB), the Inter-American Development Bank (IADB), and the World Bank (WB). The MDB e-GP Working Group has developed a set of helpful e-GP guidance notes, which are available on the website listed below. The following representatives from the MDBs can provide more information on the Working Group and its work program:

- AfDB: Mr. Gabriel Maro, g.maro@afdb.org
- ADB: Mr. Yinguo Huang, yhuang@adb.org
- IADB: Mr. Tomas Campero, tcampero@iadb.org
- WB: Mr. Ashish Bhateja, abhateja@worldbank.org

In addition, the World Bank runs an e-GP learning series with several countries. The series is coordinated by WBI (Robert Hunja, rhunja@worldbank.org), CITPO (Samia Melhem, smelhem@worldbank.org), and OPCPR (Ashish Bhateja, abhateja@worldbank.org).

Reference Material/Online Links

- MDB e-GP Working Group website: www.mdbegp.org
- International MDB e-GP Conference: http://events.iadb.org/calendar/eventDetail.aspx?lang=en&id=1457
- eProcurement toolkit: www.etransform.org
- E-Procurement Forum of European Community: http://www.epractice.eu/community/eprocurement