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CORPORATE GOVERNANCE OF IT: A CASE STUDY IN AN AUSTRALIAN GOVERNMENT DEPARTMENT

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Abstract

Harnessing the power from Information Technology (IT) has been a focus of research and practice for many decades, yet statistics show that many organizations are yet to fully realize the value from investment in IT. Whilst numerous frameworks and standards have been published to help organizations achieve value from IT investment, research demonstrating whether newer standards have manifested success is scarce. Thus, the objective of this paper is to investigate, through a case study, how Corporate Governance of IT (CGIT) is practiced in a large, complex, not-for-profit setting like the Australian Federal Government. In doing so the study assesses the relationship between the governance practices deployed in a large scale IT project in this setting, and the ISO/IEC 38500 standard that deals with CGIT. Findings indicate the presence of governance practices, but the need for more, particularly in ISO/IEC 38500’s monitoring task. The study also demonstrates the practical value of using an IT governance standard in a real world setting, and in this way contributes to Design Theory.

Keywords: ISO/IEC 38500, Corporate Governance of IT, Case Study, Design Theory.
1 INTRODUCTION

Information Technology (IT) pervades social and commercial systems (Bruque et al., 2008). For many organizations it is a fundamental business tool required to perform daily operations effectively. Whilst there are many motivators that support the adoption of IT including: the lure of achieving cost efficiencies; and methods to handle time constraints, deal with customer expectations, and facilitate supplier relationships, research suggests that a primary concern for organizations is maximising the potential value of IT investments (Kohli and Grover, 2008). Here many fail to fully realize return on investment in technology resulting, in some cases, in adverse effects including stock market crashes (Barboza, 2007), airline delays (Rosencrance, 2009) and even bankruptcy (Computergram International, 1998). As negative outcomes associated with IT investments are attributed to “emphasis on the technical, financial and scheduling aspects of IT activities rather than emphasis on the whole business context of IT use” (ISO/IEC 38500, p.v), principles that are capable of guiding directors in evaluating, directing and monitoring IT use can assist. Herein the international standard ISO/IEC 38500 ‘Corporate Governance of Information Technology’ plays a role. Through a framework this standard aids those at “the highest level of organizations to understand and fulfil their legal, regulatory, and ethical obligations in respect of their organizations’ use of IT” (ISO/IEC 38500, p.v).

In doing so the standard conveys the message that the responsibility for IT should lie with the entire executive management team, not just with the CIO.

Whilst the standard is designed to be applicable to all organizations, regardless of size, purpose, design and ownership, there is little research that investigates its application in a not-for-profit public sector context. Yet, a recent review of IT investment in a public sector context revealed a perception that high rates of failure relate to: (1) more large projects; (2) often directly impacts the public or business; (3) scrutiny through a public audit body; (4) parliamentary attention; and (5) media coverage (Gershon, 2009).

Given studies on large-scale investments have shown that IT-enabled change is wasted, challenged or fails to bring a return to the enterprise (Val IT, 2008 p.7); and projects greater than $10 million dollars have a success rate of 2% (Standish Group, 2004), investigation of how IT should be effectively governed, structured and managed in this context is pertinent. Furthermore, as organizations progress and look to certification to the standard (when available), knowledge regarding practice becomes crucial. Recent analysis of the issues affecting the Australian Federal Government’s investment and management of Information and Communication Technology (ICT) showed a need for improvement in six areas: (1) ICT governance; (2) efficiencies of ICT operations; (3) skills base management; (4) data centre planning; (5) interaction with industry; and (6) sustainability of ICT operations (Gershon, 2008). These confirm the importance of knowledge that is practice-oriented.

The challenge is that ICT governance in the public sector is harder for five reasons:

(1) Complexity – i.e. 4+ dimensional world and increasing demand for ‘joined up’ projects;
(2) Initiatives – i.e. emphasis on announcements and initiatives can proliferate with little or no integration and prioritization;
(3) Culture – i.e. ‘make decisions correctly’ v ‘make the right decisions’;
(4) Learning from experience – i.e. weak institutionalized learning; and
(5) Risk – i.e. focus on managing political risk vs. operational risk (Gershon, 2009).

Further, “weak governance of ICT at a whole-of-government level and very high levels of agency autonomy, characterized by an ability to self-approve opt-ins to existing whole-of-government ICT arrangements, leads to sub-optimal outcomes in the context of prevailing external trends, financial returns, and the aims and objectives of this Government” (Gershon, 2008 p.iii). These issues make exploration of governance practices in this context important.

Our paper is organized as follows. After reviewing literature about Corporate Governance of IT (CGIT), the standard, tools and frameworks available to assist, and Design Theory, we outline our research method and context. We then present findings that illustrate how the standard can provide a practice-oriented aid for assessing IT governance. Finally we present some discussion of the findings, outline our limitations and opportunities for future research before concluding the paper.
2 LITERATURE REVIEW

As the “modern style of globalization, with its massive, rapid, and precise flows of products and services, would simply not be possible without today’s information and communications technologies” (McAfee 2009, p.225), organizations have placed greater emphasis on strategically using IT to build capability and improve business value. Whilst organizations have expended much effort in creating agile structures, accompanying processes and governance mechanisms, the emergence of new standards creates the need for research that understands their use. Consequently, this study explores the link between CGIT and its practice in a large, complex, not-for-profit setting like the Australian Federal Government, through the filter of ISO/IEC 38500. Through this practical study we contribute to Design Theory.

2.1 Corporate Governance of IT (CGIT)

Corporate governance, which has been driven by the imperative to manage firms’ operations more effectively in order to meet shareholder expectations for financial and environmental prudence, reputation, competitive edge and risk management, is the system which directs and controls organizations (adapted from Cadbury, 1992 and OECD, 1999). Recent corporate collapses, the global financial crisis and compliance requirements like Sarbanes Oxley and the Basel Accord have renewed interest in corporate governance to facilitate data quality and integrity of business transactions, business processes and decisions. Derived from corporate governance, CGIT is defined in the standard as the “system by which the current and future use of IT is directed and controlled” (ISO/IEC 38500, p.3). This involves “evaluating and directing the use of IT to support the organization and monitoring this use to achieve plans. It includes the strategy and policies for using IT within an organization” (ISO/IEC 38500, p.3). Thus, corporate governance lays the foundation for many standards, tools and frameworks that underpin the CGIT.

2.2 Standards, Tools and Frameworks

Under the auspices of the IT Governance Institute (ITGI) and its British counterpart ITIL\(^1\), several tools, frameworks and standards have evolved that assist firms to maximize potential from their IT applications. These include: Val IT, COBIT, Risk IT, ITIL, ISO/IEC 27001 and others.

- Val IT provides “enterprises with the structure they require to measure, monitor and optimise the realization of business value from investment in IT” (Val IT 2008, p.6).
- COBIT\(^2\) “provides a comprehensive framework for the delivery of high-quality information technology-based services” (Val IT 2008, p.6).
- Risk IT is a framework for enterprises to identify, govern and manage IT risk (ITGI, 2009).
- ITIL is designed to assist firms in developing a framework for IT service management by providing them with “consistent and comprehensive documentation of best practice for IT Service Management” (ITIL, 2009).
- ISO/IEC 27001:2005 is an information security management system standard that brings information security under the explicit control of management.
- Other frameworks/tools include: organization specific ones, consultant-defined ones, CMMI, Prince 2, COSO and ISO17799 (PriceWaterhouseCoopers, 2006).

Whilst these tools and frameworks have often been deployed by organizations to assist them in better governing their IT a new standard, ISO/IEC 38500, derived from the Australian standard AS8015:2005, provides a coherent framework to ensure that the board is appropriately involved in the effective governance of IT. However, as it is a new standard there is little research that reports on its application.

\(^1\) (Information Technology Infrastructure Library)
\(^2\) or Control Objectives for Information and related Technology
2.3 ISO/IEC 38500

The purpose of ISO/IEC 38500 (p.1) “is to promote effective, efficient, and acceptable use of IT in all organizations by:

- assuring stakeholders (including consumers, shareholders, and employees) that, if the standard is followed, they can have confidence in the organization’s corporate governance of IT;
- informing and guiding directors in governing the use of IT in their organization; and
- providing a basis for objective evaluation of the corporate governance of IT”.

Herein it sets out how CGIT forms part of an organization’s overall corporate governance and further how the system of CGIT spans the entire organization, right from the boardroom to the coalface. Through this ISO/IEC 38500 makes it clear that governance is distinct from management. The standard identifies the roles the governing body of the organization plays and aligns these roles with the roles described in both the OECD Principles of Corporate Governance (2004) and the Cadbury Report on Corporate Governance (1992).

As shown in Table 1, the framework covers six principles for good CGIT.

<table>
<thead>
<tr>
<th>Principle</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Responsibility</td>
<td>“Individuals and groups within the organization understand and accept their responsibilities in respect of both supply of, and demand for IT. Those with responsibility for actions also have the authority to perform those actions.”</td>
</tr>
<tr>
<td>2. Strategy</td>
<td>“The organization’s business strategy takes into account the current and future capabilities of IT; the strategic plans for IT satisfy the current and ongoing need of the organization’s business strategy.”</td>
</tr>
<tr>
<td>3. Acquisition</td>
<td>“IT acquisitions are made for valid reasons, on the basis of appropriate and ongoing analysis, with clear and transparent decision making. There is appropriate balance between benefits, opportunities, costs, and risks, in both the short term and the long term.”</td>
</tr>
<tr>
<td>4. Performance</td>
<td>“IT is fit for purpose in supporting the organization, providing the services, levels of service and service quality required to meet current and future business requirements.”</td>
</tr>
<tr>
<td>5. Conformance</td>
<td>“IT complies with all mandatory legislation and regulations. Policies and practices are clearly defined, implemented and enforced.”</td>
</tr>
<tr>
<td>6. Human Behaviour</td>
<td>“IT policies, practices and decisions demonstrate respect for Human Behaviour, including the current and evolving needs of all the ‘people in the process’.”</td>
</tr>
</tbody>
</table>

Table 1. Six Principles for Good CGIT (source: ISO/IEC 38500:2008, p.6)

These principles should be enacted through a model that encompasses three main tasks:

- Evaluate – which entails evaluating both the current and the future use of IT.
- Direct – which entails preparing and implementing the plans and policies that have been created to ensure that the way in which IT is used meets the organization’s objectives.
- Monitor – which considers how well IT conforms to policies and how well IT performs compared to the plans (see Figure 1).
Given systemic differences between public and private sector organizations, and the fact that emerging literature on related topics like the co-creation of IT value almost exclusively focuses on the experiences of organizations in the private sector (Irani and Love, 2008), investigation of experiences in public sector organizations offers new insight. Using a case study we investigate the practices of CGIT in a large government department and its private sector service providers. Herein, as the principal organization delegates work involving use of the core system to its agent counterparts, agency theory counteracts creating the potential for three problems. Firstly, conflicts may arise in the desires or goals that exist between the principal and the agent. Secondly, there is difficulty and expense associated with verifying what the agent is actually doing (Eisenhardt, 1989). Thirdly, as a result of multiple pulls and pressures on required structures (Brown and Magill, 1998; Sambamurthy and Zmud, 1999), power, legitimacy and urgency create opportunities for stakeholder influence (Mitchell et al., 1997). Stakeholders possessing all three attributes become very influential, which is evidenced in outcomes like agenda setting and decision making (Halford and Leonard, 2001; Introna, 1997; Markus, 1983). The nature of our scenario means aspects of political priorities, power, legitimacy and urgency are undoubtedly present. As governance provides mechanisms to alter stakeholder relations through new structures, processes and relational mechanisms, we explore the experiences of these practices in our chosen setting. The novelty of ISO/IEC 38500 makes this a fruitful area for research. Consequently, our research objectives were to:

- Explore how CGIT is applied in this setting.
- Understand the relationship between the practices followed in this setting and those outlined in ISO/IEC 38500.

### 2.4 Design Theory

Through exploring these objectives we propose to contribute to Design Theory. As “a normative or prescriptive type of theory – it gives guidelines or principles that can be followed in practice” (Gregor, 2002 p.17). Design Theory comprises two aspects: firstly, the theory is concerned with the methodologies and tools that are used to develop the information system (IS) and secondly; the ‘design principles’ that are “design decisions and design knowledge that are intended to be manifested or encapsulated in an artifact, method, process or system” (Gregor, 2002 p.17). Consistent with Walls et al. (1992) we consider that IS Design Theory encompasses two distinct characteristics: the first is a theoretical base and the second is an explicit set of principles that can guide practitioners. We argue that standards like ISO/IEC 38500 span the three interrelated components of Design Theory, namely a set of user requirements, system features and guiding principles. In doing so standards like this create parameters and highlight key points and processes that require consideration, which make the task more manageable and increase the chance of success. Gregor (2002) highlights some fields where Design Theory has been practised including management accounting, design science, and software engineering. We extend this to consideration of the practical value of using an IT governance standard in a real world setting.

### 3 RESEARCH METHOD AND CONTEXT

#### 3.1 Method

Using an interpretive case study approach we studied the social issues (Walsham 1995), like how CGIT was applied, together with the general “how” and “why” questions (Yin, 2003) concerning such governance practices in our chosen context involving a large government department and its private sector service providers. This permitted us to collect and subsequently analyse data relevant to our research objectives. Whilst a case study approach meant we had little control, it enabled us to focus in detail on the contemporary approaches taken and subtle interactions that took place between the firms and participants involved. Further support for the use of this method can be found in its prior use in numerous studies spanning a range of topics and issues (e.g. Orlikowski and Baroudi, 1991; Carey, 2008). Thus, the method appeared relevant for investigating evidence and practices of CGIT in our setting.
Over a two year period we collected evidence including agendas, minutes of meetings, web releases and reports, which provided us with rich data. Our focus in analyzing the data was to capture relevant interpretations as accurately as possible. As the data was available in the public domain it permitted us to position ourselves as outside observers thereby removing perceptions of us having a stake in the results. However, as analyzing qualitative data relies on interpretations and classifications imposed by those involved in the process, it is potentially subjectively biased. Consequently, we coded and analyzed the data independently, then verified and reconciled it. Thus, qualitative data was used to:

- analyze the contextual influences that impact how CGIT is applied in such settings;
- explore the variables that impact this; and
- understand current practices of CGIT compared to those outlined in ISO/IEC 38500.

3.2 Context

Our case study is part of an ongoing research project in a not-for-profit setting involving a large, complex Australian Public Sector organization. Within this setting we focused on a department called DEEWR (Department of Education, Employment and Workplace Relations), which provides and operates an Employment Services System (ESS) that “lets providers enter vacancy and jobseeker information, particulars of events in the course of assisting a jobseeker, financial records of payments they make that [the department] reimburses, and claim payments from [the department] for employment services delivered” (DEEWR, 2009a). Our focus department features in the Education, Employment, and Workplace Relations Portfolio of the Australian Federal Government. In the 2009 – 2010 financial year this portfolio had total resources to the sum of $45,199,881,000 AUD, for which the focus department had responsibility for $44,578,501,000 AUD (DEEWR, 2009b).

Whilst the focus ESS system is not new per se, having existed in some form for more than 10 years, the Australian Federal Government recently implemented a new employment system at an estimated cost of $4.9 billion AUD following extensive consultation with external users. The system took some three years to implement and provides a fresh approach to employment and recruitment. Replacing the existing ‘one size fits all approach’, the new system focuses more on the individual needs of both job seekers and employers. For job seekers the system means they receive more tailored assistance to facilitate securing employment, whilst for employers there is greater emphasis on finding work-ready and appropriately skilled job seekers through initiatives such as employer brokers.

4 RESULTS

4.1 Events Leading to Deployment of the New ESS

Outlined below is a timeline that details significant events that provided impetus for the new ESS.

2006
- Independent review revealed the system operated successfully (e.g. it was cost effective and provided government accountability), but required reinvigoration of stakeholder engagement.

2007
- Lower unemployment, widespread skill shortages and the growing number of disadvantaged job seekers meant the system was not suited. It needed to better connect staff and vacancies.

2008
- The Social Inclusion Agenda led to a review, guided by 8 principles (see below), of employment services. This determined the strategic direction of ESS and covered accountabilities, innovation and efficiency.
- The eight principles were:
  - “Early intervention to minimize the number of long-term welfare dependent Australians.;
  - Providing services that are relevant to the circumstances and needs of the job seeker;
  - Ensuring job seekers who are struggling the most get the most intensive assistance;
  - Providing meaningful incentives for training … to improve the employability;
  - Ensuring there are means for job seekers who are in need of training to get that training;
  - Providing the greatest rewards when Job Network providers find sustainable jobs .. fast ..;
  - Ensuring there is a performance management and tendering system [re]. quality ..; and
Minimizing the amount of time and money spent on administration” (DEEWR 2009a).

• January 2008 – The Minister for Employment Participation, Hon Brendan O’Connor MP, wrote to employment service providers, employers, welfare organizations and other stakeholders, seeking views on the future direction of ESS. This generated 260 submissions. As part of this review reports from the Auditor General were also considered.

• This review led to meetings and consultation with these groups, satisfaction surveys with job seekers, and program evaluations. It highlighted stakeholders were critical of the systems:
  o complexity and poor functionality;
  o inhibiting capacity to successfully service job seeker needs;
  o design, which suggested that it needed to be “designed around the needs of the many hundred of thousands of people it affects, rather than a ridiculously complex set of contractual and other rules and business process models and information technology systems which constrain the people working at the front line and limit their ability to exercise their judgment and use discretion” (Jobs Australia); and
  o ill functioning electronic auto-matching functionality.

• The deficiencies outlined above highlighted opportunities to create better integration between the ESS, different information systems and work practices used within the employment service providers. Another important factor was the overlooked opportunity to co-create economic value by matching people skills with appropriate positions.

• May 2008 – A discussion paper was released highlighting (see Table 2 below).

<table>
<thead>
<tr>
<th>Current System Shortcomings</th>
<th>New System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poorly targeted assistance</td>
<td>Redistributing assistance to the most highly disadvantaged and giving wider access to the EPF</td>
</tr>
<tr>
<td>Continuum too rigid</td>
<td>An EPP based on the needs of the individual job seeker</td>
</tr>
<tr>
<td>Lack of incentives for skills and training in areas of skills shortages</td>
<td>Bonus on outcomes achieved after accredited training and 238,000 training places</td>
</tr>
<tr>
<td>Employment services too complex and fragmented</td>
<td>Combining seven contracts into one</td>
</tr>
<tr>
<td>Excessive red tape</td>
<td>Streamlined programs and simplified EPF administrative arrangements</td>
</tr>
<tr>
<td>Insufficient employer focus</td>
<td>Higher outcome payments for provider brokered outcomes and creation of specialist employer brokers</td>
</tr>
<tr>
<td>Inadequate services for remote job seekers</td>
<td>1.7 multiplier for service fees and EPF to reflect broader definition of outcomes to encourage further education</td>
</tr>
<tr>
<td>Under-utilized JSA</td>
<td>More flexible use of EPF</td>
</tr>
<tr>
<td>A counterproductive compliance system</td>
<td>More work like compliance systems based on ‘No Show, No Pay’</td>
</tr>
<tr>
<td>Performance management</td>
<td>Streamlined contract management and monitoring based on a Charter of Contract Management (to be developed with providers)</td>
</tr>
<tr>
<td>Unsuitable IT system</td>
<td>IT system to be rebuilt in consultation with users</td>
</tr>
</tbody>
</table>

Key:  EPF Employment Pathway Fund; EPP Employment Pathway Plan

Table 2.  Shortcomings with the Current ESS (source: DEEWR, 2009a)

• This generated 190 submissions and led to public consultations. A co-driver in these discussions was the government’s directive to redevelop the department’s employment services and IT systems, which sought to address new policy requirements surrounding employment services together with business needs, including ease of use and operational support of Employment Service Providers (DEEWR 2009a). Consultations included information sessions with provider CEOs, web conferencing and face to face sessions.

• Consultations culminated in an “Exposure Draft of Purchasing Arrangements for the new Employment Services” (released Friday 1 August 2008; DEEWR, 2009a).

2009

• New system released representing an investment of $4.9 billion.
4.2 Application of CGIT in Our Case Study

As we sought to explore how CGIT was applied in our case study, we looked at the foundations of governance, which requires a mixture of structures, processes and relational mechanisms (De Haes and Van Grembergen, 2006). As outlined in the Introduction, Gershon’s (2008) report of the Australian Federal Government’s investment and management of ICT highlighted weak levels of governance of ICT, leading to sub-optimal outcomes. Thus, as deployment of the ESS system was a government mandate that was shaped by The Social Inclusion Agenda, attention was given to strategic fit. Herein DEEWR introduced control through a transparent and efficient model of governance. Whilst the size and spread of the system’s operation created some challenges, strategies were put into place to ensure all voices were heard. In doing so DEEWR sought to handle the pushes and pulls from its multiple strategic stakeholders (Brown and Magill, 1998; Sambamurthy and Zmud, 1999). Instances of the structures, processes and relational mechanisms that DEEWR used, included (but were not limited to):

**Structures**
As a critical success factor in deploying CGIT is the commitment of senior executives, DEEWR was strategic in involving the Group Manager, who was heavily involved in the deployment process. Further, they established an advisory group and a transition reference group. These structures created an environment in which conflicting priorities could be rationalized and appropriate strategies put in place to achieve positive outcomes for the organization. Further, throughout the development of the system agents were called upon to voice issues and the tender process sought providers to have an IT contact person. These structures undoubtedly contributed to the timely delivery of the system. However, one reporting structure that wasn’t obvious was CIO reporting. Given IT management are typically thought of as important players in instituting CGIT, this was interesting.

**Processes**
Processes usually involve planning, implementation and monitoring. In this case study we found some evidence of strategic planning such as a consultation plan, but the alignment with objectives seemed to be one-sided and obvious assessment of business value seemed to be lacking. In part this may be an outcome of the financial resources for the project being primarily one-sided.

**Relational Mechanisms**
Like structures and processes, relational mechanisms are an essential component of CGIT. Their focus is in ensuring alignment between the business itself and the technology being deployed. In our case study consultation sessions involving all stakeholders and renewed training for service providers were vital relational mechanisms.

These elements featured in the relationship between DEEWR’s intentions behind deployment of the new ESS system and facets of ISO/IEC 38500.

4.3 Relationship between Intentions of Deployment and ISO/IEC 38500

Leveraging the six principles for good CGIT outlined in ISO/IEC 38500 (see Section 2.3) and drawing on the foundational mixture of structures, processes and relational mechanisms, we mapped illustrations of these present in the case study (see Table 3). In doing so we demonstrate the practical value of using an IT governance standard in a real world setting and in this way contribute to Design Theory, extending it to a new setting.
<table>
<thead>
<tr>
<th>Principle</th>
<th>Evaluate</th>
<th>Direct</th>
<th>Monitor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Responsibility</td>
<td>• Establishment of an advisory board&lt;br&gt;• Agents involved via public consultations</td>
<td>• Advisory board established new role out and a transition reference group facilitated changeover&lt;br&gt;• Direction provided through boards/groups&lt;br&gt;• No obvious CIO reporting, but a gov. mandate</td>
<td>• Regular ES IT Advisory Group meetings reviewed/advised on progress to advisory board&lt;br&gt;• No obvious CIO reporting, but project was important as it was a gov. mandate</td>
</tr>
<tr>
<td>2. Strategy</td>
<td>• New ES = gov. mandate to ↑ employment part., address skills in demand &amp; sustainable emp.&lt;br&gt;• Gov. needed to ensure all functions in the new ES were supported in the redeveloped ESS&lt;br&gt;• Agents were invited to respond to the Minister’s call on ES future direction – &gt;260 submissions&lt;br&gt;• Limited priorities for reengineering were based upon feedback – but driven by gov. requirements</td>
<td>• ESS arose from reviewing the gov’s social inclusion agenda + deficiencies with ES&lt;br&gt;• Consult: CEO, face-to-face &amp; live meet sessions&lt;br&gt;• Provider consultation via a 3rd Party Software and Data Integration Survey&lt;br&gt;• Public consultations with providers &amp; stakeholders&lt;br&gt;• All ES functions supported in redeveloped ESS&lt;br&gt;• Feedback via the transition reference group</td>
<td>This was evidenced by:&lt;br&gt;• The project being deployed on-time&lt;br&gt;• Gov. and provider requirements being addressed&lt;br&gt;• Regular advisory board meetings which reviewed feedback on discussion papers, consultation sessions and monitored progress&lt;br&gt;However, there no obvious assessment of business value</td>
</tr>
<tr>
<td>3. Acquisition</td>
<td>• Tender process: ES to have an IT contact person&lt;br&gt;• Gov. mandate, therefore guaranteed budget of $4.9 billion over the next 3 years</td>
<td>• Appropriateness via public and advisory boards, a discussion paper, exposure draft, job seeker sat. surveys, program evals and auditor-gen. reps</td>
<td>Historically systems were evaluated infrequently&lt;br&gt;Following ESS roll-out, there weren’t any obvious reviews against business strategy/investment mix</td>
</tr>
<tr>
<td>4. Performance</td>
<td>• Current system was basis for the new ESS, so analysis of deficiencies formed a base line&lt;br&gt;• Advisory board planned, resourced and commissioned the project&lt;br&gt;• Renewed training of service providers was seen as a risk</td>
<td>• Redev. funded by gov’s Social Inclusion Agenda&lt;br&gt;• Roll-out was built on gov. public IT services, assets and resource portfolios&lt;br&gt;• New ESS refers eligible job seekers to providers efficiently &amp; sensitively + providers have give&lt;br&gt;• No evidence of a budget based on full economic life-cycle costs, thus no refinement or sign-offs</td>
<td>Solely gov. funded so assessment of value one-sided&lt;br&gt;Outcomes measured in terms of cost savings and improved ESS functionality&lt;br&gt;Deployment on schedule, but no obvious comparisons against the business strategy/investment mix</td>
</tr>
<tr>
<td>5. Conformance</td>
<td>• Regular meetings of the ES IT Advisory Group reviewed and advised on progress of the ESS</td>
<td>• Change management and training were put in place to facilitate achievement of benefits&lt;br&gt;• Policies to ensure all ES functions in new ESS&lt;br&gt;• Tender process: ES to have an IT contact person&lt;br&gt;• Conformance through public and advisory boards, a discussion paper, exposure draft, job seeker sat. surveys, program evals and auditor-gen. reps</td>
<td>Regular meetings of the ES IT Advisory Group reviewed and advised on progress of the ESS</td>
</tr>
<tr>
<td>6. Human Behaviour</td>
<td>• Consult to ensure job seeker &amp; provider needs app.&lt;br&gt;• No public info on current/future demand for HR to support IT-enabled investment + shortfalls&lt;br&gt;• Resource reqs spec. but interdependencies not</td>
<td>• New ESS refers all eligible job seekers to contracted providers efficiently and sensitively&lt;br&gt;• Impacts on resources were taken into consideration e.g. training service providers</td>
<td></td>
</tr>
</tbody>
</table>

Key: Italics = Insufficient attention given or areas for improvement; ES = Employment Services; ESS = Employment Services System; gov = government

Table 3. Evidence of ISO/IEC 38500’s Principles in Our Case Study
5 DISCUSSION

Our aim in investigating the practices of CGIT in a public sector, multi-firm environment, was to contribute to understanding about the practices deployed in this context. Thus, before concluding the paper we discuss several aspects of our findings.

5.1 CGIT: Insights from the Case Study

Whilst Gershon’s (2008) review posited that weak IT governance was apparent at a whole-of-government level and that there were a number of challenges in implementing this in the public sector, we have found evidence of some progress. Our findings demonstrate that practice-oriented research into CGIT in a multi-firm environment is challenging. With respect to our research objectives we found:

1. That the contextual influences impacting how CGIT is applied included: the presence of a strong consultation strategy and sound reporting structure (e.g. consultation sessions, CEO information sessions, face-to-face sessions, live meet sessions), training, an IT advisory group and transition reporting. These practices all contributed to transparency and the system being deployed on-time.

2. Although deployment occurred on-time, conflicts were apparent between the desires and goals of the two parties, which is an issue in ensuring the co-creation of value. Whilst the presence of these is somewhat unsurprising given the system was driven by the principal organization (DEEWR) who had the size and clout in the relationship with the other “partners”/agents being comparatively tiny, it was pleasing to see obvious attempts to minimize this impact through the use of structures and relational mechanisms. However, such situations naturally lead to an imbalance/emphasis on what the principal organization (i.e. DEEWR) wants from the system. Compounding this is the lack of a publicly available performance management framework. This hinders transparency and consequently restricts incentives and encouragement to all concerned. Yet, with this aside, it would seem that DEEWR has realized that what is good for the service providers (employment agents) is good for them as well – cost effective and good employment outcomes.

3. The case was useful in understanding the current practices of CGIT compared to those outlined in ISO/IEC 38500. It highlighted that whilst there was evidence of desired practices occurring, there were avenues for improvement, particularly concerning the monitoring task.

5.2 CGIT: Insights from the Application of ISO/IEC 38500

Based on retrospective application of ISO/IEC 38500 to our case study, we highlight that the weaknesses in current practice lie predominately in the monitoring task component, with some also in the evaluation and direction tasks. For example: (1) CIO reporting wasn’t obvious; (2) alignment with objectives seemed to be one-sided; (3) there weren’t any obvious comparisons against the business strategy/investment mix; (4) nor any obvious assessment of business value; (5) business outcomes were limited to DEEWR; (6) historically systems in the government appear to have been evaluated infrequently; (7) there wasn’t any real evidence of a budget based on full economic life-cycle costs; and (8) consequently no refinement or sign-offs; and (9) no obvious consideration of interdependencies in resource requirements. As these illustrations suggest there is demand for greater leadership, particularly at a high level, to ensure outcomes address not only the needs of the principal’s portfolio, but also that of the agents. On a theoretical note, the choice of ISO/IEC 38500 labels for the three main tasks, evaluate, direct and monitor, adds confusion as the term evaluate is used here to refer to an initial scan of practice, not a final assessment.

Whilst our analysis shows obvious areas for improvement, our case study raises an interesting issue concerning the governance of government IT investments with public services such as the ESS. For example, does the peculiarity of our context account for some of the variance from the standard? There is a possibility that this is the case. Further, the way in which the information about the system has been portrayed may also contribute to this. For example, there are ‘voting stakeholders’, some of whom surf the internet to write stories for newspapers etc.
5.3 Limitations and Opportunities for Future Research

Our assessment and thus findings are limited in two ways. Firstly, our analysis is limited to a single case study. Whilst consistent with past research that has examined related concepts (e.g. Sanford and Bhattacherjee, 2008), further case studies in other government departments would strengthen our findings and provide interesting comparisons. Secondly, as we were solely reliant upon publicly available information this limits our mappings and therefore resultant conclusions. Whilst the information available was transparent and relatively comprehensive, follow up interviews with key stakeholders involved in the process and end-users of the system may have further enriched this information. Finally, retrospective application of any framework presents its own limitations. Despite this we suggest the insights gained from this approach outweigh the disadvantages.

Other opportunities for future research in this area include: subsequent case studies to appreciate how the planning and managerial support that went into this deployment are transferred to subsequent deployments so that deeper understanding about organizational learning and best practice evolves. Further, it would be interesting to undertake additional research in complex multi-firm settings like ours to develop further understanding about how goals, objectives, power, legitimacy and urgency of involved parties play a role in governance practices. Finally, as monitoring was such an issue in our case study, the creation of a performance management framework that is tailored to this context would be insightful.

6 CONCLUSION

In this paper, through the filter of ISO/IEC 38500, we have looked at the role of CGIT in an Australian Government Department and the impact it has had on a large scale IT project. Through this we demonstrate the practical value of CGIT and thereby contribute to Design Theory. Our case study shows that the presence of necessary elements of governance, like appropriate structures, contributes to positive outcomes. Moreover, using the ISO/IEC 38500 framework we were able to identify areas of weakness in the project and offer suggestions for improvement. Whilst our paper extends the understanding of practice in public sector firms (a need identified by Irani and Love, 2008) and exposes some of the unique problems faced in sector, further work is required to evolve practice and to improve outcomes for subsequent projects.

7 REFERENCES


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