

# IT GOVERNANCE TO IMPROVE EGOVERNMENT

**Gail Ridley**

School of Accounting and Corporate Governance  
University of Tasmania  
Hobart, Australia  
gail.ridley@utas.edu.au

**Abstract:** *Both eGovernance and IT governance are growing research areas. Despite the broad benefits predicted for citizens and nations from introducing eGovernment, empirical investigations of its implementations suggest that many of them have stalled at an early phase of maturity. In recent research, diverse barriers to the achievement of the more sophisticated phases of eGovernment have been identified. Poor IT governance is accepted as the major explanation for failure to achieve the goals from IT-related projects. Yet little explicit consideration of IT governance appears in the eGovernance literature. Why eGovernment has not been as successful as predicted must be due at least in part to the challenges required in bringing about effective IT governance. COBIT is the best-known IT-governance framework. Mapping the barriers to achieving eGovernment to the COBIT framework is expected to indicate the degree to which eGovernment may be improved through effective use of an IT governance framework. This approach may also identify barriers to eGovernment that cannot be mapped to COBIT. This white paper seeks to prompt discussion on the role of IT governance in achieving effective eGovernment.*

## Introduction

Although eGovernment has been defined in numerous ways, the following was developed by Grant and Chau (2005) after a review of numerous previous studies in the area:

*A broad-based transformation initiative, enabled by leveraging the capabilities of information and communication technology; (1) to develop and deliver high quality, seamless, and integrated public services; (2) to enable effective constituent relationship management; and (3) to support the economic and social development of goals of citizens, business, and civil society at local, state, national, and international levels (p. 9).*

This definition acknowledges the complexity of eGovernment as well as the enabling role of IT.

In the short time since its inception, eGovernment has become a growth area for research, particularly since 2005. As more empirical research studies on eGovernance have been undertaken, researchers have noted that a gap exists between the achievements from eGovernment in jurisdictions around the world and those predicted from earlier studies. Many of the eGovernment implementations have stalled at the first or second of four stages commonly envisioned for eGovernment, when the phases proposed by Chen (2002) are considered. That is, while many examples of eGovernment implementations that function at

the first (information enabling) and second (two-way exchange) stages have been observed, fewer exist that have progressed to the third (transactional) or fourth (transforming) stages. Consequently a range of barriers have been proposed to explain why most implementations do not reach the later stages of eGovernment. This white paper proposes that poor Information Technology (IT) governance is at least in part responsible for lack of success in achieving the transactional and transformational phases of eGovernment. The aim of this paper is to prompt discussion on the role of effective IT governance in achieving the more sophisticated phases of eGovernment implementation.

## **Identified Barriers to eGovernment**

The barriers to effective eGovernment identified to date are diverse, and include issues that go far beyond the technological. The barriers to eGovernment identified by Marche and McNiven (2003) are typical. They refer to the “function insularity” of public administration, and a failure to integrate the provision of services to citizens across government departments. The researchers attributed this malfunction to cultural problems as well as to the challenges of integrating procedures and systems across agencies. Additional barriers to eGovernment identified by Marche and McNiven include security and privacy issues, poorly skilled government employees and citizens, and limited access to eGovernment services by those citizens in most need.

## **IT Governance**

IT governance (also termed Information Systems (IS) governance) consists of the leadership, organisational structures and processes that ensure that an organisation’s IT sustains and extends its strategies and objectives (Guldentops 2001). IT governance aims to ensure that the expectations and achievements from IT are matched, and that the risks associated with IT are controlled. In particular IT governance focuses on the strategic alignment between an organisation’s use of IT and achievement of its business goals and objectives, an issue which is also important in eGovernment. As IS is positioned within organisational settings and involves people, IT (IS) governance considers much broader issues than technology. These issues include policy, planning, culture, training and change management. As it is now well accepted that poor IT governance is the major explanation for failure to achieve the goals from IT-related projects, it was anticipated that the eGovernment literature would consider explicitly the role of IT governance in discussion of eGovernment’s shortcomings.

A search of multiple databases in the vast ProQuest resource failed to identify scholarly papers that gave more than a passing mention to the role of IT governance in eGovernment. A Google search however identified practitioner sites that promised effective eGovernment solutions as an outcome of implementing particular proprietary approaches to IT governance. It appears therefore that although there is implicit recognition of the importance of effective IT governance to eGovernment, little to no scholarly research has been conducted in the area. This is surprising given the attention that has been paid to IT governance and recent empirical evidence of its contribution when undertaken well. A possible reason for the apparent neglect of IT governance in eGovernment research to date is that greater focus has been placed on how eGovernment is different to other fields (in order to justify its establishment) rather than on considering its commonality with other fields. The author holds that effective IT governance is necessary for eGovernance projects to be successful. It is argued that the dearth

of scholarly literature that explicitly examines the relationship between IT Governance and eGovernance indicates that IT governance has been given insufficient attention. Consequently inadequate IT governance of eGovernment implementations is likely to account for at least some of the difficulties observed in achieving the potential of eGovernment. Third and fourth phase eGovernment implementations involve a diverse range of complex processes, demanding excellent IT governance and alignment between IT and organisational goals. Use of an IT governance framework will help improve the quality of IT governance in this setting.

## **IT Governance Frameworks and COBIT**

IT control frameworks have been developed to direct the management of IT processes in a way that aligns them with business processes. *The Control Objectives for Information and Related Technology* (COBIT) is the best known IT governance and control framework. COBIT bridges the gaps between business risks, control needs and technical issues, and sets out IT governance best practice. It has been implemented by thousands of organisations throughout the world, including large public sector organisations such as the (Australian) New South Wales Department of Health and the United States Department of Defense.

The latest version of COBIT, Version 4.1, sets out IT processes grouped into four IT domains: *Planning and Organization, Acquisition and Implementation, Delivery and Support, and Monitoring*. The 34 IT processes are broken down further into 210 control objectives. COBIT is designed to be comprehensive, guiding management in defining a strategic plan for IT, setting out the information architecture, identifying the hardware and software needed to implement IT strategy, monitoring the effectiveness of IT and more. COBIT also contains a set of management guidelines and a tool designed to help organisations measure the maturity of management processes that have been developed for each of the 34 IT processes. Although COBIT is large and complex, a smaller version of it, COBIT Quickstart, is suitable for smaller organisations or those wanting to implement a core set of IT processes initially. A framework associated with COBIT called Val IT links the processes in COBIT to those needed to be undertaken by senior management in order to gain value from investment in IT.

## **Future Research**

From the brief overview of typical barriers to eGovernment discussed earlier, they appear to involve policy, planning, culture, training and change management issues, all of which are addressed in the COBIT control framework for IT governance. Therefore it may be possible to map the barriers that limit the progression of eGovernment towards its more complex but higher value third and fourth phases, to the comprehensive set of IT processes in COBIT (and to Val IT). Such a mapping may reveal those barriers to eGovernment that have potential to be controlled through effective IT governance and value governance. The proposed future research may also identify barriers that are outside the control of IT governance and value governance, and so will require a different approach. This mapping may indicate the potential and limitations of IT governance to achieve effective eGovernment, and so contribute to the eGovernment body of knowledge.

## Conclusions

This white paper has raised the issue of the role of IT governance in eGovernment. It has also proposed future research to help clarify the link between IT governance and eGovernment through mapping the barriers that limit eGovernment onto the COBIT IT governance framework. This mapping may indicate the potential for effective IT governance to overcome barriers to eGovernment, and also where IT governance lacks this potential. In summary this white paper seeks consideration of the following questions:

- Why is there little explicit investigation of IT governance in the eGovernment literature?
- What is the role of IT governance in achieving effective eGovernment implementations?
- Does the importance of IT governance vary when trying to achieve the different phases of eGovernment?
- Can use of an IT control framework like COBIT improve eGovernment implementations?
- Which of the barriers to eGovernment can be addressed by implementing COBIT, and which cannot?

## References

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