

Preface

The following list summarizes the topics covered in each chapter of this book. Although, it should be noted that each chapter has its own introduction and set of chapter objectives, methods, research findings, and conclusions.

Chapter 1, “The ‘Mental Revolution’ of the Public Procurement Specialist: Achieving Transformative Impacts within the Context of e-Procurement,” covers an original perspective of the key role of procurement specialists for success in e-procurement implementation. The soft skills in accordance with Resourced-Based Theory are discussed as a cornerstone of significant change in the nature and dynamics of the procurement process. Traditionally, public procurement relied on standardized decision-making structures and has been an administrative area satiated with politics. E-procurement platforms can easily amplify this bureaucratization by supposedly shifting the responsibility for the decision from the specialists to the virtual environment. Digital procurement platforms provide the capacity for network-collaborative-type procurement. The nine core challenges for overcoming the barriers in e-procurement initiatives are described hand-in-hand with technical and political aspects. The core challenges are a fragmented understanding of technological dynamics, implementation, and spotty legislative support; technology’s “halo” effect, lack of technological “know how” and financial constraints and waste; incompatibility of platforms or managerial/philosophical strategies; interrupted (punctuated) implementation; or the need for maintaining dedication and learning beyond first stage adoption; internal customer satisfaction and maverick purchasing; resistance to technology and cooptation; complexity, uncertainty, ambiguity, and network-driven contractual instability; biased data or “dead end” collection; and software developers are not “public” ready, oriented, or reasonably priced. A theoretical case study on the decision-making process within digital procurement processes leads to the conclusions that specialists accept adoption of digital platform, decides to use only the features of the system, which are not in conflicts with their goals, or decides to contact the software developers to customized particular features. Finally, the recommendations for adoption of e-procurement systems are to redefine the roles of procurement specialists and enable the reinterpretation of their professional perspectives and assume personally entrepreneur-type approaches in using the digital platform.

Chapter 2, “Public Sector Transformation: Privatization in Saudi Arabia,” focuses on the historical context and rationale for privatization in Saudi Arabia. The first issue explores an economic and political situation in Saudi Arabia. The background of the Saudi Arabian governmental system presents a number of established agencies implementing economic reforms such as the Supreme Economic Council (SEC), the Supreme Council for Petroleum and Minerals (SCPM), the General Commission for Tourism and Antiquities (GCTA), the Saudi Arabian General Investment Authority (SAGIA), the Food and Drugs Authority (FDA), and the Council of Saudi Chambers of Commerce and Industry. The results of

the extended literature survey leads to the general recommendation of the privatization policy. Namely, shortening the entire privatization process establishes independent joint ventures and sets up appropriate regulatory authorities. The objectives of privatization strategy can be summarized in the following crucial points: to elevate the competence of the national economy (through subjecting the public sector projects to market forces) and increase its competitive ability (through creating proper investment environment, i.e. capital market); to face the challenges in regional and international competition, and to encourage private sector investment and effective participation in the national economy through privatizing public enterprises and services and operating those on commercial bases (this will ultimately provide the opportunity to diversify the Saudi economic base away from the dependence on oil); to increase partnership of citizens in productive government assets through using a general subscription system, as a so-called Initial Public Offering “IPO”; to encourage national and foreign capital for local investments through partial owning of productive projects; to continue to develop the capital market to give a chance to increase local and foreign investments; to provide additional channels to attract savings; to increase the Saudi employment opportunities, optimize the use of national labor, and ensure the continued equitable increase of individual income; to provide all necessary services for citizens and investors at suitable time; to place regulatory measures (i.e., good quality services with reasonable costs, through establishing regulatory authority to regulate the service tariff and monitor the services); to rationalize government spending and reduce the government budget by providing opportunity to the private sector to finance, operate, and maintain some of the service sectors that they are capable of doing; to increase government revenues from the returns of privatization to be transferred to the private sector, i.e. from granting concessions or sale of government properties. The future challenges are focused on examine the cost effectiveness of used procurement systems and evaluation of the pros and cons of opening up key sectors to foreign investors, especially with respect to religious and cultural activities.

Chapter 3, “Public Sector Transformation and the Design of Public Policies for Electronic Commerce and the New Economy: Tax and Antitrust Policies,” summarizes the appropriate models and techniques of economic analysis for understanding how the public sector absorbs the philosophy and tools of the New Economy. The crucial factor of success is human capital. The chapter deals with optimal design of tax policy in electronic markets and the guidelines of antitrust policy in electronic markets. Consequences to mainstream economics are observed firstly. Subsequently, the case study on taxation of electronic commerce is explained. The dominant position and barriers to entry to the New Economy according to the Schumpeterian vision are discussed. New Economy leads to both a high concentration of production and to a wide range of strategies used by enterprises (protection of intellectual property, price differentiation, bundling, etc.) as well as greater cooperation between them. Hence, antitrust authorities should reformulate the traditional analysis of barriers to entry to take into account that the benefits associated with entry in the New Economy markets are high when it is possible to replace the leader and dominate the market. Research findings pass noteworthy results in taxation of e-commerce. As is mentioned in future research directions, the growth strategy is essential for companies operating on the supply side in economies of scale, scope economies, economies of experience, and network economies on the demand side. The huge challenge is the reevaluation and measurement of business strategies in the public sector transformation process.

Chapter 4, “Persuading for Change: The Impact of Culture on the Principles of Authority and Social Proof,” offers insight to persuasive technologies as a tool to change our behavior or attitude without using coercion or deception. The brand new meaning is especially evident in special markets like Web 2.0, e-business, and mobile domain. The need of understanding information systems in cultural context

plays a significant role in increasing competitive advantages. Comparison of Korean and Finland societies are population for hypothesis verification. The Korean society represents Confucianism through five human relationships and the development of Neo-Confucianism. The hypothesis on the principles of authority in the Korean group and principles of social proof in the Finnish group are tested. The six principles of persuasion are reciprocity, commitment and consistency, social proof, authority, liking, and scarcity. The methodology is built on positive approach. The selected samples of Korean and Finnish students were asked six questions to understand the role of social proof and authority differing in a cultural context. Research findings show that designing information systems culture should be taken into account. The results can help managers to identify new challenges raised in persuasive systems development. In particular, the utility persuasive technology features, e.g. for internet public procurement, culture should be considered carefully. The future research directions aim to analyze how to cope with differing cultural issues within behavioral patterns in the light of Information Systems Development.

Chapter 5, “Technology Advancement and E-Procurement in the US,” is focused on the analysis of modernization of government and administration and the relationship between technology and e-procurement systems. Development of technologies and economic overview is discussed firstly. The e-procurement is a relatively new phenomenon. Perhaps the greatest challenge is that the adoption of e-procurement has spurred a new wave of corruption. The growth of private sector suppliers of technology is emphasized. Current state of the art of implementation of e-procurement reflexes customer effectiveness by providing multimedia capabilities such as sound, image, text, and other visual tools that aid to develop customer learning and assist in the product selection process, with the goal of optimally fulfilling customer demands. E-procurement is difficult to implement, and sustainability of effective e-purchasing systems is equally as challenging. Among all the components of e-procurement, e-purchasing requires the largest number of legal provisions. The publication of rules, deadlines, data, and information, the announcement of a tender, data about previous tenders, bidders, and winners should be made accessible to the marketplace and related public sphere. Nevertheless, the reduction of errors is a crucial part for the cost reduction and economic rationality. Nowadays, customized challenges and the intellectual prowess of public procurement managers are needed. The systems tend to outsource technological expertise. Further directions require established methods and techniques of optimizing e-procurement connectivity between administration, government agencies, businesses, and the public. Another research area to be addressed is related to public policy considerations. The swift advancement of technology creates a need for better understanding regarding the rights of purchasers and suppliers when dealing in a highly communicative environment.

Chapter 6, “Rationale behind Implementation of New Electronic Tools for e-Public Procurement,” is focused on the effective implementation of new electronic tools for e-public procurement in public sector organizations. The current acceleration of the e-government is driven by an effort to achieve the highest and best use of the decision-making process. Political (more effective cooperation of the public and private sectors), social (potential exploitation of knowledge and experience of experts working within the private sector), economic (envisaged long-term cost savings, quality improvements in any given area, better services, and more flexibility when providing them, stimulation of electronic tools development by the private sector), and public administration reasons (after implementation of the electronic administration, it will be possible, based on the increased labor productivity, to reduce the number of public sector employees in a socially sensitive way) are taken into account in transformation processes. EU legislation as a direction indicator is discussed with emphasis on the military sector. Pan-European Public e-Procurement On-Line Project (PEPPOL) according to European Commission

is explored and standardization, codification, and classification in the e-government are surveyed. Case studies in Germany and the Czech Republic are analyzed. Further, the evaluation criteria of new electronic tools are stipulated and the mathematical model of decision-making process within the public administration is articulated. The basis model's principles are automatic methods of variant evaluation and component criteria based on individual views of expert team members. The key step in the future direction of procurement service evolvement is rationalization of procedures. Future research directions follow practical e-public procurement and electronization of purchase processes—online use of online means of mathematical decision-making support, use of mathematical modeling methods enabling not just accelerated but also more objective decision-making especially when selecting the most convenient offer, use of modern information and communication technologies, significant reduction of potentially negative effects of subjective factors in such award procedures when provisional bids of suppliers and bidders are being evaluated, savings in transaction cost because of decreased administrative labor intensity of public procurement, increased price transparency of public contracts, and using a standardized description of purchased commodities to acquire data for statistical evaluation of public contract market including the commodity aspect and to perform more efficient audits, and monitoring of the public procurement market.

Chapter 7, “Electronic Procurement in the Construction Industry,” covers the current state, trends, and future directions of e-procurement in the construction industry in public and private sector. The basic rules and directions in the hierarchy of World Procurement Law, European Procurement Law, and UK Procurement Law are discussed. Indisputable role plays the use of electronic auctions as negotiation mechanism for construction procurement. There had been a substantial number of government led initiatives to improve the uptake of e-procurement in the UK, commencing with the Modernizing Government White Paper. The use of electronic auctions in construction proved controversial, yet was adopted by some building clients. Quantitative analyses of e-procurement implementation, drivers, and barriers in the UK are explored. The important fields concerning convenience of archiving completed work, increasing quality through increased accuracy and efficiency, and reduction in time and procurement staff are assigned as the crucial drive factors. The UK government emphasizes the e-business as a priority growth area and actively support them. The two most important drivers for UK construction organizations (both public and private) are “Process, Transaction, and Administration Cost Savings” and “Convenience of Archiving Completed Work.” It was revealed that the cost savings from adoption of e-procurement has been widely documented. The new challenge is cloud computing and advancement in IT technologies resulting in reducing expenditures and increasing effectiveness. There is significant pressure developing from the rapid advancement of large-scale construction companies and the rate of development of technology. Current research into BIM indicates the possibility of BIM enabled e-procurement becoming mainstream within the next decade. This will further drive down procurement costs, but the cost effectiveness of BIM remains a concern. The UNCITRAL Working Group on the Model Law on Electronic Signatures needs to address some of the security, proof of intent, validity, and confidentiality-related issues identified as barriers for e-procurement in this chapter.

Chapter 8, “EU Public Procurement Remedies Regimes: The Nordic Experience,” deals with the Nordic statutory EU-based remedy regimes. EU commitment does not differ between EU Member states, Sweden, Denmark, Finland, and non-member states, Norway and Iceland. The EU regime on public procurement law is effective in all member states and relevant guidelines and directives are extended to non-member states. The legislation on procurement remedies is EU/EEA compliant. The general overview of the domain covers the UNITRAL 2011 Model Law on Public Procurement for state legislation.

On the basis of free trade transparency in relation to laws, regulations, and procurement practice, enable international competition on deliveries to states and local authorities and reduce corruption and other unfair business practice. The World Bank (IBRD) sets guidelines (2011) on Procurement Loans and IDA Credits as the primary remedy a withdrawal of financial resources from the recipient. A great number of cases deal with procurement remedies for the European Court of Justice. Nordic law can be classified as a separate legal branch different from common law and civil law codifications, such as Germany, France, and the Mediterranean countries. Historically, the Nordic countries have cooperated on major legislative projects in private law. Norwegian public procurement law consists of a short 1999-07-16 No 69 framework statute. Danish EU procurement law on procedures is the black letter procurement directive with some supplementary regulations outside the scope of the directives themselves (sub-threshold and B-services). Remedies are addressed in the 2010-05-12 No. 492 Act on remedies. The Finish legislation on procurement consists of two comprehensive statutes on public and utilities procurement—with provisions on remedies in the statute on public procurement 30.3.2007/348 (with later amendments). Selected 2010/2012 law reform issues are discussed in the chapter. The future research directions are an econometric factor analysis on the efficiency of implementation of the changes in law environment.

Chapter 9, “Conditions Determining the Success of Public E-Procurement,” is focused on e-procurement as a component of supply chain management. E-procurement, as a subset of supply chain management, contributes to the controlling, simplifying, and automating of the purchase of goods and services from several suppliers. The main tasks of e-procurement concern support of basic transactions like requisitioning, ordering, and payment, facilitating processes like supplier selection, value analysis, and performance evaluation, enhancing advanced applications such as cross-functional and cross-organizational co-operation and integration; and assisting in relationship management. E-procurement can be considered an “evolutionary shift” from poor planning, inconsistent quality of goods and services. Legislative and regulatory framework is discussed and notable reforms (shifting authority and responsibility to individual government departments and their accounting officers, compulsory expenditure planning and budgetary control across all operations in each government department, application of the principle of value for money for performance budgeting, whereby managers strive to achieve more than what the budget and costs specified, decentralized procurement systems which are less prescriptive, thereby according greater managerial responsibility, minimizing risk through increased internal control within government departments, monitoring mechanisms to identify unauthorized, wasteful, and irregular expenditure as determined by regulations) are explored. Research findings lead to significant recommendations in the implementation process. Government has to absorb sensitivity to local socio-economic imbalances within the context of a global economy. Institutionalization of a code of ethics for all e-procurement users within government, underpinned by regular education and training supporting e-procurement implementation management has to be taking into account. The regulatory framework that addresses national policy imperatives should lead to coherent and comprehensively resourced e-procurement. Human resources have to be developed adequately to operate within an e-procurement environment. Technological capacity has to be developed enough for manage e-procurement managing. Local and international participation should be managed in developing policies and systems process to support e-procurement. Investigating public sector incentives covers statistical sample for modeling e-procurement compatibility with suppliers. Future research directions tend to “enterprise-wide” initiative within government gives the overlapping and competing power interests. Provision of government technology supports structures to assist businesses in providing trading portals and exchange services.

Research into horizontal processes can integrate the supplier-buyer interface, rather than only sharing critical inventory information with suppliers.

Chapter 10, “Public Procurement in the Czech Republic: Focused on Regional Development and E-Procurement,” covers relations between public procurement, regional development, and e-procurement. The transformation and advancement of e-procurement is explored on case study focused on the Czech Republic. The huge steps were forced by EU directives in 2008. Preliminary research shows a close relationship between location of contractor and supplier headquarters. Research findings show public procurement as an important source of funds for stimulation of endogenous development based on SMEs. As results of empirical research public procurement is not a suitable tool for the reduction of regional disparities. The significant ratio of public procurement on GDP ensures important position as a source of funds for the financing of regional development, and there is an increasing interest in e-procurement procedures in the Czech Republic. E-procurement may increase competition for public procurement because spatial barriers are reduced. E-procurement may substantially reduce administration costs and speed up the public procurement procedures. There are various forms of e-procurement tools, including e-tendering, e-auctions, or transmission of invoices online. It is noteworthy that e-auctions may represent an interesting tool to reduce not only transaction costs but also the final price of public procurement contracts. Future research directions are whether differences between anticipated and real prices of public procurement can be modeled with strong correlation. Thus, the research question is whether public procurement tenders reduce the real prices may be answered. Subsequently, the factors, which explain the differences, may be surveyed. The role of e-auctions may be considered in this regard.

Chapter 11, “The Architecture of the EU Structural Instruments in Romania: Public Administration Bodies’ Functioning, Econometric Modeling, and E-Solutions,” is aimed to EU cohesion policy with special emphasis on seven ongoing operational programs successfully negotiated by Romania. The three following aspects are analyzed: the use of structural funds via the operational programs at country/regional level represents the most important tool for sustainable development and socio-economic progress; the proposed models for analyzing the absorption of these funds are highly original and might constitute a precise tool for further programming exercises and assessment of their efficiency and effectiveness; the proposed models could be used for performing the same type of analysis for the other seven NUTS2 development regions in Romania and, further on, a global model at country level could be used. The question on effectiveness and transparency of public funds distribution via Electronic Public Procurement-Acquisition System is explored. Emphasis is also placed on innovative tools used for submitting, evaluating, and monitoring projects, emphasizing the role of Management Authorities, as public bodies, for managing this process. For each operational program, an econometric model GARCH-like has been developed and used at the level of NUTS2. Operational program architecture is discussed and six priority axes are elaborated. In Romania, the Electronic Public Procurement System (SEAP) allows performing operations such as transmission of awarding documentation and of explanatory notes to be validated by the National Authority for the Regulation and Monitoring of Public Procurement, Publication of Contract Notices, carrying out the initial phase of electronic bidding, and performing the entire procurement procedure online, publication of contract award notices. A key point of interest in this phase of the implementation of operational programs in Romania is to understand how absorption is ensured as a prerequisite for the N+3/N+2 rule compliance in the short run but also as a pre-requisite for ensuring the expected impact in the medium and long run. For performing the analysis, an Autoregressive Conditional Heteroskedasticity (ARCH) model has been developed and generalized as GARCH. Finally, research findings express that online tools cannot support big steps forward when it comes to absorption

if they are not complemented by strong monitoring arrangements for incentivizing projects to spend and report regularly, administrative measures to allow the MA and IB to process reimbursements faster, favoring projects which are resorting to simple implementation procedures and therefore can spend faster.

Chapter 12, “Black Economic Empowerment, ICT, and Preferential Public Procurement in South Africa,” examines government policy using procurement in conjunction with constitutional right to equality. The Black Economic Empowerment policy provides preferences for Historically Disadvantaged Individuals and small business in the procurement decision-making process. The survey is conducted in accordance with Preferential Public Procurement Framework Act (Act 5 of 2000) and the role of ICT is discussed. South Africa and the role of procurement during apartheid are explored. The focus of public procurement is on construction and the mainlining of infrastructure and services delivering. The preferential procurement system in South Africa requires that the contracts must be awarded to the tenderer who scores the highest points in terms of the preference system according to the Procurement Act. Government support e-procurement as the process of electronically purchasing the goods and services needed for an organization’s operation in South Africa. The purpose is to maintain the advantages of e-governance concerning cost effectiveness, transparency, curbing corruption, improving access to information, improving efficiency and the ability to reach wider section of citizens. The challenges of the delivery of e-government services in Southern Africa are a lack of ICT skills, limited public access to Internet and other ICT technologies, and the know-how to operate them efficiently. From the international perspective, the implications for future research directions are free trade measures for preferential procurement systems, including the regulations. Public procurement in South Africa is used as a policy instrument for socio-economic transformation, which completely differs from other countries.

Chapter 13, “Public Sector Transformation in Malaysia: Improving Local Governance and Accountability,” discusses various public sector reformation programs in Malaysia initiated with the focus on ensuring good governance and better accountability of public agencies. The research problem is challenges faced by local government that has impact on governance of local authorities. The overview of local government is surveyed in Malaysia. Government transformation programs were introduced, such as the use of the Key Performance Indicators system in 2005. The more outcome-oriented approach Government Transformation Program is in force since 2009. Short-term and long-term priorities combine Six National Key Result Areas program. For measuring management, compliance was elaborated in the accountability index, and for improvement in service delivery, the Star Rating System for Local Authorities concerning 354 indicators was derived. Stakeholder participation and consensus-oriented decision-making has been undertaken in the Local Agenda 21 program. Essential criticism concerning public sector leadership is the lack of rudimental principles of public service. The government faces the ineffectiveness in terms of funds, staff capacities, office facilities, and IT infrastructure. The prevailing part of the work is done manually. Future research directions concerning the research agenda on the methods of incorporate stakeholder participation in the decision-making process of local Malaysian council. Other relevant research issues are covered.

Enjoy reading this book.

Nataša Pomazalová
University of Defense, Czech Republic