1-1-2004

Diffusion of eProcurement in the Public Sector - Revisiting Centralization versus Decentralization Debates as a Twist in the Tale

Somasundaram Ramanathan
Aalborg University, ram@cs.auc.dk

Follow this and additional works at: http://aisel.aisnet.org/ecis2004

Recommended Citation
http://aisel.aisnet.org/ecis2004/114

This material is brought to you by the European Conference on Information Systems (ECIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in ECIS 2004 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.
DIFFUSION OF E-PROCUREMENT IN THE PUBLIC SECTOR – REVISITING CENTRALIZATION VERSUS DECENTRALIZATION DEBATES AS A TWIST IN THE TALE

Ramanathan, Somasundaram, Aalborg University, Nørre Voldgade 8 3, 1358 København K, Denmark, ram@cs.auc.dk

Abstract

Several governments are in the process of implementing e-procurement. In the process they face several challenges. The diffusion of e-procurement in the Danish public sector is researched using case study research methodology to study the challenges faced. The results of the study are applied in this paper for explaining some of the challenges faced using the legacy centralization versus decentralization debates regarding computing and organization; which forms the tale. These debates in no doubt help in kick starting the research on the diffusion of e-procurement in the public sector. However, the phenomenon under study is complex and unique in several respects that the debates alone are inadequate for fully explaining the challenges. The paper presents a question as the twist in the tale answering which helps in understanding the nature of challenges much better. The question is “To what extent is government a single organization?”

Keywords: E-procurement, Public sector, E-government, Diffusion, Implementation, Inter-Organizational Systems, Electronic Markets.
1 INTRODUCTION

“A twist in the tale” is a collection of short stories written by Jeffrey Archer. The stories are written such that the reader realizes the true meaning of the story while reading the last few lines. Logic similar to that of the Archer’s is adopted for structuring this paper. The traditional centralization versus decentralization debates regarding computing and organization are applied in this paper for explaining some of the challenges faced during the diffusion of e-procurement in the public sector; which forms the tale. The paper presents a question as the twist in the tale answering which helps in understanding the nature of challenges much better.

2 THE STATE OF E-PROCUREMENT IN THE PUBLIC SECTOR

The public sector spends between 10 and 20 percent of its earnings in procurement activities (Thai and Grimm 2000; Jones 2002; Anderson et al. 2003; Goerdeler 2003). This is a whopping amount when converted to dollar terms. European Union for instance procures for more than 720 billion Euros annually (EU&PP 2003). E-procurement promises significant savings through increased efficiency and effectiveness. Several government organizations that represent regions and countries have embarked on e-procurement for realizing the promised savings.

E-procurement in the public sector is internationally emerging. Countries such as Denmark, Norway, Finland, Ireland, the United Kingdom, Spain, Germany, Portugal, Italy, Singapore, Brazil and the regions in the USA and Australia have embarked on e-procurement. Most or even all of the countries are still in the implementation stages. Not all countries diffuse e-procurement similarly; instead there are several diffusion patterns. For instance, the Danish central government has chosen a private e-market as the infrastructure for e-procurement (efkous 2003). The Spanish ministry of public administration has taken the role of defining functional, technical and organizational specifications (Juan 2002). The German government has invested 4.5 million Euro in developing a “flag ship” project e-vergabe, which it touts as the “model for public procurement in Europe” (Goerdeler 2003).

3 E-PROCUREMENT DEFINITION

E-procurement in the context of this paper does not imply just the technical system but also the organization surrounding it. “Build it they will come” or “IT as a magic bullet” are not the kind of assumptions held while using e-procurement. An e-procurement project is regarded successful only when the end users in public organizations procure electronically. MacManus’s (2002) recognition of the differences in meaning between “procurement” and “purchasing” is of relevance here. Quoting the dictionary of purchasing terms, MacManus (2002) explains procurement as denoting “…the combined functions of purchasing, inventory control, traffic and transportation, receiving and inspection, storekeeping and salvage and disposal operations” (NIGP 1996). Purchasing on the other hand is narrowly defined as “the act and the function of responsibility for the acquisition of equipments, materials, supplies and services. [Purchasing] describes determining the need, selecting the supplier, arriving at a fair and reasonable price and terms, preparing the contract or purchasing order, and following up to ensure timely delivery” (NIGP 1996). Contemporary e-procurement systems in the public sector facilitate the narrow set of activities defined as under purchasing and not that of the broader procurement. E-procurement as in the NIGP definition sense is more of a vision than it is reality.
4 PROBLEM PRESENTATION

E-procurement in the public sector has a lot of promise. A government can negotiate good deals with suppliers when it is able to accumulate all of its purchasing and negotiate as an entity. The negotiated agreements when made available in the e-procurement system can be accessed by the end users by logging into the system via the ubiquitous internet. The end users can place the order electronically utilizing the negotiated deals. The e-procurement system when interconnected with an organization’s internal financial system minimizes the transaction processing costs. E-procurement via automating several administrative procedures and by enhanced monitoring abilities minimizes opportunistic behavior among purchasing officials.

There however are several obstacles that are to be overcome for realizing the promise. Firstly, how should the e-procurement system be developed? For instance, should the government embark on a flag-ship project or should it let the concept evolve or should it outsource the project to private organizations or should it restrict its involvement only to the role of defining specifications? Secondly, an organization is able to realize the full benefits of procurement only when its internal financial system is interconnected with the e-procurement system. The interconnection however is a challenge as there are disparate internal information systems in a government. Thirdly, several governmental organizations have decentralized procurement practices adopting the trendy new public management (NPM) rationale (Anderson et al. 2003). The decentralization in some organizations is so deep that each individual does his or her own procurement. For establishing e-procurement there definitely is a need for centralizing decision making. The challenge in the centralizing is that power when let gone is difficult to get back. Finally, government organizations perform a diverse set of functions. The adequacy of a standardized procurement infrastructure to satisfy such diverse needs comes into the limelight.

Though e-procurement has only recently become a research topic, there are several research strands that the research community can rely upon explaining the above described challenges. The strands that we can rely upon include i) public administration ii) information systems iii) procurement science iv) electronic markets and v) Inter Organizational Systems (IOS) adoption science. A few research studies in the recent years have attempted explaining the e-procurement phenomenon. Zulfiqar et al. (2001) explains the challenges faced during the implementation of e-procurement in the Singaporean context via an explorative study. Anderson et al. (2003) enquire the use of e-procurement in the Danish local governmental organizations through a statistical study. They make a methodological contribution in the process by questioning the notion of querying the “professional buyer”. There are several other papers that tackle issues relevant to the research area. For instance, Vagstad (2000) makes an economic analysis querying the effect of local intelligence on decentralizing decision making in the government context. Jones (2002) provides an excellent descriptive account of purchasing practices in the Singaporean government. Gordon and Walsh (1997) analyze in details the challenge of outsourcing information technology in governmental organizations.

E-procurement research area at this stage requires an explorative study that not just analyzes the development insightfully but also lays the ground work for theory based accumulative work. This paper analyzes the results of an on-going research studying the diffusion of e-procurement in the Danish public sector using the legacy debates on centralization versus decentralization of computing and the impact of computing on centralizing versus decentralizing decision making in organizations.

5 STRUCTURE OF THE PAPER

The case study research method adopted is explained in details in the next section. Then, relevant details about the Danish e-procurement scene are presented. Three types of centralization versus decentralization debates are identified in the e-procurement context in the section that follows. They are
• centralization vs. decentralization of decision making at an organizational level
• centralization vs. decentralization of decision making at an inter-organizational level and
• centralization vs. decentralization of computing infrastructure

Accumulated knowledge on each of the three debates is applied for analyzing the nature of the challenges faced in the e-procurement context next. An insight drawn from the analyses is presented in the final section as the twist in the tale.

6 METHODOLOGY

This paper results from an on-going three year long study. The study’s objective is to research the diffusion of e-procurement in the Danish public sector. The objective of the study so far has been to document and analyze the Danish e-procurement effort based on an explorative study. An explorative study is adopted for there is little theory based knowledge available on the e-procurement subject. The case study methodology is chosen for it is suitable for studying newly emerging research areas. Eisenhardt (1989) states that case study research “…given the strengths of this theory-building approach and its independence from prior literature and past empirical observation, it is particularly suited to new research areas or research areas for which existing theory seems inadequate” (p. 548). The case study method can be adopted i) to provide description ii) to test theory and iii) or to generate theory (Eisenhardt 1989). The method is used in the context of this study primarily to provide description and to generate theory.

The research is a community level study in the sense several types of actors’ involvement in the Danish e-procurement project were studied just as the one adopted by Kumar et al. (1998). The types include i) buyers ii) sellers iii) infrastructure providers iv) trade associations and v) the strategic planners. Semi-structured interview is the prime method adopted for studying the actors’ involvement. A set of question areas is usually e-mailed to the interviewee pre-interview. These question areas are identified from a detailed literature review of several research strands. The interview is done with the objective of learning about the question areas. The interviewer at the same time was open to new leads arising from the conversation. The knowledge obtained from a conversation is taken forward to the next conversation and thus the Danish procurement context was researched. Apart from the interviews, secondary sources such as home pages, presentations, newspapers and internal reports were sought.

7 THE DANISH E-PROCUREMENT SCENE

7.1 The Country and Its Administration

Denmark is a country with a population of 5.4 million. The government’s expenditure accounts for 25% of its GDP. It is one of the least corrupt countries in the world. Global Corruption Report (2003) ranks it the second least corrupt country in the world (Anonymous 2002). The Danish government is tri-layered. The layers are as per the hierarchy i) ministries ii) regional bodies (amter) and iii) local bodies (kommune). There are 18 ministries, 14 county organizations and 275 local bodies. The local bodies account for 50% of the nation’s expenditure. They however are largely self sufficient for they collect 33% of the nation’s tax revenues (sources; Kl.dk, Denmark.dk, folketing.dk).

7.2 Initiating E-procurement Project

Denmark’s yearly procurement volume amounts to app. 15 billion USD of which a billion USD worth goods and services are immediately suitable for e-procurement. It is the first country to have embarked on e-procurement in Europe (DOIP accessed on Nov. 2003). The ministry of science, technology and innovation came up with the idea of e-procurement as an officer involved in the process explains;
“Basically it was three four years ago\(^1\) we started seeing a marketplace (fails to recollect the name) but we looked at that and got the idea that may be we could make a marketplace for the public sector as well. And then we started; we presented it for the minister and we presented for the government and they agreed that we should try something like it. Because, it was the opinion that public sector could save some money by doing e-commerce and hardly any in the public sector had started using e-commerce. So, we thought that making the infrastructure ready with a portal, we could push the development of e-commerce… That is the whole idea. Because when we ask the ministries and the communities why they were not buying things electronically, they would say well it is too expensive, it is too difficult, what systems should we choose? The public sector cannot use this and a lot of excuses. If we make sure that they have the infrastructure and the right conditions at least they don’t have that excuse.”

The government called for proposals for developing and hosting electronic trading infrastructure over which public bodies can procure. Out of five submissions, Gatetrade, a consortium formed by four large Danish organizations (Maersk data, Tele Denmark, Post Denmark and Danske Bank) was selected as the winner on the 21\(^{st}\) of March 2001. The ministry suggested the use of Gatetrade as the trading infrastructure to the rest of the government.

7.3 About Gatetrade

The portal went live on the 3\(^{rd}\) of Jan. 2002. Seven pilot organizations traded over its infrastructure in its early days. The portal was open to all since mid 2002. The infrastructure is open not just for the public sector but also for the private sector. It has progressively increased the number of customers and the line items traded over its infrastructure. As of Oct. 2003, it has over 1400 accessing customers and a million line items. Despite which the organization is not yet breaking even. The prime reason for the organization not breaking even is that the local and regional bodies have not traded over its infrastructure as it was foreseen during the conceptualization stages. Except for a couple of ministries, the rest have taken steps towards trading over its infrastructure. The owners are strongly backing the initiative.

Gatetrade offers three types of services on the buy side. They are i) Gatetrade direct ii) Gatetrade match and iii) Gatetrade collect. Gatetrade direct is the simplest solution of the three. It is a basic browser based solution. It is the most commonly adopted solution so far. Gatetrade match is a slightly advanced solution for the connecting organizations can download trade documents electronically and thereby seamless interconnect. Gatetrade is actively marketing this solution currently to its customer base. Gatetrade collect is the most advanced solution of all in terms of integration possibilities. Organizations that have access to the Gatetrade collect solution usually integrate their ERP systems with that of the marketplace. The end users punch out of their ERP systems and collect the data that they require from the market place and bring it back via the established integration. It is hence the solution is termed as Gatetrade collect. Only the organizations with large transaction volume find this solution feasible.

7.4 SKI (National Procurement Agency)

SKI was established as a joint venture between the ministry of finance (55%) and the national association of local authorities in Denmark (45%) a decade or so back. It negotiates frame agreements on behalf of all Danish governmental organizations. The buying organizations can choose using SKI negotiated agreements instead of self negotiating. SKI however has not been able to get the volume discounts as a representative of a large buying organization would be able to for it has not been able to convince the end users in utilizing the negotiated agreements. The sellers are unwilling to provide the

---

\(^1\) The interview was conducted during March 2003.
same kind of deal that they would provide to a large customer due to this lack of utilization. SKI is thus facing the typical “catch-22” challenge.

The SKI negotiated agreements are made available in Gatetrade. The end users can thus be aware of the agreements and utilize the negotiated deals by just a click of a button. SKI works closely with Gatetrade to the extent that some SKI executives are even in Gatetrade’s steering committee. A SKI executive explains their collaboration with Gatetrade as follows;

“...actually because it is such a big and important project, our owners in the Danish state wanted us to be a part of it and be involved in it, and that means that we are part of the steering committee and part of some of the project teams that involve DOIP, and therefore we have tight relations with Gatetrade.net”.

7.5 Grass Root Initiatives

Several bottom-up initiatives have propped up while the top-down Gatetrade has been initiated. Two of the prominent grass root initiatives are explained in this section.

The first is Kubus (www.kubus.dk). It is a small sized innovation oriented company that was started in 1988. It is owned and run by two brothers; Søren and Steen Rågård. During the mid-90’s the company embarked on developing content management systems. Then onwards it has developed a rack of systems. Kubus Tradebuilder is an e-procurement related solution that won the best e-business system prize (e-handelsprisen) awarded by a consortium of leading organizations for the 2003 year. Søren Rågard, the technical director of the company explains as to how Kubus got into developing the Trade builder system;

“In about the last quarter of year 2000, we got involved in two Kommune (municipalities). They were doing e-procurement or procurement together where the institutions and schools were buying at the same partners. They wanted to make the catalogue they had in paper; they wanted to make it electronic... and then we focused more on the (frame) agreements you have.... All agreements, all those you cannot procure on the Internet, also them you have to call him on the phone, those you have to print out some reports and fill out with a pen; 100%, one place you find it all. So, you don’t have the portal of services you can buy on the Internet. But you also have all the other agreements and the things you have to do at one place.”

The trade builder solution is built on the recognition that there is a need for an electronic solution for managing frame agreements regardless of whether the transaction is carried out electronically or not. Kubus hosts a supporting .net infrastructure via which suppliers and the end users can interact about experiences in using the product during the post sale phases. Thus, while Gatetrade is building upon its transaction focus towards other aspects, Kubus is building upon the content management and the post sale aspects of procurement.

KMD’s (Kommune Data) web indkøb (purchase) is the second grass root initiative. Local bodies (Kommune) collectively started KMD for addressing their similar IT needs. KMD Ø is a financial system that is run in most of the local bodies. The web indkøb system is tightly integrated with the local bodies’ internal financial system. The local bodies apparently have long sought KMD for a procurement module. A chief officer in KMD explains the history behind developing the web indkøb system as follows;

“One of the key demands from the municipalities at that time and still today is; KMD you must develop a procurement system which is closely integrated to our financial system. Because the whole process is about ordering, about the invoice; all related back to our financial controlling system...This is our situation. We are building iprourement system that is at a minimum (here meaning very) closely related to the financial. Because we know that is what the municipalities want and that is what they will pay for”
8 CENTRALIZATION VERSUS DECENTRALIZATION DEBATES IN THE E-PROCUREMENT CONTEXT

The exploratory study highlighted several challenges that are to be overcome for diffusing e-procurement. For example, how can procurement related decision making be centralized at an organizational level? How can SKI negotiate better deals and as well encourage the use of the negotiated deals? Does the Danish government require a representative such as SKI at all for negotiating frame agreements? How can Gatetrade obtain adequate participation so it attains self-sustainability? How best to incorporate the innovative ideas that grass root initiatives such as Kubus and KMD bring about?

The diffusion of e-procurement in the public sector is a sensitive topic. Discussing each of the above mentioned questions can result in several opinions. Just opinions alone are inadequate for scientifically advance the research field. A theory based explanation is instead required. The following historical centralization versus decentralization debates are used for understanding the challenges in perspective.

- Centralization vs. decentralization of decision making at an organizational level
- Centralization vs. decentralization of decision making at an inter-organizational level and
- Centralization vs. decentralization of computing infrastructure

A key insight realized from the discussion forms the twist in the tale. Discussion under each of the debates in the Danish e-procurement context is presented in this section.

8.1 Centralization vs. Decentralization of Decision Making at an Organizational Level

The centralization versus decentralization debate at an organizational level is about who in the organization will decide on the goods and services that an organization requires and from which supplier should they be procured from. McCue and Pitzer (2000) explain the various combinations along which purchasing can be centralized. In one extreme, there is a centralized purchasing authority to whom end users send their requests. The centralized authority authorizes the requests, identifies the suppliers, negotiates prices and makes the purchasing decision. In the decentralized extreme, end users make their own purchasing decision.

Procurement authority is both centralized and decentralized among the Danish governmental organizations. Procurement is a centralized activity in the Danish tax office and it has remained that way for the last 40 years (source: interview with a purchasing officer in Aarhus tax office). In contrast, procurement is a highly decentralized activity in the Danish universities. It however used to be centralized like a decade back but since then it has gradually become decentralized. A secretary in a Danish university explains procurement practice as follows:

"We thought so (that agreements made by a central purchasing body would be cheaper). But in a couple of years, we started checking on the prices ourselves. If we buy furniture directly from furniture stores, we can get a lot cheaper than if we buy from the university because her salary needs to be paid. If they get 500 DKK table and sell it for 550 DKK. Then the 50 is for her salary... It is what they give and what they take... We would not allow that. So we buy it ourselves."

Both the centralized and the decentralized structures have their respective advantages and disadvantages. An organization is able to accumulate its purchase and negotiate volume discounts involving professional expertise when the decision authority is centralized. However, the central authority can take a good decision only when it is well aware of the end user’s requirements. Gurbaxani and Whang (1991) term the cost of informing the central authority and the lack of it as decision information costs. Decision information costs tend to be high when the purchasing authority is centralized and low when decentralized. Organizations are not able to obtain volume discounts when purchasing authority is decentralized. The end users when given the responsibility can act in a
self serving manner instead of serving the organization, the risk of which is termed as the *agency costs*. The agency costs can be minimized through *monitoring*, which costs as well.

The use of IT for automating procurement procedures alters the arguments for centralization and decentralization. Those arguing for centralization can cite the role of IT in reducing the decision information costs. The end users can inform their requirements via a workflow system based on which the central purchasing authority can negotiate frame agreements. The end users can access negotiated frame agreements posted in the intranet or in an e-market simply via a desktop. The central purchasing authority can use business intelligence tools for learning about the needs of an organization and thereby is in a position to negotiate better frame agreements. It is thus the implementation of e-procurement system supports the centralization. Those arguing for decentralization can cite the role of IT in minimizing the cost of monitoring and thereby the agency costs.

The effect of IT in centralization versus decentralization of organizational structures has been a lengthy one. Gurbaxani and Whang (1991) provide a seemingly good solution to the debate. They recommend choosing the organizational structure in which the internal co-ordination costs, which is a sum of agency and decision information costs, are at a minimum. The centralization of decision making at the organizational level is recommended in this paper for e-procurement is expected to reduce decision information costs much more than it would the agency costs. Such a claim is made despite Denmark being one of the least corrupt countries in the world. Centralization however is a challenging task for power when let gone is difficult to get back (King 1983).

8.2 Centralization versus decentralization of decision making at an inter-organizational level:

Government organizations can negotiate better frame agreements when they accumulate their purchasing volumes via joint ventures. Such a trend is prevalent. Thirty three states in the US formed an alliance termed “Western State Contracting Alliance” (WSCA) whose motto is “every body benefits from the use of cumulative volume discount contracts” ([http://www.aboutwsca.org/](http://www.aboutwsca.org/)). Bartle and Korosec (2003) identify several such efforts made by the US states. In the Danish context, Kubus embarked on building the trade builder system when two local bodies that procure as one entity sought its assistance for developing a catalogue management system. SKI was formed to negotiate agreements on behalf of the whole Danish government.

The science behind this debate is quite similar to that of the previous debate. It is just the level of analysis that changes. Those arguing for centralization cite the advantages of reduced decision information costs. Those arguing for decentralization unlike the previous have a much stronger argument. Firstly, the local bodies would like to support their local economy by awarding government contracts to organizations based in their area. To remind the reader, local bodies obtain as much as 66% of their revenues from local taxes and the Danish government’s expenditure accounts for 25% of the nation’s GDP. The local bodies thus would want to maintain their autonomy or enhance it. Secondly, only the large suppliers have the ability to provide for the requirements of a large buyer such as that of a government. Small suppliers when unable to compete with the large might not survive especially when they are highly dependent on government orders. Government traditionally has taken efforts to encourage small and medium sized companies and not discourage their existence. Thirdly, adopting new public management (NPM) logic authority has been decentralized during the last decade to local governments such that service is generated as close to the citizens (Anderson et al. 2003). An attempt to centralize procurement is against this ideology. Finally, the local bodies query the notion of being monitored at the governance level.

This debate is much more complex than the previous one. It is difficult to apply the solution that Gurbaxani and Whang (1991) suggest for resolving this debate. Local bodies for instance query if at all they should be monitored. The issue is not just about efficiency but also about effectiveness. Governance is not just about making economically rational decisions as the Cybernetic theory explains. There are as well the adverse effects associated with rationalization that are to be taken into consideration (Stepney 2000).
Centralization vs. decentralization of computing infrastructure

The debate about whether to centralize or decentralize the computing infrastructure is a traditional one. King’s (1983) summary of the debate is very representative of the topic. The debate has originated in the e-procurement context as well. In the Danish context, should all governmental organizations adopt the centralized Gatetrade infrastructure or should they all develop custom solutions. The two sides of the debate are hereby presented;

Those supporting Gatetrade as the standard argue as follows; we should regard government as a single entity. Applications required for e-procurement are quite similar. Why then should multiple infrastructures for the same purpose be developed by the same entity? E-procurement infrastructure is not only costly to develop but also to maintain and further advance. It is prudent that investments be made in one sophisticated system that seamlessly connects with all of the government. This view assumes that all involved actors are rational and that they all share the same ideas on improving government performance.

The other side supporting decentralized computing has the following arguments; unlike private enterprises for which efficiency is the sole evaluation criteria, governments as well have to take effectiveness into consideration. Government is such a complex entity that one system cannot possibly satisfy all of its requirements. As an end user in a large Danish university puts it

“There are 22 departments. It is like 22 different firms. Some are old fashioned. We have a lot of responsibilities here. We can buy all our things. In some departments it is institute leader like Peter who is buying but not here. There are different rules dependent on where you are hired.”

The proposed centralized system does not satisfactorily interconnect with our internal financial system for now. When supporting a single system we do not encourage the emergence of innovative grass root initiatives such as that of Kubus. This is not good for the nation as a whole. There clearly is a need for an organization specific or a community specific system. The fact that the proposed standard is owned by a private organization does not help the cause either.

King (1983) explains that the extent to which the computing infrastructure is centralized or decentralized is not about “which way is best?” It usually is “whose way is it going to be?” In the Danish context, controls have increasingly been decentralized during the last decade. Thus proposing a centralized IT infrastructure does not fit well with the norms. The legacy KMD Ø financial system and the contemporary Kubus system as well are to be taken into account while deciding on the debate. There however is no disagreeing that the Danish government should enhance its efficiency on procurement activities. Just allowing the systems to evolve and hope that the issues will resolve itself is not a recommended option. Increased efficiency is possible only when the diverse systems interconnect with one another. Hence, it is recommended that a committee is formed in where the involved actors interact and decide upon the best mode for proceeding further.

9 A TWIST IN THE TALE

The tale so far has been that the public sector faces several challenges while implementing e-procurement. Several of these challenges are about centralization versus decentralization of decision making and computing as it is explained in this paper. Three categories of debates identified in the paper based on a case study of the Danish public sector have to be resolved satisfactorily for the successful diffusion of e-procurement; centralization versus decentralization of decision making at an organizational and inter-organizational levels and about the computing infrastructure. The centralization-decentralization debates have been on-going for several decades. The knowledge about

---

2 A similar problem is faced in the Singaporean context as well describes Zulfiqar et al. (2001).
these debates is applied for understanding the nature of the challenges faced while implementing e-procurement. In no doubt the accumulated knowledge has helped in kick starting the diffusion research on e-procurement in the public sector. Several public sector specific issues have been included for enriching the debate such as the local bodies’ desire to be autonomous, the importance of effectiveness and not just efficiency and the need for encouraging small suppliers. But why then do these debates originate? The answer to this question which forms the twist in the tale is “these debates originate due to differences in perception about the extent to which government is a single organization.”

**Literature List**


