

IMPLEMENTATION OF E-PROCUREMENT SYSTEM IN BRASIL

Carlos Henrique de Azevedo Moreira

Carlos Henrique de Azevedo Moreira, Engineer, is Director of Logistics of Ministry of Planning, Budget and Management. His research interests are in Information Systems for the Government, specially in electronic government, public procurement, and supply management.

ABSTRACTS

Nowadays Brazil is a country that makes intensive use of electronic purchasing tenders to meet the needs of the government. In 2009 about 80% of the total procurement was acquired by electronic purchasing. However, to achieve this mark it was necessary to go through several stages and make invest in new technology solutions, information systems and personnel training. The result is considered very important and may serve as a study model to other countries. This article presents a retrospective over the major decisions, solutions and milestones achieved over the last years, and an evaluation over the good practices.

INTRODUCTION

This article presents the use of electronic purchasing tenders by the Brazil's government, a case that can be a reference for other countries wishing to implement similar procedures.

Brazil is a federation, with a large territory and important variations in social conditions and infrastructure in general. It's public procurement and contracting laws (Act 8666) covers the whole federation, but its application is heavily influenced by local market conditions, by the skills of public managers and by the availability of infrastructure for communication.

Over the past few years its procurement information systems were enhanced and e-government actions were undertaken simultaneously to increase transparency and enhance competition, and bringing more adequate prices and greater social control. It was a gradual process which attempted to maximize the utilization of existing services and share best practices adopted by some excellence public agency.

The results show significant savings over the traditional procurement modes, with 80% of all competitive purchasing procedures are being performed by e-procurement processes. Some actions still ongoing

aim to improve and expand the use of new mode and complementary approaches are presented as promising to continue to evolve both quantitatively and qualitatively.

It is hoped that the analysis of the construction and deployment of the electronic procurement in Brazil will contribute with important information for countries in similar conditions.

METHODS

This article adopted the method of descriptive case study, with emphasis on qualitative aspects, which seeks to show the sequence of events that led to the current stage of Electronic Bidding System. We also attempted to highlight the successes, difficulties and lessons learned that can be obtained from this case.

DESCRIPTION OF THE PROCESS OF IMPLEMENTATION OF ELECTRONIC SHOPPING

Previous scenario (as was)

In the early nineties, the activities of general services performed by the federal government followed the precepts of Decree - Law 200, published in 1967, and procurement and public contracting were regulated by Decree - Law 2300, published in 1986, which came in several aspects, gradually, becoming of no practical effect.

In 1993 a new law was published revising and creating new criteria for government purchasing and contracting, Act 8666. In it were imposed various forms of bids and reviewed the principles for engagement by dispensing and non-requirement for bidding. It was also introduced other innovations such as the determination of the prior existence of budget resources for procurement and contracting, setting limits for each type of bidding and the preparation of basic design and project executive in contracting works and services among others.

The mechanisms of control and monitoring of purchases and the tax assessment of the bidding process, issuance of permits and numbering supply at the time, were performed manually or mechanically, generating diversity of activities and large volumes of paper for filling. As an example we can cite the requirement for proof of legal qualification, technical skills, economic and financial burdens placed on providers for participating in bidding contests, which led the authorities with each having its own register of

suppliers, requiring very high levels of hand workforce to update and save documents with a risk of fraud, involving the selection of suppliers and reducing the scope of their participation in bidding contests against the restricted use of resources for information technology and other means of communication available.

The Purchase System (as is)

This scenario of Public Administration at the beginning of the last decade prompted the Government to formulate guidelines central substantiated in legal instruments, and also from an entrepreneurial vision focused on the policy of modernization and computerization of activities and administrative processes of the main segments within Federal Government, starting the implementation of tools and services that are based on intensive use of information technology resources, which could allow, above all, the practice of new and safer ways of managing and controlling public spending, especially expenditure costing (materials and services).

In the search for solutions to the difficulties that had accumulated in the organs of Government, published in 1994, Decree No. 1094, establishing as a management tool for Federal Public Administration the Integrated System of Administration and General Services - SIASG, which constituted a solution to enable automated control actions and management of government procurement, considered overly bureaucratic and in several instances of questionable efficiency. The SIASG, whose focus is geared to the management of procurement, was originally composed by following modules:

- System Registration Unified Suppliers - SICAF
- System of prices - SIREP
- Catalog of Materials - CATMAT
- Cataloging Services - CATSERV
- System for Electronic Disclosure Shopping - SIDEC
- System Contract Management - SICON.

Purchases Portal of the Federal Government (as is)

The deployment of SIASG enabling a significant improvement in the management of spending on cost and streamlining of procedures, however showed itself still insufficient to meet all expectations and effectively meet the entire Federal Administration. It was then established in 1998 the Purchasing Portal of the Federal Government - Comprasnet (www.comprasnet.gov.br), fully integrated with SIASG, with the goal of advancing the improvement of governmental actions and also by the need to give greater amplitude and transparency to the purchasing and contracting of the federal government.

Earlier this site was proposed to the dissemination of warnings and notices of various forms of auctions, recorded in SIASG through SIDEAC and give transparencies to contracts entered into by direct public administration, local government and foundations. It also included features that allowed users to access the relevant legislation, manuals, and statistics on purchases (Informative Comprasnet), the registration status of suppliers and other related publications, such as the Handbook of Public Works. Thus, through the Comprasnet, suppliers and society in general have access to information of interest, processed and made available in a systematized and updated daily.

Federal Government Electronic shopping (as is)

Early in the next decade, in mid-2000, Brazilian government began a series of efforts to expand the transparency achieved in previous years and consequently increase the competitiveness and social control over public spending. In this new context was created the first electronic procurement mechanism and began a crusade to demonstrate the relevance, feasibility and benefits of the new modality bidding. It then ran the urgent need for training of public servants and suppliers, in addition to seeking improvements in infrastructure for communication and data transmission over the Internet in the country as a whole, object of the action of other ministries and the market itself.

The electronic procurement mechanism created was a Reverse Auction, in Portuguese “Pregão Eletrônico”, that brought important innovations such as: successive bids until obtaining the lowest price, inversion of the competitive phase and the phase of enabling, lower term to realize the public session and without limit value.

The Reverse Auction could be realized in presential form, with de providers in the same room, or in virtual form via Internet. The presential form was easily used and the results appeared quickly, which was important to validate the solution. Six months later, the first Electronic Auction was realized, and with it was broken an important rule: The Presential Paradigm.

In the next years the presential reverse auction grew quickly, but the electronic form took more time; it became more used and mandatory only in 2005. At the same time, two other related processes were improved. The first was to make possible to register a price for a limited time (System of Prices) and the second to make emergency procurement or small procurement in a simplified electronic mode (Electronic Quotation).

After this, the Reverse Auction grew in use and in versatility. It could be used to deal with discount bids over reference prices and to apply

automatically special treatment for small and medium firms, according to Act n°123/2006.

An important point to note is that the entire cost of the systems (development and production) was paid by the Public Administration considering the hypothesis that the economy in the prices obtained in the purchasing and contracting would cover the necessary investments, which was confirmed with time.

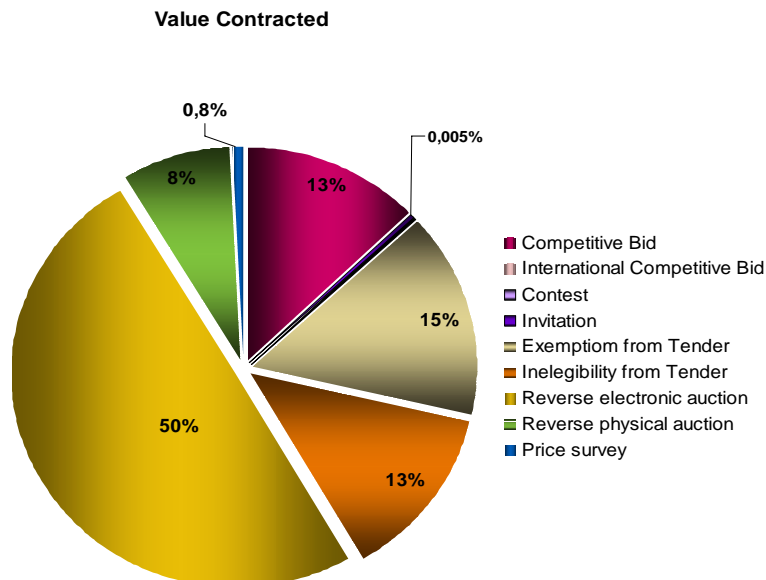
RESULTS

The following set of graphics and data relative to 2008, taken from Integrated System of General Services Administration datawarehouse, presents the measure of purchasing and contracting operations in Brazil and demonstrates the degree of electronic methods use.

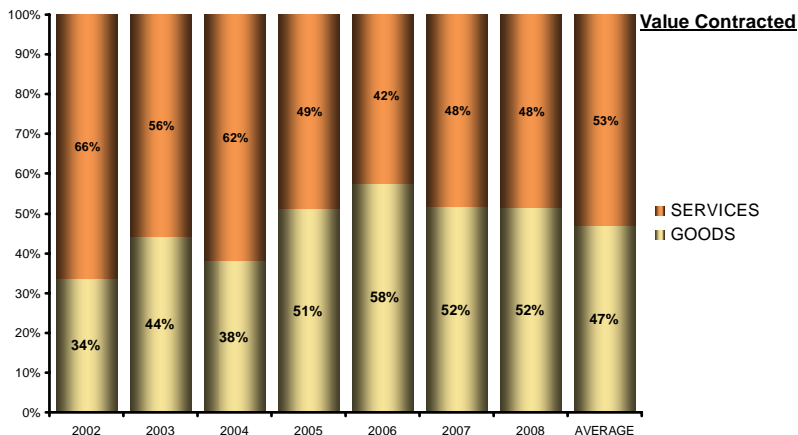
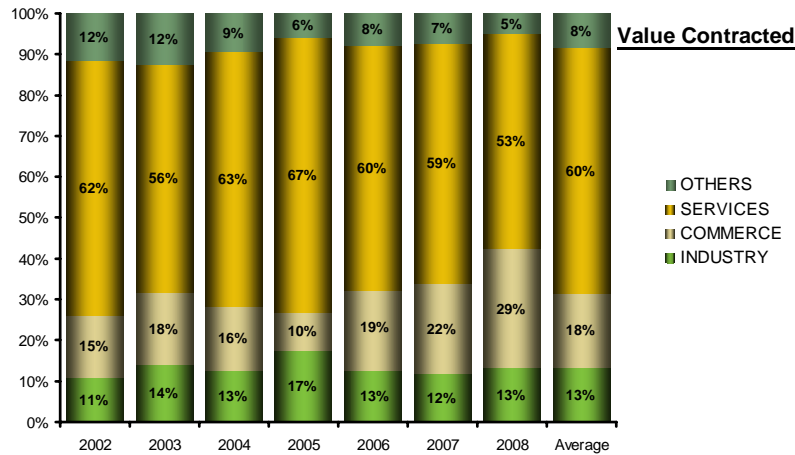
First, some numbers to characterize the procurement system size:

Aspect	N°
Registered Provider	335.000
Registered Users	66.000
Simultaneous users	22.000
Downloads/year	115,000
Bvers Officcers	4.000
Goods	195.000

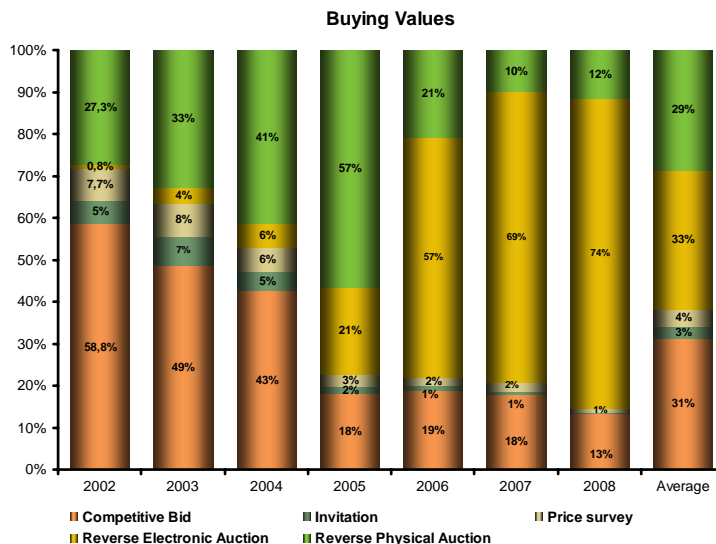
Percentual of processes contracted, by type of tender – 2008



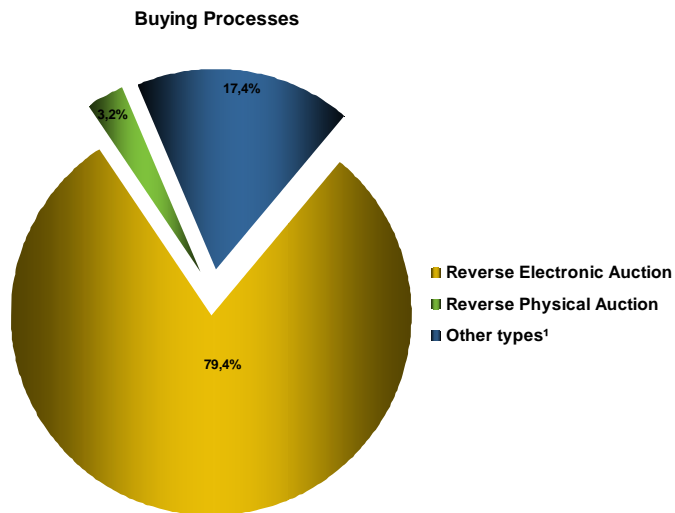
In the graphic above, we see that in 2008, fifty percent of the contracted value was done by electronic reverse auction. The next two graphics present the percentage of contracted value by economic sectors and by goods and service distribution, demonstrating its breadth of application.



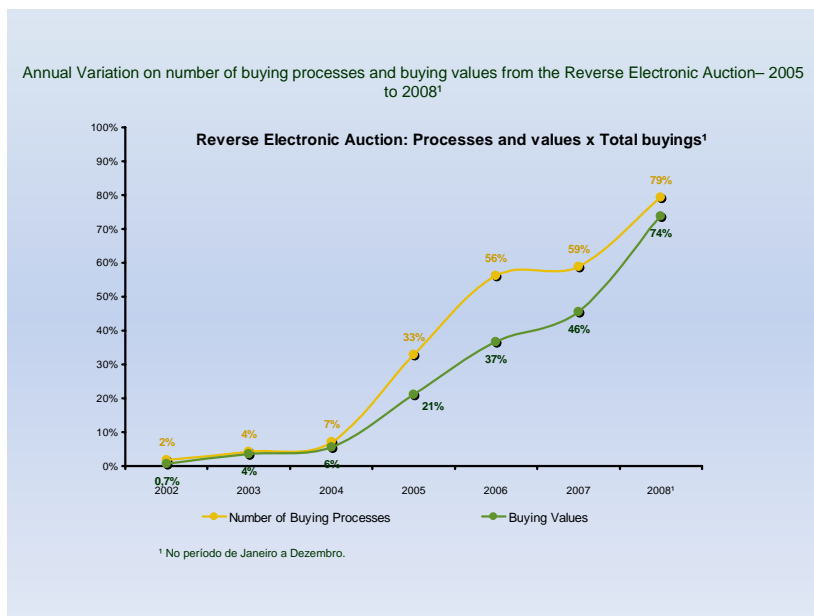
In next graphic we can see the evolution of electronic reverse auction since 2002.



In next two graphic we can see the percentage of physical and electronic auction versus others procurement types.



In next graphic we can see the growth over the years.



OECD Indicators

In the last years, indicators from OECD/DAC Methodology for Assessing Procurement System were applied as a reference to measure the evolution of the public procurement in Brazil. The main results were:

Indicador	Medido	Comprasnet 2006	Comprasnet 2007	Comprasnet 2008	Limiar satisfatório
(5) Método de aquisição utilizado	Nº de processos que utilizem método menos competitivo do que o processo recomendado por lei para o valor estimado contrato	0%	0%	0%	1% ou menos
(6) Contratação direta	percentual de contratos (por número e por valor) adjudicados com base em uma única fonte	24,72% (quantidade) 36,73% (valor)	25,80% (quantidade) 40,05% (valor)	26,56% (quantidade) 37,81% (valor)	10% ou menos do número de contratos e 5% ou menos do valor total dos contratos
(7) Processos cancelados	Percentual das licitações anuladas antes da assinatura do contrato	1,14%	0,90%	0,87%	5% ou menos
(8) Número de recursos	proporção (em %) entre o número de recursos interpostos e o número de propostas	13,80%	30,10%	22,01%	Não menos de 10% e não mais de 50%
(9) Tempo de resposta aos recursos	número de dias entre a interposição e a resposta final aos recursos	13 dias	18 dias	17 dias	21 dias ou menos
(10) Resultados dos recursos	percentual dos contratos com recomendação de adjudicação modificada devido a um recurso	Não avaliado	Não avaliado	Não avaliado	5% ou menos
(11) Pagamentos atrasados	percentual de pagamentos efetuados com mais de 45 dias de atraso	Não avaliado	Não avaliado	Não avaliado	10% ou menos
(12) Acréscimo no valor do contrato	percentual de acréscimos feitos ao valor final dos contratos devidos a modificações e emendas	32,30% (valor)	8,06% (valor)	6,27% (valor) ²	15% ou menos (calculados como a média referente à amostra das transações) ³

(*) It is important to register that in this article we focused only in federal sphere, but there are important results to be explored about the reflex of this initiative in the other government spheres.

Training of public servants

It was realized hundreds of seminars, workshops, courses and others activities for the dissemination of the needed information and abilities. In special, there are regular events, like Week of Financial, Budgets and Procurement Administration, that trained about three thousand servants annually, and several courses to form knowledge multipliers.

FUTURE PROSPECTS (how it will be)

Like all public processes, Brazil's procurement are permanently in evolution and there are several projects that aim to improve it further in a defined time table.

Short-term Prospects

A Virtual Public Session is on development for the other tender modalities, to bring them more transparency and competitiveness. Inspired by the model of the Electronic Auction, named "Pregão Eletrônico", the Virtual Public Session will allow social control through continuous monitoring via Internet and will automatically record all events occurring in this session.

In the regulatory field, the Federal Government launched the Normative Instruction nº4/2008, which organizes the process of contracting information technology services, with the goal of providing better governance and standardize the management of IT services.

Also, the Normative Instruction nº1/2010 (Green Procurement) was created to establish the environmental sustainability criteria in procurement of materials, services and works directly for the Federal Public Administration, autonomous agencies and foundations. The regulation is already being divulged in seminars and courses nationwide.

Besides those new regulations, Brazil is planning to reform its public procurement general law, with a bill of law that is current subject for the final approval in the Congress. The highlights are the following points:

- Possibility of reversing the phases of checking documents for judging the commercial offers for all procurement modes;

- Reverse Auction will be mandatory for lowest price;
- Reverse Auction will be enabled for contracting works under U\$3.4 millions;
- The use of IT will be allowed in all types of Tenders.

There is still a relevant initiative, complementary to the Purchasing System, which focuses on the transference of financial resources from the Federal Government to other spheres of government (states and municipalities) and the third sector, in order to execute projects of common interest. This system is being implemented and will be integrated with the Purchasing System to bring transparency to procurement and contracting of these other spheres, when using Union resources.

Medium Term Prospects

In medium terms, there is a promising project to establish a central purchasing unit for common needs for goods and services to the entire Federal Administration, with a criterion of materials standardization and scale, and using the Registration Price System. Moreover, the scope of the e-procurement system is being expanded to also cover the annual planning phase and internal phase of the bidding process; the latter will be responsible for the automatization, formatting and instruction of the entire bidding process, and their bureaucracy.

Still in the same horizon, there are projects already in conformity assessment designed to modernize the oldest parts of SIASG, with a migration process to web platform. In this situation, there are the System Registration Unified Suppliers, the Material's Catalog, and the System for Electronic Disclosure Shopping.

Long-term Prospects

The gains brought by the improvements in transparency and competitiveness in public procurement processes were very important, but reached a practical limit. The search for better solutions, for better specifications, for standardization of main materials and services, and a systematic improved pricing in works contractions, present themselves as the most promising lines for improvement in the future. In this direction, there are several experiences and studies being developed, with encouraging results.

STRATEGIES FOR IMPLEMENTATION

The adoption of a new procurement system is a long change process. By interfering directly in the implementation of public policies, it requires a special care not to cause disruptions or delays in the supply line of the public sector.

In the Brazilian case, some strategies have been adopted aimed to ensure and increase further gains, since failures would generate hard difficulties for the implementation conclusion. As a rule, the strategies were based adopting some restrictions intended to reduce the size and the complexity of the scope in the first trials, and thereby demonstrate its efficiency, enabling the government to gain more political and institutional support, and gradually expand its application to new kinds of objects and users.

This strategy was chosen also because it represents a simplified solution, with faster implementation and dissemination, which will be revised and supplemented in successive revisions. The main ones were:

- Physical versus electronic sections: first the bidding culture was changed, and then, the cultural presential paradigm was shattered;
- Short List: an initial list restricted the e-procurement tender to a few common used and less complex objects;
- Basic system functionality versus sophisticated and integrated ones;
- Optional versus mandatory use.

The demonstration effect of the results decisively influenced the widespread of the use of the new e-procurement system, and the boost in its use in the Federal Government, allows its dissemination to other spheres of government, from capital cities to countryside cities and small states, and now, for various private entities.

LESSONS LEARNED

The essential point to start the process review of the purchasing and contracting public procurement systems is to have a good vision of where you are going, which will lead naturally to an adequate management model and a framework of laws and regulations. However, its universalisation and representative gains are aspects that are strongly dependent of the available instruments (information systems) and the investment in servant capacity and communication technology.

Moreover, it is important to highlight that any initiative should take into account the development current stage of the country, and allow it to evolve incrementally. But independently of the development stage of the process, there are some fundamental principles that must be followed:

- Starting: is a virtuous process that improves with use

- It is an incremental process: improvement cycles simplify deployment and produce results that can support the initiative
- It is not a PANACEA: it does not solve all problems
- The difference is made by people: the main issue!

REFERENCES

- Act nº 123 (2006). [On-line]. Available at www.comprasnet.gov.br. [Retrieved march 30, 2010]
- Act nº 8666 (1993). [On-line]. Available at www.comprasnet.gov.br. [Retrieved march 30, 2010]
- Act nº 10.520 (2002). [On-line]. Available at www.comprasnet.gov.br. [Retrieved march 30, 2010]
- Decree - Law nº 2300 (1986). [On-line]. Available at www.comprasnet.gov.br. [Retrieved march, 30, 2010]
- Decree nº 1094 (1994). [On-line]. Available at www.comprasnet.gov.br. [Retrieved march, 30, 2010]
- Decree nº 5450 (2005). [On-line]. Available at www.comprasnet.gov.br. [Retrieved march, 30, 2010] Decree - Law 200 (1967). [On-line]. Available at www.comprasnet.gov.br. [Retrieved march, 30, 2010]
- Normative Instruction nº 1 (2010). [On-line]. Available at www.comprasnet.gov.br. [Retrieved march, 30, 2010]
- Normative Instruction nº 4 (2008). [On-line]. Available at www.comprasnet.gov.br. [Retrieved march, 30, 2010]
- OECD/DAC Methodology for Assessing Procurement System. [On-line]. Available at <http://www.oecd.org/dataoecd/50/33/45181522.pdf>. [Retrieved jun,04, 2010]
- Santana, J. E., (2009). “Pregão Presencial e Eletrônico.”, Belo Horizonte, Fórum
- Waslawick, R.S., (2008). “Metodologia de Pesquisa para Ciência da Computação.”, Rio de Janeiro, Elsevier