Policy Recommendations for Electronic Public Procurement

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Abstract: The role played by governmental institutions for accelerating the diffusion of electronic public procurement (e-PP) is analyzed in this paper. Such analysis is interesting for institutions encouraging the diffusion of e-Government because they are not objective third party intermediaries instead they are part of the government. The paper is written based on an embedded case study carried out to enquire the challenges faced by the Danish public sector in the diffusion of e-procurement. The actions taken by the ministry of science, technology and innovation in Denmark are analyzed under the following sections; knowledge building, knowledge deployment, subsidy, mobilization, standard setting and innovation directive. The analysis yields six conjectures and it shows that as public administration is politically managed, the Danish government seeks mainly to influence and not regulate the supply and demand sides. A regulatory action may be misinterpreted as a move to alter power structures within the public administration.

Keywords: e-procurement, e-Government, public sector, diffusion, policy, inter-organizational systems and institutions.

1. Introduction

e-Government as a guiding concept has gained prominence in the last few years in most countries around the world. This does not mean that there is a consensus about what it is. On the contrary there are several competing definitions of e-Government. Zulfiqar et al. (2001) provide a summary of e-Government definitions. Researchers participating in the first Scandinavian workshop on e-Government held at Ørebro, Sweden in February 2004 and in the e-Government workshop at the London School of Economics, March 2004 addressed the topic of providing a definition of e-Government. The discussions did not converge instead they resulted in broadly interpretable notions such as "we do not know what it is yet" (Taran 2003) and "there is nothing as such as e-Government; it is the diffusion of contemporary IT in the public sector we study". However most agree that electronic public procurement (e-PP) is a central theme in e-Government, which is the attention of this paper. In particular we are interested in the repertoire of mechanisms applied by policy makers when seeking to further, control or change the diffusion trajectory of e-PP.

E-PP may be positioned within the broad e-Government research area using a two guiding dimensions as in the framework proposed by Marche and McNiven (2003). To consider the impact of the internet in government, in one axis, Marche and McNiven contrast *e-Government* versus *e-Governance* and in the other *citizen centric* versus *organization centric*. e-PP implementation requires government to automate procurement activities both vertically and horizontally. e-PP is implemented mainly to enhance efficiency in operations. Hence, it is identified as an *organization centric* activity. The public sector procures a large variety of goods and services from businesses (G2B) to carry out its day to day activities. e-PP is identified as an activity critical for the functioning of *(e)-government*. In figure one e-PP is positioned within the e-Government research area.

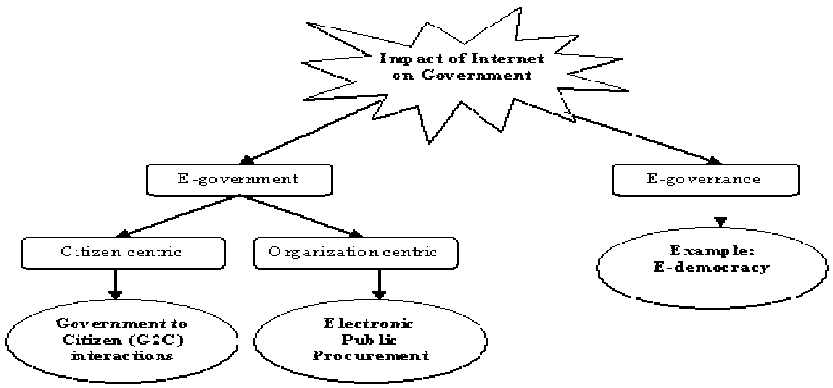

Figure 1: Impact of the Internet on government (Marche and McNiven 2003 Adapted)

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The rationalization of e-procurement functionality holds enormous promise. Denmark, a country with around 5.5 million population, procures goods and services for app. 100 billion DKK annually (app. 15 billion USD) [www.doip.dk]. A report by KPMG consulting (2000) identifies 8 billion worth of goods and services of the 100 billion immediately suitable for e-procurement. The list of goods identified in the report as suitable for e-procurement is found in figure two. Market research reports show that businesses via e-procurement can save between 10% and 50% (Peria 2003). The savings are hypothesized to be derived mainly from better sourcing decisions and reduced administrative costs (Ageshin 2001), but several studies show that the most significant percentage of savings obtained from e-procurement arises from better sourcing decisions and not from reduced administrative costs (Baker 1999). The public sector characterized by high purchasing volume, maverick buying and the lack of transparency stands to benefit significantly from e-procurement. The private sector driven by the desire to maintain competitive advantage and by the need to maintain profitability has taken rapid strides in using e-procurement (Krysiak et al. 2003). E-procurement in the public sector is being implemented worldwide and much money is spent to build up and implement e-procurement solutions. Yet we know surprisingly little about how government engages itself in furthering public e-procurement, let alone what lessons can be learned from their involvement.

State govt.	Regional govt.	Local govt.
Travel and Hotels Office supplies Books Office equipment IT Furniture Provisions	Medicine Hospital supplies Office supplies	Office supplies Provisions Books Material for education Ironmongery Fuel

Figure 2: List of commodities suitable for e-Procurement; Heneriksen et al. (2004) translation Used

Based on anecdotal data and relevant scientific knowledge (e.g. Inter-Organizational Systems adoption work), one can hypothesize that the implementation of e-PP would be quite challenging. Here is a sample of challenges likely to be encountered while implementing e-PP; first, traditionally suppliers have resisted joining the Electronic Data Interchange (EDI) network. e-PP just as EDI is an inter-organizational system. To engage in e-procurement, suppliers have to invest resources for preparing and hosting electronic catalogues. The question therefore arises; would suppliers be willing to invest and join in e-PP? Second, government aims to centrally negotiate frame agreements in order to get volume discounts. The negotiated agreements would be posted in e-PP infrastructure. End users are able to utilize the agreements quite easily by logging into the e-PP infrastructure from their desktop computer. The challenge associated with such then begets the next question; would buyers be willing to let go of their autonomy and utilize centrally negotiated agreements? Third, government has traditionally been supportive of small and medium sized enterprises (SME). A move towards centrally negotiating frame agreements denotes a shift in policy because SME's lack competitiveness as against their large sized counterparts while competing for government business. How then would local governments react to such shift? A government implementing e-procurement has to effectively deal with such challenges in order to benefit from e-procurement.

E-procurement in this paper is regarded an innovation. As per the institutional point of view, society comprised of institutions modulates the diffusion of innovation and gets reformed as innovations are diffused. Institution as per King et al. (1994) is "any standing social entity that exerts influence and regulation over other social entities". An innovation need not just be an object but could also be an idea or a practice (Rogers 1995). The role played by governmental institutions has been the focus in most diffusion of innovation (DOI) research. Damsgaard and Lyytinen (2001) differently analyze the role played by industry associations in the diffusion of EDI. Speilman (2002) looks at the role played by profit oriented multi national enterprise in the diffusion of agricultural technologies.

In the studies mentioned above, the entity exerting influence or regulation more often than not is a governing third party. The actions of industry associations, ministerial bodies and technology standards organizations affect others more than they affect self. The scenario however is different in the e-Government context because entity that exerts influence and regulation and entity exerted upon more often than not are part of the same organization. Usually one or more ministerial bodies in a nation devise measures to catalyze the diffusion of e-PP. The measures are directed towards all entities working in the public sector. Measures taken by a governmental institution to catalyze the diffusion of e-PP has not yet been analyzed.

Many institutions are involved in the diffusion of e-PP. A list of institutions involved in the diffusion of e-PP is provided in figure three. The focus in this paper is on the role played by policy makers in

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catalyzing the diffusion of e-PP. Institutional intervention framework proposed by King et al. (1994) is used to analyze measures taken to catalyze the diffusion of e-PP. The framework has two dimensions which are *supply push* and *demand pull* on the X axis and *influence* and *regulation* on the Y axis. An organization can intervene to facilitate the diffusion of e-PP through the following measures;

- knowledge building
- knowledge deployment
- subsidy
- mobilization
- standard setting and
- innovation directive

Efforts taken by the ministry of science, technology and innovation to encourage the diffusion of e-PP in Denmark are analyzed in this paper under the six above mentioned measures. A conjecture is derived for each analysis. The six conjectures that resulted are presented as policy recommendations for the diffusion of e-PP. The recommendations that result are generic in nature. They are valid not just for Denmark but for any nation engaged in the implementation of e-PP.

Institutions involved in the diffusion of electronic public procurement

i) The World Bank, Inter American Development Bank and the Asian Development Bank have formed a workgroup to provide guidance in implementing e-procurement to mainly developing countries [www.mdb-edp.org].

ii) The European Union has been actively persuading its member nations to implement e-procurement [www.simap.eu.int].

iii) Private owned businesses when involved in hosting e-government procurement infrastructure actively market their products and services

iv) The role of consultants in informing the public sector about savings that can potentially be obtained via e-procurement can in no way be ignored (KPMG 2000) and

v) In some countries, a part of the government such as the ministry of finance in the Singaporean government (Zulfiqar et al. 2001) is self driven towards the diffusion of e-procurement.

vi) Solution providers such as PeopleSoft (2001) and IBM have taken special interests in informing the public sector about e-government's potential

Figure 3: Institutions involved in the diffusion of e-procurement in the public sector

The research methodology adopted to collect data about the diffusion of e-procurement in the Danish public sector is explained next. Then, e-procurement scenario in Denmark is explained. Further details about King et al. (1994) institutional intervention framework is provided in the following section. Measures taken by the ministry of science, technology and innovation, Denmark are analyzed within the framework's province then. An overall perspective on the paper is provided in the final section.

2. Research methodology

This paper results from a single embedded case study (Eisenhardt 1989; Yin 1994). The study was embarked upon during August 2001 and it runs for duration of three years. The following are the central objectives of the study;

- to provide rich descriptive data on the challenges faced in the diffusion of e-procurement and
- to identify actors involved and define their involvement in the diffusion of e-procurement.

Explorative case study design is adopted for answering the research questions. The study is guided primarily by IOS adoption literature. The Danish nation is chosen as the embedded unit of analysis. Stakeholders/subunits involved in the diffusion of e-PP are identified using snow balling technique (Moriarty and Bateson 1982). The technique has its roots in institutional sociology where effort is made to define *"organizational field"* (DiMaggio and Powell 1983). The author learned about network of stakeholders involved in the diffusion of e-PP as he did his research. Thus, the research sample is known only after the study is completed and not a priori. Such technique is commonly used in multi-level IOS diffusion studies (e.g. (Damsgaard and Lyytinen 1998) and (Reimers et al. 2004)).

Primary data for the study was collected using semi-structured interviews. Thirty three stakeholders were enquired in five month period. The stakeholders are of the following types; buyer (professional), buyer (end user), technology provider, seller (decision maker), e-procurement coordinator (in the private sector), national

procurement agency, policy maker and regional government association. A page long interview guide was e-mailed to the interviewees before the enquiry. The questions posed during the interviews were informed by a detailed literature review and secondary research about organizations enquired. Interviews were audio recorded and transcribed upon obtaining interviewee's permission. All stakeholder types were in principle enquired about the same issues; their involvement and their perception of others involvement in e-PP. Questions posed during interviews are open ended with few exceptions. When some interviewees were simply too long winded, a few well specified questions are posed. During interviews, the author sought information on other stakeholders involved in the diffusion of e-PP. An interview lasted on an averaged for about 75 minutes. Secondary data was collected from the following sources; consultant reports, national statistics, newspaper reports and Internet home pages.

3. e-Procurement in the Danish Public Sector

In terms of population Denmark accounts for 1.4 percent of Europe. The public sector plays an important role in the Danish economy. One third of the workforce is employed in the public sector [www.denmark.dk]. The government's expenditure amounts to around 25% of the GDP. Danish per Capita GDP is one of the highest at $29,700 USD [www.usa-dk.org]. In the 2002 year, Global Corruption Report (Lamsdorff 2002) ranks Denmark as the second least corrupt country. It is a welfare state with the notion of collectiveness prevalent. For instance, Denmark was one of the few founding members in developing the world's first mobile system (Nordic Mobile Telephone system) with roaming, which then evolved to GSM [www.sintef.no].

The Danish public sector administration is tri layered. The three layers are i) municipality (Kommune) ii) county (Amt) and iii) the state (ministry). There are 275 municipalities, 14 counties and 18 ministries. The local bodies account for around 50% of the nation's expenditure. They are to large extent autonomous as local government taxes account for 33% of the nation's tax yield. Local bodies are selected by the people and do not as such serve the state administration.

Denmark is an early mover in implementing e-procurement in the public sector. Singapore, Australia and some states in the United States were ahead of Denmark in implementing e-procurement. Australia with its Transigo initiative in 1995 is probably the first country to have embarked on e-procurement (Coulthard and Castleman 2001). The ministry of science, technology and innovation through open competition selected a private owned electronic marketplace as the infrastructure for public procurement in 2001. The e-marketplace, Gatetrade, is equally owned by four large Danish companies; Maersk Data (sea transport), Tele Denmark (incumbent tele operator), Danske Bank (largest Danish bank) and Post Denmark (Danish PTT). The Danish government has not financially invested directly in Gatetrade. Gatetrade's revenue stems from transaction fees it charges its customers for documents exchanged via its infrastructure. It has added a portfolio of value added services such as IT and business consulting. Gatetrade is an open e-market that is used by both the public and the private sectors. It has been operational since Jan. 2002 [www.gatetrade.com].

Those supporting Gatetrade's selection reason as follows; first, the state by channeling its purchase through Gatetrade will encourage the diffusion of e-commerce in the Danish society. Second, the state by accumulating purchasing volume can negotiate better frame agreements and thus enhance its operational efficiency. SKI (national procurement agency) has been negotiating frame agreements for the Danish state for over a decade. SKI negotiated agreements when made available in Gatetrade can be accessed and utilized by all governmental organizations with much ease. Third, administrative costs will go down by the enhanced use of e-commerce. Fourth, interoperability can be enhanced when all governmental organizations and sellers adopt Gatetrade as the standard trading infrastructure (Anonymous; Kiærbye).

By early 2004, the Danish public sector however has not channeled via Gatetrade as much of its procurement as envisioned. Problems for Gatetrade are aggregated in that its four large owners are yet to fully utilize the e-market. Moreover, hope that the Danish business community would extensively trade via e-market has not materialized. Gatetrade has declared a loss of 32 million DKK (app. 5 million USD) for the 2003 year as against 44.2 million DKK (app. 7 million USD) for the pervious year. The owners however have declared their firm support via investing 160 million DKK (app. 27 million USD) in the initiative. They invested 60 million DKK (app. 10 million USD) as early as July 2003 (Anonymous 2003a). Gatetrade during early 2004 declared that trade via its infrastructure has quadrupled during 2003 (Anonymous 2004b). The director Steen Gade expects Gatetrade to break

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even around the 2007-2008 period (Anonymous 2003b). The Danish state, Gatetrade's owners and the Danish business community in general account for 40, 30 and 30 percentage of trade conducted via Gatetrade (Anonymous 2004b).

Several other initiatives are underway with which public sector organizations are able to conduct e-procurement. Kommune Data's (KMD) web purchasing module is an option widely chosen by local governmental organizations. KMD was formed by the national association of local authorities and the association of county councils in 1972 to serve local governmental organization's IT needs. KMD promises seamless integration between its financial system and the web-purchasing module [www.kmd.dk]. Kubus is an innovative software development firm that focuses on the contract management aspects of e-procurement. It won a national prestigious e-business prize for the 2002 and 2003 years (Anonymous 2003e) for its trade builder system. A small number of municipalities are committed towards adopting Kubus [www.kubus.dk] solutions.

This paper focuses on the uptake of e-procurement in the Danish public sector. Specifically efforts of those who encourage the diffusion of e-procurement are analyzed. King et al.'s (1994) institutional intervention framework is adopted in this paper. Damsgaard and Lyytinen (2001) have shown the framework's potential through analyzing intermediating organizations' role in the diffusion of EDI. A point that requires mentioning in this regard is that those encouraging the diffusion of e-procurement are very much a part of the public sector that they administer and not an intermediary. The implications of such are discussed in the forthcoming sections. The dimensions of institutional intervention as defined by King et al.'s (1994) are introduced next. Specific actions taken by those encouraging Gatetrade are analyzed then.

4. The dimensions of institutional intervention

King et al. (1994) in their institutional intervention framework define the dimensions within which specific actions taken by an institution for encouraging the diffusion of innovation can be analyzed. The Y-axis of the framework is marked by *regulation* and *influence.* "*Regulation* by institutions is the indirect or direct intervention of behavior those under the institution's influence, with the specific objective of modifying the behavior through sanction or other affirmative means" (King et al. 1994). The context within which regulatory and influencing actions than an institution undertakes is captured by *supply push* and *demand pull* variables in the X axis. There is both supply and demand sides when discussing the diffusion of any innovation. An institution can choose to influence or regulate either the demand side or the supply side or both via specific actions. The dimensions of institutional intervention are depicted in figure four.

	Supply push	Demand pull
Influence	*Knowledge building* *Knowledge deployment* *Standard setting*	*Mobilization*
Regulation		*Innovation directive*

Figure 4: Institutional intervention in Denmark

Public sector organizations world wide are in the process of implementing e-procurement. So far the e-procurement subject just as other e-Government subjects has been researched in a limited manner. Quite a lot of research done on e-procurement is anecdotal in nature (Coulthard and Castleman 2001; Heneriksen et al. 2004). However, formal research methods are increasingly being adopted. So far, case study research seems to have been the dominant research approach (Ramanathan 2004; Tonkin 2001; Zulfiqar et al. 2001). Statistical studies however are being done (Anderson et al. 2003). The area under study is complex for diffusion is usually researched at a national level with embedded units of analysis.

5. Analyzing measures taken to encourage the diffusion of e-procurement

The following measures identified in King et al. (1994) are used to analyze the efforts of those encouraging the diffusion of e-procurement: knowledge building, knowledge deployment, subsidy, mobilization, standard setting and innovation directive. Each measure is first described in general terms and then efforts taken by the Danish government are analyzed. The measures are positioned within King et al. (1994) institutional intervention framework in figure four. A conjecture derived from the analysis is provided as policy recommendation. The recommendations are valid not only for Denmark but also for other nations engaged in the implementation of e-PP.

Knowledge building: As the private sector has tried and tested e-procurement since late 90's there is not need for funding basic technological

research in the e-procurement case. Government however can play an important role in encouraging the use of e-procurement technologies in the public sector. The ministry of science, technology and innovation realizing e-procurement's potential in the public sector has selected Gatetrade, a private e-market, as the standard for public procurement. It could however have adopted a different strategy such as investing in a custom developed e-procurement solution for the public sector as Singapore [www.gebiz.sg] and Germany [www.e-vergabe.de] have done.

The Danish effort is certainly internationally acclaimed as the model for private-public partnership (Anonymous 2003d; Calway 2003). The ministry has been quite successful in encouraging private companies to invest in developing an e-market for the public sector. Gatetrade owners have so far invested 160 million DKK (app. 28 million USD) in developing the infrastructure. The e-market technology while advanced is incompatible with financial systems installed in a significant percent of government organizations. This incompatibility seems a critical reason behind resistance towards procuring via Gatetrade. It is said that a significant percent of savings from e-procurement is obtained from reduced administrative costs. Trade related data has to be manually entered when financial system is incompatible with the e-procurement module.

The ministry of science, technology and innovation has not adequately engaged local organizations and regions while selecting Gatetrade. The ministry proactively selected Gatetrade attempting to push the diffusion of e-procurement. Local and regional organizations that resist cite that they should have been consulted while selecting national e-procurement infrastructure

> *Policy recommendation one: A part of the government has to take proactive efforts for encouraging the diffusion of e-procurement in the public sector. In the process however, it has to adequately involve all segments of public administration while deciding upon the trading infrastructure.*

Knowledge deployment: Institution's role in nurturing the development of infrastructure and skills required for the adoption and the utilization of an innovation is discussed in this section. Infrastructure required for the utilization of e-procurement includes computers and a reliable internet connection. The digital task force that comprises employees from several Danish governmental organizations mentions in its e-Government strategy document (Anonymous 2004a) that IT infrastructure in the Danish public sector is well advanced. The public sector employees use e-mail, internet and computers extensively in their everyday operations. Employees engaged in e-procurement however have to learn using the systems functionality and get accustomed to the system's graphical user interface. The Danish government by choosing private/independently managed solution providers has limited its involvement in educating employees about solutions on offer. Solution providers such as Gatetrade, KMD and Kubus train their customers either for free or for a charge.

> *Policy recommendation two: A government's involvement in educating employees is minimized when the development and the hosting of e-procurement solutions are outsourced.*

Subsidy: Government through subsidies can encourage the supply side to invest in the development of an innovation and can minimize uncertainty perceived by the demand side while deciding on adopting an innovation. Subsidies play an important role in minimizing threshold perceived by decision makers on both the supply and demand sides to act towards the development and deployment of innovations (Granovetter 1978). In networked innovations such as the Internet and telephones, subsidies can be crucial for attracting a critical mass of users (Oliver et al. 1985). E-procurement is a networked innovation because adequate participation from both buyers and suppliers is required for sustainable trading activity to occur via a technology standard.

The Danish government has not provided financial subsidies to supply side organizations such as Gatetrade, Kubus and KMD. Businesses have invested in the development of e-procurement infrastructure hoping to profit from government's large purchasing volume. The Danish government through its outsourcing strategy shares subsidizing responsibilities with the infrastructure providers for attracting demand side participation. Gatetrade fully subsidized the use of its infrastructure to seven pilot organizations for the first six months of its inception. Up until now suppliers that have negotiated frame agreements with SKI can host their catalogues for free in Gatetrade subsidized by the Danish government.

> *Policy recommendation three: Government via outsourcing the development and hosting of e-procurement solutions can share subsidizing responsibilities with private investors. Given the networked nature of e-procurement, it is recommended that subsidies be provided to both the supply side and the demand side for*

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attracting a critical mass of users and participation.

Mobilization: Efforts taken by institutions in informing user population about an innovation is discussed under mobilization. Mobilization efforts usually propagate the benefits of adopting an innovation. A population is informed via various modes such as seminars, conferences, publications and workshops.

The ministry of science, technology and innovation, local government association (Kommune Landsforeningen) and regional government association (Amts råd foreningen) have prepared reports and seminars to inform governmental organizations the benefits of using e-procurement. The message appears to have been effectively delivered. The ministry of science, technology and innovation has been advocating the use of Gatetrade as the technology standard for public procurement. It does however appear that a section of the Danish government is aligned differently to a decentralized ideology than the centralized (a national system) that Gatetrade represents. Gatetrade just as other solution providers has been marketing its product and services. E-procurement is successfully diffused only when both organizational level decision makers and end users within the organization are convinced to adopt.

Policy recommendation four: Governmental associations can via active mobilizations efforts have a positive influence in the diffusion of e-procurement. It should however be noted that e-procurement is successfully diffused only when both organizational level decision makers and end users are convinced to adopt.

Standard setting: During the early stages of the diffusion of an innovation several standards compete to become de facto. Those adopting an innovation regard the lack of de facto standard a barrier towards adoption. In some instances such as in the case of operating systems, Microsoft being widely used has emerged as de facto standard. There are other innovations such as the EDI in where government or a non-profit organization had to intervene to control promulgation in the number of standards. The timing of intervention is important because an innovation when regulated early can stall technological progress. A delayed intervention on the other hand can be ineffective as investments made in adopting a standard can cause organizations to resist regulation efforts (Damsgaard and Truex 2000; Kindleberger 1983).

When several e-procurement standards exist, suppliers may have to prepare their catalogues to suit different standards. Small and medium sized enterprises would find providing catalogues in several standards resource demanding and hence lack competitiveness as against large enterprises. SME's can be quite critical when the public sector demands catalogues in several standards. Public sector by adopting several e-procurement standards runs the risk of reinventing the wheel. Public sector however is not just efficiency driven but also ideology driven. Local governmental organizations can resist the adoption of a centralized e-procurement solution attempting to maintain their autonomy.

The ministry of science, technology and innovation has selected Gatetrade as the standard and recommends that all public sector organizations use Gatetrade. A part of the public sector however questions if government by selecting Gatetrade discourages the development of innovative e-procurement solutions. Kubus is the case under discussion in this regard in the Danish context. Had all governmental organizations adopted Gatetrade, then Kubus would not have obtained the support required for its existence. Kubus has proven its innovative capability by winning e-handelprisen for the 2002 and 2003 years.

Policy recommendation five: A solution selected as the standard should be provided as a recommended choice and not imposed upon.

Innovation directive: Innovation directive is a command provided by the government to the supply demand sides for investing in the development or use of an innovation. The command can take several forms such as i) mandating the use of technology in a governmental agency or an industry ii) requiring that organizations use a certain percentage of their income in research and development activities and iii) directing organizations to use a product or a process.

The ministry of finance in an effort to encourage the use of e-procurement has deducted a sum of money from budget allocated to some governmental organizations equivalent to savings expected from the use. However, it is unclear as to how savings expected from e-procurement is calculated. Organizations have learned from experience that savings that management and IT consultants foresee from the use of technologies is often hyped. Tonkin (2001) finds that organizations have in several instances first decided upon their e-Government strategy and then rationalized their investment decision. For the German Bund Online project the rationale for

calculating savings expected from e-Government has not been declared. The state of Victoria in Australia has revised savings expected from e-procurement post implementation from 12 to 11 million dollars per annum (Tonkin 2001). It is to be recognized that the savings figure is often an anticipated one and our understanding of costs and benefits associated with the diffusion of an innovation is evolving is nature. The budget cut made the ministry of finance can result in a backlash when organizations post-implementation do not save as much as the estimated.

Policy recommendation six: Innovation directives such as that of reducing budget allocations to governmental organizations can backfire when organizations post implementation realize that savings obtained do not match the budget cuts.

6. Overall perspective

This paper analyses actions taken for encouraging the diffusion of e-procurement in the Danish public sector. The institutional intervention framework conceptualized by King el al. (1994) is used to structure the analysis. The data for the study was collected using a single embedded case study design. A part of the Danish government, ministry of science, technology and innovation, has played an active role in encouraging the diffusion of e-procurement. The ministry partnered with few other governmental institutions and suggested that the Danish public sector trade through an e-market developed and hosted by a consortia of private companies; Gatetrade. The strategy to outsource the development and hosting of e-procurement has had success in that a part of the public sector – ministries - has joined Gatetrade and is increasingly utilizing the infrastructure. However, the local and regional bodies, which account for more than half the nation's expenditure, have not used Gatetrade actively. The analysis shows that as public administration is politically managed, government is mainly able to influence and not regulate both the supply and demand sides. A regulatory action can be misinterpreted as an effort to alter power structures within the public administration.

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