Institutional Responses to Electronic Procurement in the Public Sector

Abstract

Purpose: *The primary aim of the research presented in this paper is to address the gap in the literature with regard to the factors that affect the uptake and application of e-procurement within the public sector.*

Design/methodology/approach: *This analysis was achieved through five in-depth case studies – based upon extensive interviews, observation and documentation reviews - conducted within central and local government organisations.*

Findings: *The study shows that despite being very different in terms of their form and function, each of our five case study organisations had achieved similar levels of progress in terms of their adoption of e-procurement technologies. In short every organisation had already adopted BACS, all five were also actively planning to implement: e-tendering; e-award; e-contract and e-catalogue systems, but none had any intention of adopting e-marketplaces or e-auctions.*

Research limitation/implications: *The results of this study will help individual organisations to better understand their current situations and the barriers that will need to be overcome before they can significantly expand their adoption of e-procurement technologies.*

Originality/value: *In addition to presenting one of the first detailed studies of the adoption of e-procurement technologies, this study also breaks new ground through its use of the lens of 'Institutional theory' to help interpret the findings.*

Keywords: Electronic Procurement; Public Sector; Institutional Theory; Case Studies.

1 Introduction

In addition to dramatically modifying the consumers' shopping habits [Doherty & Ellis-Chadwick, 2009], Internet technologies are also beginning to have a marked impact upon the buyer-supplier relationship. The web has been successfully used to streamline the purchasing function, though refinement of the supplier base, and in so doing, has made many supply chains '*leaner*' [Croom, 2001]. Already, many commercial organisations across a range of sectors have reported very significant benefits from the use of e-procurement, such as improved contract compliance, enhanced management information, reductions in procurement costs and reduced transaction times [Sanders, 2007; Gunasekaran & Ngai, 2008]. However, it is not just the private sector that is likely to benefit from the adoption of e-procurement capabilities, as there is also the potential for government agencies to gain cost-effectiveness advantages [Croom & Brandon-Jones, 2007]. The Internet is also creating opportunities for Government to become more transparent as it facilitates the exchange of information between public sector agencies and their trading partners. As McIvor et al [2002] note: *'the connectivity that automatically results from Internet technologies can exert a very powerful influence in encouraging a free flow of ideas around the organisation, permitting individuals and organisational units to converge and inter-connect'.*

In response to the evidence of successful e-procurement in the private sector and interest in its potential in the public sector, the UK Government commissioned a number of high profile reviews to explore its potential within the public sector [e.g. NAO, 1999; Byatt, 2001]. Following these reviews, the UK Government set an ambitious target [NAO, 1999] whereby 90% of routine items would be purchased electronically by March 2002. Now that it is over a decade since the Government tried to incentivise the adoption of e-procurement, the time would seem ripe to explore the extent to which public sector organisations have embraced this important new technology. Although there has been some academic interest in public sector e-procurement [e.g. Moon, 2005; Croom & Brandon-Jones, 2007], it remains a rather neglected topic [Schoenherr and Tummala, 2006; Vaidia et al, 2006]. Against this backdrop, the aim of the research, reported in this paper, is to explicitly target this gap in the literature by exploring the factors that affect the uptake and application of e-procurement within the public sector. To this end, a research model was developed from the literature, which could then be used as the basis for qualitatively exploring the procurement behaviours of public sector organisations. A further novel element of this study has been the use of '*institutional theory*' [Scott, 2008], to help interpret the case study results. There is a growing recognition that because organisations of the same type are subject to the same institutional pressures [Frumkin et al, 2003], they tend to adopt similar organisational structures, processes and behaviours [Meyer and Rowan, 1977]. In this study, we were therefore particularly interested in spotting any homogenous procurement behaviours, which might be explained on the basis of common institutional pressures.

2.0 Literature Review

This section aims to review existing literature with respect to the adoption of e-procurement, and those factors that might help explain adoption behaviours. In critically reviewing the literature, the motivations and academic justification for this research will be established.

2.1 E-procurement in the UK Public Sector

At the dawn of the Internet era, Gebauer et al [1998] concluded that emerging technologies are raising hopes of reversing the tradition of costly, time-consuming, and inefficient procurement. Very soon an embryonic literature had been established reporting on the, largely positive, experiences of private sector organizations [e.g. Croom, 2001; Essig & Arnold, 2001]. Despite the compelling nature of the case for public sector e-procurement that has been made both by formal, governmental-sponsored reviews [NAO, 1999; Byatt, 2001], and perhaps more importantly through the positive experiences of private sector organizations, there is very little evidence that it has been widely adopted within the UK public sector. A recent study of government purchasing strategies found that only: '*13% of orders are sent electronically; 3% of invoices are received and processed electronically and 6% of tenders are transacted electronically*' [D for C&LG, 2008; p. 19]. As Tonkin [2003] notes, there is '*little evidence of extensive e-procurement use in the public sector and therefore its coverage in the academic literature is also very limited*. Although the public sector e-procurement remains rather neglected, a literature is beginning to emerge, with recent contributions focusing upon its uptake in: Australia [Vaidya et al, 2006]; the US [Moon, 2005]; the UK [Croom & Brandon-Jones, 2005 & 2007]; and Germany [Wirtz et al, 2010].

2.2 Factors affecting the adoption of e-procurement

Within the private sector a significant amount of research has been carried out into the benefits that can be accrued, from e-procurement, should it be successfully implemented. Identified benefits include: enhanced relationships with suppliers; reduced order cycle times; reductions in the cost of placing orders; the stream-lining of the supply-chain, greater compliance with standards [Croom & Johnson, 2003; Hawking & Stein, 2004; and Teo et al; 2009]. However, it must be recognised, that the outcomes of e-procurement initiatives in the private sector have not been uniformly positive, as problems have often been experienced. Examples of common problems include: security breaches; cultural mismatch; non participation by key suppliers; regulatory difficulties; and failure to achieve value for money [Croom et al, 2003; Trkman & McCormack, 2010]. Ultimately, the success of an e-procurement initiative will be dependent upon a range of factors, such as the following (Min & Galle, 2003; Hawking and Stein, 2004; Bartezzaghi & Ronchi, 2004):

- The organization's ability / inability to re-engineer its procurement processes;
- The presence / absence of the appropriate competencies amongst its employees;
- The appropriateness / inappropriateness of the organization's culture;
- The availability / unavailability of appropriate standards.

The prevailing wisdom suggests that although e-procurement has many operational and financial attractions, these will only be realised, if the ground has already been well prepared through the cultivation of facilitators and the elimination or dilution of all impediments.

2.3 E-procurement through an 'Institutional' lens.

The central tenet of institutional theory is that organisations are primarily shaped by their desire to achieve a high level of legitimacy in the eyes of key groups of external

stakeholders, rather than being driven chiefly to optimise organisational performance [Dimaggio and Powell, 1983; Deephouse & Suchman, 2008]. As organisations and business units of the same type share many external stakeholders, and are subjected to the same environmental pressures, they tend to adopt strikingly similar organisational designs and behaviours' [Scott, 2008]. For example, it has been shown how organisations of a certain class might all adopt similar attitudes to the desirability, or otherwise, of a particular type of technology, such as EDI [Teo et al, 2003]. In a similar vein, studies have demonstrated how such institutional factors have also influenced commercial organizations to mimic one another with respect to both their adoption of B2B and B2C e-commerce [Soares-Aguiar and Palma-dos-Reis, 2008]. Consequently, in addition to the potential inhibitors / facilitators highlighted in the previous section, there is also the yet un-tested possibility that there are a number of institutional drivers that might be either encouraging or discouraging public sector organisations when it comes to the adoption of e-procurement.

2.4 A Critique of the Literature

Although a considerable body of work, with regard to the uptake and application of electronic procurement, has already been assembled, it can still be criticised in a number of key respects. Existing studies tend to adopt narrow conceptualisations of e-procurement, typically centred upon a specific type of technical artefact, such as EDI [Min & Galle, 2003; Teo, 2003]; e-auctions [Hartley, 2004] or electronic markets [Fu et al, 2006]. Existing empirical studies of adoption factors have also typically been accomplished using questionnaires [e.g. Min & Galle, 2003; Davila et al 2003; Teo et al, 2009; Gunasekaran et al, 2009; Liu et al, 2010], and there has, therefore, been a relative absence of in-depth studies of e-procurement adoption, using qualitative methods. Perhaps even more importantly, to date there have been relatively few studies of e-procurement adoption in a public sector context. The one existing study that already addresses this gap in the literature is a qualitative study of the impacts of e-procurement implementations, within the UK public sector [Croom and Brandon-Jones, 2005, 2007]. Although this study presents many interesting and important insights into the transformational impacts of e-procurement, it doesn't present an intensive analysis and critique of the adoption practices of public sector organisations. A further gap in the literature, as it stands, is the explicit use of Institutional Theory, to determine the extent to which e-procurement adoption practices, within the public sector, are being driven by shared environmental pressures. Against this backdrop, we wanted to explicitly address these gaps by undertaking an in-depth study of the application of e-procurement, within the public sector.

3.0 Conceptual model of e-procurement adoption

The public sector e-procurement adoption model, presented in this section, is based upon the prior literature, and in particular private sector research, where there is a far richer and more comprehensive body of academic material available. This strategy was deemed appropriate, as there is a growing recognition that from a purchasing perspective the '*two sectors are becoming more and more alike*' [Arlbjørn & Freytag, 2012; p. 215]. Based upon a careful review of the literature it was possible to identify the following key elements of the model [see figure 1], which would help to explain an organisation's adoption practices:

- **Drivers/facilitators:** Prior research has shown that there are a variety of organisation-specific capabilities and characteristics, which might facilitate the successful adoption and integration of e-procurement technologies. For example, pre-existing factors, such as organisational capabilities, technical infrastructure, B2B know-how and trading partner readiness [Doherty & McAulay, 2002; Soares-Aguiar & Palma-dos-Reis, 2008], might strongly influence an organisation's ability to successfully adopt e-procurement;

- **Barriers/inhibitors:** All organisations contemplating major new investments in IT are likely to face a significant array of obstacles that must be overcome if a successful implementation is to be achieved. Indeed, there are many common barriers such as: cultural inertia, the need to reengineer structures and processes, resistance to change, lack of procurement skills [Min and Galle, 2003; Bartezzaghi and Ronchi, 2004];

- **Current problems:** One of the biggest incentives for organisations to invest in e-procurement is if it is experiencing debilitating problems with it existing manual or semi automated procurement processes. Such problems tend to be evidenced through: high levels of maverick spend; high levels of errors; too many suppliers; or, slow transaction processing [Hawking & Stein, 2004];

- **Potential benefits:** E-procurement initiatives have the potential to deliver a significant variety of important organisational benefits. For example, an organisation might be encouraged to adopt e-procurement, in order to reduce administrative costs; improve process efficiency or reduce paper-work [Hawking & Stein, 2004; Teo et al; 2009].

- **E-procurement adoption:** A key objective of this study was to develop a rich conceptualisation of e-procurement technologies, which could be used to establish a finer grained understanding of e-procurement adoption. To this end, the literature [e.g. Davila et al, 2002; Schoenherr and Tummala, 2006; Muffato and Payaro, 2004] was used to identify and classify the key types of e-procurement technology, currently being deployed in organisations [see figure 2]. Our decision to target a variety of e-procurement technologies, rather than any single module, can be justified on the basis that the most significant benefits are most likely to arise from the implementation of an integrated portfolio of applications [Croom and Brandon-Jones, 2007; Tai et al, 2010].

It must be reiterated that the vast majority of the literature that helped us to develop this model related to the experiences of private sector organisations. From this literature, we tend to get a picture of organisations that are very conscious of the potential benefits of e-procurement technology, and see it as an obvious solution to the problems they are experiencing with their existing purchasing processes Consequently, they have typically been keen to adopt such technologies, as long as their internal situation, in terms of the balance between drivers and inhibitors, appears favourable [Muffato and Payaro, 2004]. However, private and public sector procurement is different in a number of key respects: public sector procurement is often hidebound by formalised, bureaucratic and rigid procedures [Spiller, 2008], and constrained by political imperatives [Murray, 2009]. Consequently It seems likely that whilst public and private sector organisations might have similar perceptions about the problems with traditional procurement and the potential benefits of electronic solutions [Croom & Brandon-Jones, 2007], their view of the drivers/barriers is likely to be rather different, as these are shaped by the institutional context. Consequently, in addition to exploring the very explicit and transparent drivers for the e-procurement technology, we were also very keen to use institutional theory, to get a more nuanced

understanding of the institutional factors that might be influencing all public sector organisations.

Institutional theory argues that all organisations take the shape they do because they '*draw from the culture around them value-based notions of how things should be organised*' (Tolpert & Zucker, 1996). Whilst institutional theory is becoming an increasingly important lens for studying all types of organisational phenomena [Ashworth et al, 2007], it is particularly appropriate for the study of public sector organisations, as these are perceived to be more susceptible to institutional forces than their profit-oriented counterparts [Frumkin et al, 2003]. Consequently, in addition to exploring the highly tangible and explicit drivers for B2B adoption, that stakeholders could readily articulate, we were also keen to apply the lens of *Institutional Theory* [Scott, 2008] to explore the deeper motivations and behaviours of our case organisations. It was our contention that there would be a number of significant institutional factors that would exert an influence over the behaviour of all governmental departments and agencies, irrespective of their own particular circumstances. It seemed highly likely that any public sector organisation contemplating the adoption of e-procurement technology would be greatly influenced by the behaviour and experiences of its peers, as well as by governmental policy and initiatives. More specifically, it was anticipated that it would be possible to use DiMaggio & Powell's [1991] classification of '*isomorphic pressures*', as discussed below, as a lens to help interpret the findings of this study:

- **Coercive Isomorphism:** Organizational procedures, behaviours and structures are often strongly influenced by the demands of actors on whom the organization is dependent for resources, or even from outright regulation and mandates.

- **Normative Isomorphism:** Within a particular organisational field there is typically a drive towards professionalization, by which members of an occupation, will over time, attempt to define and regularise the ways in which their work should be undertaken [Deephouse & Suchman, 2008].

- **Mimetic Isomorphism:** Uncertainty is a powerful force that encourages organisations to imitate one another. Consequently, before adopting any new innovation, organisations will tend to see what their '*peers*' are doing, before committing themselves [Wejnert, 2002].

The e-procurement adoption model [see Figure 1] presents a summarised view of the key areas that are likely to influence the adoption of e-procurement technologies. More specifically, the more readily observable and tangible adoption factors, on left hand-side of the figure, were explicitly used to guide the collection of data, as discussed in the following two sections. By contrast, it was envisaged that the isomorphic factors, on the right hand-side of the figure, would be used as a lens to help interpret the case study findings, as presented in the discussion section.

4.0 Research Methods

In terms of its philosophical perspective, this empirical study can be broadly grounded in the '*interpretive*' tradition as our aim was to gain '*knowledge of reality*' through the study of social constructions, in particular, language and documents [Klein & Myers, 1999]. Our task, in this respect, was made easier, as one of the three researchers was employed by a large consultancy firm as a '*Principal Consultant*', with responsibility for providing advice on the

applicability of e-procurement initiatives, across a variety of public sector agencies [see appendix A]. In this position he had unrestricted access to a wide range of relevant information and key personnel, and was uniquely well placed to gain important new insights into the potential roles and impact of e-procurement. The research approach adopted was, however, more akin to case study-based '*participant observation*', than '*action research*' [Nandakumar & Jones, 1999], as the consultant's primary was to provide objective and impartial advice on the potential for e-procurement, rather than having any role in the selection or delivery of specific e-procurement technologies.

Over a five-year period the '*principal consultant*' was heavily involved in five major e-procurement projects. The broad aim of each project was to investigate the extent to which a variety of different e-procurement technologies might improve procurement performance, within the host organisation. In each case, he was seconded to the project for a minimum of three months, in which time he worked at the client's site, interacted with key personnel and had access to project documents. Consequently, each of the case studies was chosen on the basis of convenience, rather than more objective criteria. However, as each of the case study organisations was a large, highly sophisticated, UK-based public sector agency, they constituted a sufficiently homogeneous group to allow meaningful comparisons and contrasts to be made.

The case studies were conducted using a number of complementary data collection techniques [Yin, 2009], to build a rich and comprehensive picture of the organisation's current procurement processes, as well as to critically appraise its potential to adopt e-procurement. More specifically, to get an overview of scale and complexity of each case organisation's procurement activities, a very significant document review was conducted, addressing issues such as: numbers / location of suppliers; numbers / values of invoices; average time / cost to process purchase orders; and the value of expenditure by commodity group / division. The results of the document review highlighted many organisational problems, so a series of interviews were undertaken to help interpret these findings, as well as addressing a wider set of issues, relating to the research model. A wide variety of employees from the case organizations were interviewed, including senior managers, procurement specialists, users of procurement services, and supplier representatives. The interviews generated a very significant amount of data, as they were generally lasted between 2 – 3 hours. In addition to these primary data collection approaches, the lead researcher's privileged role, within the case organisations, allowed him to observe and record a significant amount of supplementary information, which contributed greatly to the richness of the data set.

Having completed the data collection, a within case analysis was conducted upon the detailed data-sets, collected for each of the five case organisations. Given the depth and richness of these data-sets, '*marginal remarks*' [Miles and Huberman, 1994] and '*in-vivo'* coding[1] were applied to ensure that they were analysed in a rigorous manner. As an integral part of this analysis, a number of common techniques were applied to help ensure the validity and reliability of the findings [Riege, 2003]. More specifically, the reliability of the study was increased through the adoption of a '*case study protocol*', to ensure that each individual study was approached and conducted in the same manner [Yin, 2009]. Moreover, construct validity was increased, by the use of a number of distinct, yet complementary data

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[1] *In vivo* codes are derived from phrases used repeatedly by informants, during interviews [Strauss and Corbin, 1990]

collection approaches, allowed us to '*triangulate*' [Eisenhardt, 1998] our findings. Having analysed, and validated each case, individually, the cross-case analysis, allowed us to apply a '*logic of replication*' [Eisenhardt, 1989], to explore the extent to which each case confirmed or disconfirmed emergent findings. The validated results of this cross case analysis are presented in the following section,

5.0 Research Findings

Table 1 presents a comparative overview of the extent to which each of the five case organisations had already adopted the e-procurement technologies, as presented in figure 2. It can be seen that all five case organisations are exhibiting a high degree of commonality, in their progress in adopting e-procurement. Indeed, with respect to seven of the twelve technologies under investigation, our case organisations are at exactly the same stage, which provides some preliminary support for the hypothesis that there might be some institutional effects at play. It is beyond the scope of this paper to present a detailed review of the progress with respect to all twelve of our target technologies, so the remainder of this section will be used to focus upon just three technologies, for which there was a high degree of commonality with regard to their status across all five case organisations. Firstly, we'll review a technology that has already been adopted by all five organisations [BACS], then one that is planned to be implemented, imminently, in all cases [e-tendering], and finally, one that no case organisation is likely to implement any time soon [e-market-places]. Figure 3 provides an overview of the key enablers and inhibitors for each of these three, key e-procurement technologies.

5.1 The adoption of BACS

At the time that the study was conducted, all five case organisations had embarked upon an e-procurement adoption agenda. For most, the point of departure was the implementation of BACS [Bankers Automated Clearing System], which is a very common UK-based standard to facilitate the electronic processing of financial transactions. Given the very serious nature of these procurement problems, as discussed below, it wasn't difficult to discern why the case study organisations had already begun their programmes of software implementation, through the introduction of BACS systems.

- **Inefficient manual processes:** A common theme across all the case organisations was that their processes for paying invoices were extremely inefficient, because they were based upon a combination of manual process, supported by ad hoc systems. As one Finance Officer [**Case #3**] commented: '*each invoice (and supporting documents) that is paid by my department has already been keyed at least once to ad hoc systems (usually spreadsheets) by finance staff in a front line department*'. The problem of inefficient processes was exacerbated by the very large volumes of invoices to be handled by public sector organisations. This was evidenced through a critical review of one council's [**#1**] procurement related data which indicated that 300,000 invoices are received and processed annually, and of those 70,000 invoices had a value of £100 (or less.

- **Large volume of paper (problem):** Managing the huge volumes of paperwork associated with procurement and invoice payment was a common problem shared by

all case organisations. As one of the procurement officers [**#1**] noted: '*the current procedure of filing and storing invoice related paper for 7 years is burdening the Council with increasing document storage costs'*. Indeed, as another Procurement Officer [**#5**] commented: '*for each procurement action, a minimum of seven, hard-copy, pieces of paper are involved, which is excessive and slows the process right down*'.

Despite the presence of some very real problems that could potentially be alleviated through the introduction of BACS, its adoption had been dependent on the extent to which facilitators were in place, and any inhibitors could be overcome. In all five case organisations, the primary inhibitor was resistance to change. Indeed, as one procurement officer [**#1**] noted: '*the decision to introduce BACs as the corporate method of paying suppliers, was not well received, and was seen as the start of a drive to standardise procurement processes and systems across the Council'*. However, such resistance could be overcome as noted by a manager, in another Council [**#2**]: '*we do not readily accept change, unless there is a compelling need for change, and for this reason I think that the business case developed for the introduction of BACs clearly demonstrated the benefits to the organisation, and as such, this project was a success'*. A common strategy to build a solid business case for BACS was by reference to changes in public policy, which reflected the government's desire to see improvements to public sector purchasing, as discussed below:

- **Public policy (facilitator):** All five case organisations highlighted the positive role of public policy in driving the adoption of BACS. As one Director of Resources [**#2**] noted, the case for BACS was primarily built on the requirements to provide an annual '*Comprehensive Performance Assessment*' [CPA] and the restrictions placed on expenditure through a number of tough '*Spending Reviews*'. In a similar vein, it was recognised that government policy had: '*provided significant impetus to revising the procurement processes and practices used by our*' [Finance Director; **#5**].

- **Availability of a proven solution (facilitator):** The Bankers' Automated Clearing System is an extremely well understood and reliable means of paying invoices, which has been successfully operating since 1968. Consequently, its introduction was perceived to be: '*relatively straightforward, once a number of "isolated pockets of resistance (from suppliers) were overcome, given that it is a widely accepted payment method*' [Procurement Officers, **#5**].

The flip side of the problems that these organisations were experiencing prior to the implementation of BACS, was the benefits that were realised, once it had been implemented. In taking steps to reduce the very large volumes of paper being inefficiently processed the following very important benefits were also realised:

- **Improved financial control:** It was generally agreed that the introduction of BACs has significantly improved financial control across the case organisations, primarily in relation to the management and reconciliation of cheques to suppliers. As one Internal Audit Manager [**#5**] noted: '*the implementation of BACs to the organisation ………………. has significantly contributed to my confidence that there will be an accompanying reduction in the number of cases of fraud, or error across the organisation*'.

- **Improved BVP008 rating:** BVPI008 encourages public sector organisations to pay all of their supplier invoices, within 30 days of receipt of a valid invoice. A common

benefit identified amongst the case organisations was the ability of BACS to help raise BVP008 rating. As one Chief Executive [**#2**] commented: *'our performance in relation to BVPI008 over the past number of years had been unacceptable … it was my intention to address this issue, through the introduction of streamlined procurement processes, with the introduction of BACs being one of the early examples of this, which has already delivered improvement'.*

- **Reduced administrative costs:** Probably the most significant benefit to be realised, across all five cases, through the introduction of BACS, was the reduction in administrative costs. The introduction of BACs as the preferred method for paying suppliers provided one organisation [**#1**] with '*significant reductions in the administration costs associated with the payment of suppliers*'. As the one Finance Director [**#5**] noted, BACS had already helped to "*reduce the administrative costs associated with procurement*", by reducing process inefficiencies and work duplication.

The technology was also perceived to have helped to improve working relationships with suppliers, by making the process more transparent and efficient. As one representative of a supplier organisation [**#1**] acknowledged: 't*he technology has improved our working relationships*", although he admitted that suppliers were worried that in the future it might have a "*negative impact on prices, and associated margins*' [**#1**].

5.2 The planned adoption of e-Tendering

Whilst many of our case organisations had already implemented, or were actively planning to adopt e-notification software, to electronically notify potential suppliers of future tendering opportunities, less progress had been made in terms of developing complete e-tendering solutions. However, the capability to electronically receive tender submissions from potential suppliers, through on-line tender receipt systems, was high on the agenda of all five case organisations. In common with the adoption of BACS, the key driver for the adoption of e-tendering was the strong desire to replace manual processes with more efficient and reliable electronic processes. However, there were other organisational problems that it was envisaged that e-tendering might help alleviate:

- **Ad hoc procurement systems (problem):** A common theme across all the case organisations was the problems caused by *ad hoc,* stand-alone procurement systems, supporting the largely manual procurement processes. The Head of Information, in one governmental department [**#4**], noted that: *'across the organisation we currently have a large number of ad hoc systems that feed into the overall* [manual] *procurement process',* which make it very difficult to get any '*overall picture*' of the effectiveness of their procurement processes.

Despite the many obvious attractions of extending the range of procurement applications, in use, it was also widely recognised that there were many barriers in existence that would make it very difficult for the case organisations to easily achieve their immediate plans to successfully adopt e-tendering. For example, there were many common concerns raised from a technological perspective, with respect to the adequacy of the organisations' IT infrastructure and the inability of key suppliers to trade electronically and the poor levels of IT literacy amongst existing staff. However, the two primary inhibitors delaying the uptake of e-tendering were:

- **Resistance to change (inhibitor):** The stakeholder discussions with all of the case study organisations noted that there was considerable resistance to the introduction of e-tendering, particularly among procurement staff. This rationale for this resistance was clearly articulated by a procurement officer [**#2**]: *'procurement officers have a modicum of power and authority in the organisation, which would be diluted by the implementation of e-tendering'.* Such resistance to change was found at all levels within an organisation: '*there is resistance from my peers in the senior management team as well as resistance from my colleagues, to any move to "upgrade" procurement*' [Director of Environmental Services: **#3**].

- **Unwillingness to reengineer (inhibitor):** It was widely envisaged that the introduction of e-tendering would entail the comprehensive re-engineering of an organisation's procurement processes. It was not envisaged that this could be accomplished with any degree of enthusiasm: *'As the Director leading this aspect of the overall Council's modernisation project, I had a number of challenging conversations with staff, some who were in post for 20+ years, to persuade them of the merits of changing our processes to deliver better services to our customers, which I have to say was not easy'* [Director of Resources: **#2**].

Closely related to the inhibiting effects of resistance to change and unwillingness to re-engineer, was the widespread concern that public sector organisations simply don't have the relevant skills and capabilities to effectively implement and operate sophisticated procurement technologies, such as e-tendering. As one Procurement Officer [**#5**] put it bluntly, there is a '*serious skills deficit*'.

Despite the strength of these inhibitors, there was widespread recognition that e-tendering has the potential to deliver similar types of benefits to BACS. For example, it was widely envisaged that the introduction of e-tendering systems would help to reduce the administrative costs, associated with procurement, and improve financial control. As one Procurement Officer noted [**#1**]: *'given this scale of potential savings, the future introduction of e-tendering to the Council should have a very short payback period, and should be a quick win for the Council"* However, it was also anticipated that the introduction of e-tendering might also help organisations achieve better value for money, when purchasing:

- **Improved value for money (benefit):** By managing the tendering process more effectively it was envisaged that organisations could drive down the prices that they paid for goods and services. As the Director of Finance, for one governmental department [**#4**] noted: *'this organisation currently spends over £87m annually on goods and services. From reviewing case studies in Local Government there are potential savings of 10-15% annually on the price that we pay for goods and services. If these savings are real, then we would be able to input £8-15m per annum into the delivery of front line services'.* In a similar vein, a Procurement Officer [**#5**] noted that the uptake of e-tendering should facilitate "*significant reductions in the price paid by the organisation, through its potential for aggregation and collaboration to obtain better discounts'.*

Despite the fact that e-tendering and BACS share many of the same drivers, particularly in terms of the problems they are designed to address and the benefits they will deliver, the differences in their facilitators and inhibitors help explain why BACS has already been implemented, whereas e-tendering systems are still stuck on the drawing board. More specifically, because of the greater complexities of e-tendering processes and systems, the

challenges of re-engineering processes and overcoming user resistance are far stronger for e-tendering. Moreover, the BACS technology is far simpler and far more standardised than e-tendering solutions, and can therefore be far more easily integrated with an organisation's procurement processes.

5.3 The Non-adoption of electronic market-places

An e-marketplace is a location on the Internet where companies can obtain or disseminate information, engage in transactions, or work together in some way. For all our case study organisations e-marketplaces were simply not on the agenda, as this particular form of technological innovation was considered to be unsuitable for the needs of a typical public sector organisation. Along with their close cousin, e-auctions, the electronic market-place was perceived to be more suitable for private sector organisations that were dealing in very large quantities or regularly purchased and narrowly defined materials. More specifically, the two most common inhibitors of the move towards electronic market-places were:

- **Complexity of procurement processes (inhibitor):** Discussions with staff at one Council [**#1**] suggested that the primary reason that electronic marketplaces were unlikely to take off in the public sector, were the sheer variety of goods and services to be purchased, which made procurement processes highly complex. As a Contracts Policy Manager [**#4**] noted: '*procurement in this organisation ranges from the simple purchase of IT consumables, through to complex multi-million pound construction or maintenance contracts*'.

- **Public policy (inhibitor):** Another key inhibitor of the expansion of e-procurement into areas such as auctions and market-places was the restrictions it was perceived to place on Council's ability to support local businesses. As one Director of Corporate Services [**#3**] noted: '*although I feel we will expand our e-procurement footprint, there will be a limit to how far we can go without disadvantaging local suppliers*'. This position was confirmed when a focus group was held with one Executive Agency's [**#5**] suppliers, one of whom argued that small rural suppliers would not be able to afford the '*considerable investment to e-enable our systems*'.

In common with e-tendering, another frequently cited inhibitor of the adoption of more sophisticated e-procurement technologies was lack of suitable in-house procurement skills: '*any future expansion of e-procurement will require either the use of external experts/advisors or the recruitment of highly skilled and experienced procurement staff, both of which would be challenging in an ever increasing cost sensitive environment*' [Director of Resources - **#2**].

6.0 E-Procurement through the lens of Institutional Theory.

The primary aim of this study was to identify those factors that affect the uptake and application of e-procurement within the public sector. From the analysis of the results of this study, presented in the previous section, it is very clear that the level of uptake is still some way from the levels anticipated and recommended in the various governmental reports, commissioned well over a decade ago [e.g. NAO, 1999; Byatt, 2001]. The case study organisations have all made good progress in implementing BACS, and intend to adopt a range of other technologies, in due course, but overall progress has been slow. It has also

been shown that there is a high degree of agreement about the specific factors that have affected this level of adoption, of each individual technology. The case organisations are all experiencing significant problems with their manual procurement processes, and can clearly see the benefits to be realised from the implementation of a more complete e-procurement infrastructure. However, there are a number of significant factors that are impeding their plans, particularly in terms of resistance to change, the lack of appropriate skills and capabilities, and a reluctance to tamper with established ways of working. Such inhibitors may be particularly apparent in public sector organisations, in which the presence of a physical paper trail is often perceived as being the best way of ensuring the accountability of processes, due to their strong bureaucratic cultures [Olsen, 2006]. In summary, we see a group of organisations displaying a remarkable degree of homogeneity in terms of their response to the growing availability of e-procurement technologies. Consequently, these governmental agencies need to decide whether they should make an immediate commitment to e-procurement, and proactively address the inhibitors as an integral part of the project, or whether it would be more prudent to make the organisational processes, infrastructure and culture more conducive to e-procurement prior to embarking on any major investments.

Whilst it might appear that each organisation's destiny, with respect to its adoption of e-procurement, rests within its own hands, the application of the lens of '*Institutional Theory*' suggests that its fate might be more closely tied to that of other public sector organisations, than might be expected. This high degree of homogeneity can be explained, in terms of DiMaggio & Powell's [1991] isomorphic pressures, as discussed below:

i. **Coercive Isomorphism:** Organizational procedures, behaviours and structures are often strongly influenced by the demands of actors on whom the organization is dependent for resources, or even from outright regulation and mandates. In Teo et al's study [2003] of EDI adoption, coercive pressures were perceived to be most likely to emanate from key customers, suppliers or even a parent company, but in a public sector context, the government is likely to be the most significant source of pressure. In our study stakeholders were acutely aware of the pressures being exerted through public policy, and it is, therefore, likely that the speed of adoption will accelerate in the years to come. The government wants to see far higher levels of automation and integration within public sector procurement processes [Byatt, 2001] and will take steps, probably through a mixture of incentives and regulation, to ensure that their vision comes to pass. For example, initiatives such as '*Beacon Councils*' are used to identify, reward and ultimately promote the work of 'excellent public sector organisations, so that best practices are disseminated throughout the sector [Ashworth et al, 2007]. More specifically, the government has been actively encouraging the development of '*Centres of Procurement Expertise*' [OEP, 2009].

ii. **Normative Isomorphism:** DiMaggio & Powell [1991] have argued that normative pressures typically arise from a process of socialisation, which predisposes organisational stakeholders to perceive certain types of behaviour as legitimate. Whilst socialization occurs through interactions between employees within an organisation, it is more commonly associated with relationships between individuals in professional networks. As Teo et al [2003] note normative pressures could arise from '*members of dyadic relational channels and multilateral organizations such as professional, trade, and industry organizations*'. In the context of public sector procurement, it is probably unlikely that any normative pressures will be exerted through networks of governmental employees. However, as public sector procurement professionals are likely to mix and interact with

their counterparts in the private sector, it seems probable that over time, such pressures may start to have some affect. Moreover, the processes of normalisation might be given a boost within the public sector by the desire to improve the degree of professionalism within their procurement operations, as explicitly witnessed in three cases [#3-5]. As one Procurement Officer noted [**#3**]: *'I feel that in order to professionalise procurement across the Council we need to address some of the basic weaknesses, one of which is lack of formal procurement qualifications'*. As yet, there is limited evidence to support this proposition [**#2**], but it is likely that in the coming years, normative pressures will result in the more widespread adoption of e-procurement, throughout the public sector.

iii. **Mimetic Isomporphism:** Such pressures typically arise from the drive to play it safe, and reduce uncertainty. Under conditions of uncertainty, imitating successful peers is typically seen as the safest strategy. Davila et al [2003] suggest that the widespread adoption of e-procurement '*will only accelerate as aggressive adopters share their experiences*'. Because of the relatively low levels of e-procurement adoption amongst public sector organisations, there aren't as yet many early adopters that can be followed, and therefore the 'safest' strategy is for organisations to stick to their existing manual or semi-automated processes, until more tried and tested solutions become available, and are proven within a public sector context. However, it would seem likely that as the coercive pressures really start to bite, then there should be more successful role models for other organisations to mimic, which will help to promote the wider adoption of e-procurement amongst governmental agencies.

As is the case in many organisational contexts, our case organisations are confronting '*competing rationalities*' [Townley, 2002] or '*institutional logics*' [Reay & Hinnings, 2009], which help to explain why their uptake of e-procurement technology, thus far, can be characterised as sluggish. More specifically, the strong, coercive pressures to adopt e-procurement, being applied through government policy, are being held in check by the mimetic and normative influences, which favour '*business as usual*'. However, in the longer term, it seems likely that as more organisations adopt procurement technologies, and as the experiences of e-procurement spread from private to public sector professionals, then the coercive, normative and mimetic pressures will become better aligned, to ensure that the government's e-procurement agenda is more widely adopted.

7.0 Concluding Remarks

Government agencies are beginning to recognise the enormous potential offered by the Internet, in general, and e-procurement systems in particular. However, despite the growing interest in this subject, there has, to date, been very little literature that explicitly addresses the role and adoption of e-procurement within the public sector. This paper makes an important contribution to the literature, by providing a timely progress report on the adoption and uptake of e-procurement within central and local government agencies. Moreover, this study has helped to provide important new insights into the common factors that are influencing the behaviour of public sector organisations in their adoption of e-procurement technologies. In particular, this study has helped to demonstrate that there is a clear case for e-procurement adoption, amongst public sector organisations, because of the very significant problems they are currently experiencing with their existing practices, and the potential

benefits to be realised through greater automation, However, due to the strength and spread of inhibiting factors that are aligned against e-procurement adoption, it has been shown that governmental agencies are not rushing to adopt wide ranging e-procurement platforms.

In addition to the providing a timely update on the state of e-procurement, within the public sector, a further important contribution to the literature has been made through the application of '*Institutional Theory*' to this domain is novel, and has engendered a number of interesting insights. For example, the use of Institutional Theory has helped to explain why governmental agencies' are not completely free agents when it comes to their e-procurement strategies, as these are significantly affected by as variety of shared institutional factors / pressures, rather than being primarily determined by the organisation's own specific needs and agendas. Consequently, what we are seeing in this case organisation is a growing tension between internal and external factors. There are many strong internal forces of inertia, resisting change and generally limiting the adoption of e-procurement technologies, whilst a range of external, institutional factors are encouraging the wider adoption of these technologies.

The results of this study have important implications for the on-going adoption of e-procurement within public sector organisations. Firstly, they will help individual organisations to better understand their current situations and the barriers that will need to be overcome before they can significantly expand their adoption and integration of e-procurement technologies. Secondly, this study should help inform and shape public policy so that it is better able to support the current electronic purchasing agenda. This study may also have important implications for researchers. Our research model has proved to have been a suitable tool for focussing data collection, as well as an appropriate framework for presenting and discussing our findings. It is envisaged that the constructs used in this study might be usefully adopted in future research.

Finally, it is important deliver a health warning with respect to the findings presented in this manuscript: they are provisional and exploratory. As, at this stage, we have only conducted five case studies, albeit in-depth and rich studies, and consequently it is difficult to make any clear generalisations with regard to the uptake of e-procurement. It should also be noted that as the majority of the data was collected by a researcher, who was also adopting a consultancy role, it may be that this has some influence on the sample of cases that were ultimately studied. Consequently there is much scope to build upon the results of this study by exploring the uptake and adoption of e-procurement, in the public sector, but using a variety of different sampling, data collection and data analysis methods.
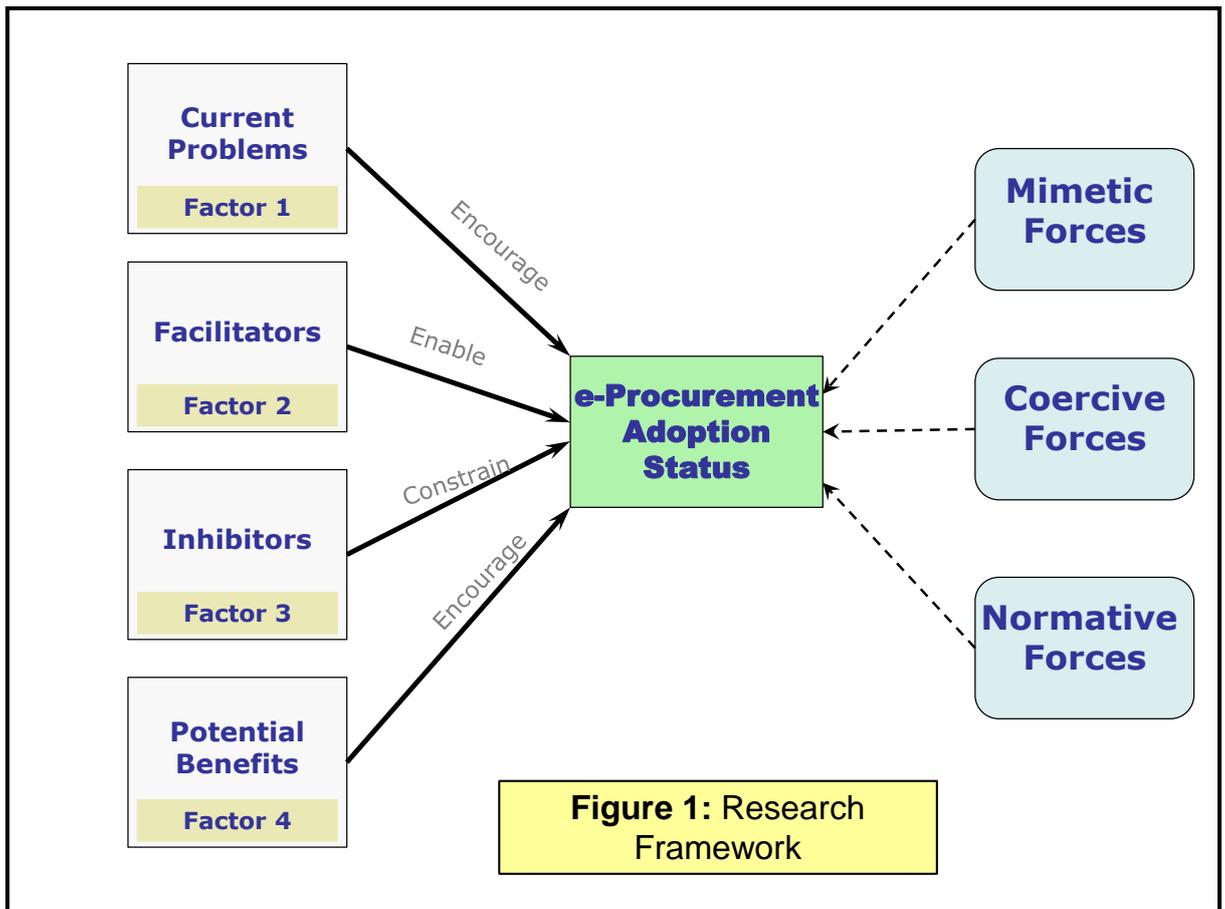
References

1. Arlbjørn, J.S. & Freytag, P. V. (2012) "Public procurement vs private purchasing: Is there any foundation for comparing and learning across the sectors?", *International Journal of Public Sector Management*, **25** (3), pp.203 - 220

2. Ashworth, R., Boyne, G. & Delbridge, R. (2007) "Escape from the Iron Cage? Organisational change and isomorphic pressures in the public sector'. *Journal of Public Administration and Theory*, **21**, pp 165-187.

3. Bartezzaghi, E. and Ronchi, S. (2004) 'A portfolio approach in the e-purchasing of materials', *Journal of Purchasing & Supply Management*, **10**, pp 117-126.

4. Byatt, I. (2001) *Delivering Better Services for Citizens – A review of Local Government procurement in England.*

5. Cousins, K. C. and Robey, D. (2005) "The social shaping of electronic metals exchanges: an institutional theory perspective", *Information Technology & People*, **18** (3) pp.212 - 229

6. Croom, S.R., (2001) "Restructuring supply chains through information channel innovation", *International Journal of Operations & Production Management*, **21**, November, pp 504-515.

7. Croom, S.R. and Brandon-Jones, A. (2005) "Key issues in e-procurement: procurement implementation and operation in the public sector", *Journal of Public Procurement*, **5**(3), pp. 367.

8. Croom, S.R. and Brandon-Jones, A. (2007), "Impact of E-procurement: experiences from implementation in the UK public sector". *Journal of Purchasing & Supply Management*, **13**, pp. 294–303.

9. Croom, S. and Johnston, R. (2003) "E-service: enhancing internal customer service through e-procurement". *International Journal of Service Industry Management*, **14** (5), pp. 539 – 555.

10. D for C&LG (2008) *The National Procurement Strategy for Local Government – Final Report: Towards public service transformation*, Department for Communities and Local Government, London.

11. Davila, A., M. Gupta and R. Palmer (2003). "Moving procurement systems to the Internet: The adoption and use of e-procurement technology models." *European Journal of Management*, **21** (1): 11-23.

12. Deephouse, D., and Suchman, M. (2008). "Legitimacy in organizational institutionalism," In R. Greenwood, C. Oliver, K. Sahlin-Andersson, and R. Suddaby, eds., *Handbook of Organizational Institutionalism* (London: Sage, pp. 49–77).

13. DiMaggio, P. and W. Powell (1983). "The iron-cage revisited: Institutional isomorphism and collective rationality in organizational fields." American Sociological Review **38** (2): 147-160.

14. DiMaggio, P.J. and Powell, W.W. (1991) "Introduction." in *The New Institutionalism in Organizational Analysis*, Powell, W.W. and DiMaggio, P.J. [Eds]. Chicago: Univ of Chicago Press, pp. 1–38.

15. Doherty, N.F. and Ellis-Chadwick, F.E. (2009) "Exploring the Drivers, Scope and Perceived Success of E-commerce Strategies in the UK Retail Sector", *European Journal of Marketing*, **43**(9/10), pp 1246-1262.

16. Doherty, N.F. and McAulay, L., (2002) "Towards the Formulation of a Comprehensive Framework for the Evaluation of Investments in Sell-Side e-Commerce", *Evaluation and Program Planning*, **25**, pp 159-165.

17. Eisenhardt, K. (1989), "Building theories from case study research", *Academy of Management Review*, Vol. 14 No. 4, pp. 532-50.

18. Essig, M. and Arnold, U., (2001) "Electronic procurement in supply chain management: an information economics based analysis of electronic markets, *Journal of Supply Chain Management*, **37** (4), pp 43 – 39.

19. Frumkin, P. and Galaskiewich, J. (2004) "Institutional Isomorphism and Public Sector Organisations". *Journal of Public Administration Research and Theory*, **14** (3), pp. 283-304.

20. Gebauer, J. Beam, C. and Segev, S., (1998) "Impact of the internet on procurement", *Acquisition Review Quarterly*, **5**(2), pp 167-184.

21. Gunasekaran & Ngai, (2008) "Adoption of e-procurement in Hong Kong: An empirical research", *International Journal of Production Economics,* **113** (1), pp 159-175

22. Hawking, P and Stein, A. (2004) "E-procurement: Is the ugly duckling actually a swan down under", *Asia Pacific Journal of Marketing and Logistics,* **16** (1), pp. 3-26.

23. Liu, H., Ke, W., Wei, K. K., Gu, J., & Chen, H. (2010)"The role of institutional pressures and organizational culture in the firm's intention to adopt internet-enabled supply chain management systems, *Journal of Operations Management*, **10**, pp. 372-384.

24. Min, H. and Galle, W. P. (2003) "e-purchasing: profiles of adopters and non-adopters", *Industrial Marketing Management*, **32**, pp 227-233.

25. McIvor, R; McHugh, M; and Cadden, C., (2002) "Internet technologies: supporting transparency in the public sector", *International Journal of Public Sector Management*, **15** (3) pp. 170-187.

26. Miles, M.B. and Hubermann, M. (1994) *Qualitative Analysis Design* (2nd Edition), Sage Publications, London.

27. Moon, M. (2005), "E-procurement management in state governments: diffusion of e-procurement practices and its determinants", *Journal of Public Procurement*, **5** (1), pp. 54-62.

28. More, E. & McGrath, M. (2001) "An Australian case in e-health communication and change", *Journal of Management Development*, **21** (8), pp 621-632.

29. Muffato, M. and Payaro, A., (2004) "Implementation of e-procurement and e-fulfilment processes: A comparison of cases in the motorcycle industry". *International Journal of Production Economics*, **89**, pp 339-351.

30. Murray, J.G. (2009), "Improving the validity of public procurement research", *International Journal of Public Sector Management*, **22** (2), pp.91-103

31. National Audit Office [NAO],(1999) *Modernising Procurement*, HMSO, London,.

32. Olsen, J P. (2006) "Maybe It Is Time to Rediscover Bureaucracy." *Journal of Public Administration Research and Theory,* **16** (1): pp. 1–24.

33. Operational Efficiency Programme [OEP], (2009) *http://www.hm-treasury.gov.uk/press_40_09.htm*.

34. Reay, T., & Hinings, C. R. (2009). Managing the rivalry of competing institutional logics. *Organization Studies*, **30** (6), pp. 629–652.

35. Riege, A.M. (2003) "Validityand reliability tests in case study research: a literature review with 'hands-on'apllications for each research phase", *Qualitative Market Research: An International Journal*, **6** (2), pp 75-86.

36. Sanders, N.R. (2007) "An empirical study of the impact of e-business technologies on organizational collaboration and performance," *Journal of Operations Management,* **25** (6), pp 1332-1347

37. Schoenherr, T. and Tummala, V.M.R., (2006) "Electronic Procurement: a structured literature review and directions for future research". *International Journal of Procurement Management*, **1** (1/2), pp. 8-37.

38. Scott, W.R. (2008) *Institutions and Organizations: Ideas and Interests*, Sage Publications, Inc.

39. Soares-Aguiar, A. and Palma-dos-Reis, A., (2008) "Why do firms adopt eprocurement systems? Using logistic regression to empirically test a conceptual model," *IEEE Trans. Engineering Management.*, **55** (1), pp. 120–133.

40. Spiller, P. (2008) "An institutional theory of public contracts: Regulatory implications." NBER Working Paper 14152.

41. Strauss, A. and Corbin, J. (1990) *Basics of qualitative research: grounded theory procedures and techniques.* London: Sage.

42. Tai, Y., Ho, C. and Wu, W (2010) "The performance impact of implementing Web-based e-procurement systems", *International Journal of Production Research*, **48**(18), pp.5397-5414.

43. Teo, H.H., Wei, K.K. & Benbasat, I. (2003) "Predicting Intention to Adopt Inter-organizational Linkages: An Institutional Perspective", *Management Information Systems Quarterly*, **27**(1), pp. 19-49.

44. Teo, T.S.H., Lin, S. and Kee-hung, L., (2009) "Adopters and non-adopters of e-procurement in Singapore: An empirical study", *Omega*, **37**, pp 972 – 987.

45. Tolbert, P. and Zucker, L. G. (1996) "The Institutionalization of Institutional Theory." in Stewart R. Clegg, Cynthia Hardy, and Walter R. Nord, eds., *Handbook of Organization Studies*. London, U.K.: Sage Publications, Pp. 175-190.

46. Tonkin, C. (2003)"E-Procurement in the Public Sector: Story, Myth and Legend", paper presented to The Policy Institute, Trinity College Dublin.

47. Townley, B. (2002). 'The Role of Competing Rationalities in Institutional Change'. *Academy of Management Journal* .Vol. 45, 1, 163-179.

48. Trkman, P.; and McCormack, K.; (2010) "Estimating the Benefits and Risks of Implementing E-Procurement," *Engineering Management, IEEE Transactions on* , **57**(2), pp.338-349.

49. Wejnert, B. (2002). "Integrating models of diffusion of innovations: A conceptual framework." *Annual Review of Sociology*, **28**: pp. 297-326.

50. Wirtz, B. Uthe, S. and Schierz, P. G. (2010) "An empirical analysis of the acceptance of e-procurement in the german public sector" *International Journal of Public Administration*, **33** (1), pp. 26 – 42.

51. Yin, R. K., (2009) *Case Study Research*, Sage Publications: Thousand Oaks: California.

Figure 1: Conceptual model – key influences upon e-procurement adoption

Current Problems	
Factor 1	

Facilitators	
Factor 2	

Inhibitors	
Factor 3	

Potential Benefits	
Factor 4	

Encourage

Enable

Constrain

Encourage

e-Procurement Adoption Status

Mimetic Forces

Coercive Forces

Normative Forces

Figure 1: Research Framework
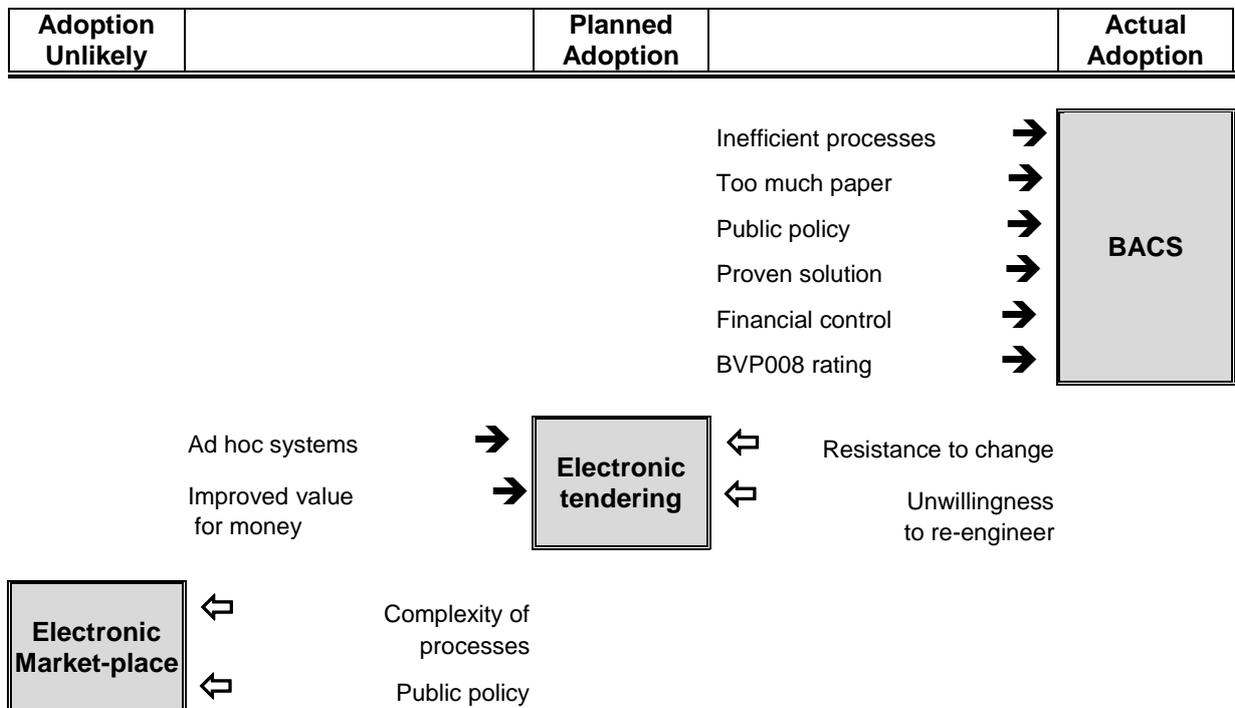
Figure 2: The key technologies, used to support the procurement process

Publicatio	Tendering	Award	Contract	Ordering	Payment
e-notification	e-tendering	e-awarding	e-contract	e-PO processing	BACS
	e-requisitioning			P Cards	
	Electronic auctions			e-catalogues	e-invoicing
				e-marketplaces	

Table 2: Adoption Progress amongst Participating Organizations

e-Procurement Technology	Pilot	Case 1	Case 2	Case 3	Case 4
i. e-notification	Adopted	Planned	Adopted	Planned	Adopted
ii. e-tendering	Planned	Planned	Planned	Planned	Planned
iii. e-auctions	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely
iv. e-requisitioning	Planned	Planned	Planned	Adopted	Planned
v. e-awarding	Planned	Planned	Planned	Planned	Planned
vi. e-contract	Planned	Planned	Planned	Planned	Planned
vii. e-PO processing	Planned	Planned	Planned	Adopted	Planned
viii. e-catalogues	Planned	Planned	Planned	Planned	Planned
ix. e-marketplaces	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely
x. e-invoicing	Unlikely	Unlikely	Unlikely	Adopted	Planned
xi. BACs	Adopted	Adopted	Adopted	Adopted	Adopted
xii. P-cards	Unlikely	Unlikely	Adopted	Planned	Adopted

Figure 3: Key Drivers and Inhibitors of Electronic Procurement Adoption.

Adoption Unlikely		Planned Adoption		Actual Adoption

Inefficient processes →
Too much paper →
Public policy →
Proven solution →
Financial control →
BVP008 rating →

BACS

Ad hoc systems →
Improved value for money →

Electronic tendering

⇐ Resistance to change
⇐ Unwillingness to re-engineer

Electronic Market-place

⇐ Complexity of processes
⇐ Public policy

Key: → Drivers [Problems, benefits & facilitators]; ⇐ Inhibitors

Appendix A: Profiles of Participating Organizations

Case	Case Description
Local Government – an urban unitary authority [**#1**].	This council is responsible for the delivery of front-line services [property; social services; education; highways, transport and waste management etc], to the 600,000 citizens it serves.
Local Government – a Small City Council [**#2**];	This two tier authority provides its citizens with a range of services through a mixed economy of service provision [partnerships, joint ventures, outsourcing etc.].
Local Government – a County Council [**#3**];	This rural unitary authority provides a range of services including education, social services, highways (including roads, transport and waste) and community (including cultural, environmental and planning).
Central Government – a Non Departmental Public Body [**#4**]	This case study is an organisation established by a central Government Department to provide a range of housing services across a largely rural area. The organisation's key areas of purchasing expenditure are: property services; housing services; and corporate services.
Central Government – a Non Departmental Public Body [**#5**]	This executive agency provides a range of services in relation to public infrastructure and as such a significant amount of expenditure in relation to operational activities.