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ICT Corporate Governance:
A Case Study of a Not-for-Profit Community Healthcare Organisation

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ICT Corporate Governance:

A Case Study of a Not-for-Profit Community Healthcare Organisation

ABSTRACT: Organisations, regardless of sector and size, are increasingly deploying information and communication technology (ICT) to transact with their stakeholders. Whilst on the one hand this offers efficiencies like improved communication and better resource usage through a reduction in duplication, on the other hand it raises issues of responsiveness, trust, privacy and confidentiality. In this paper we report how an Australian not-for-profit community healthcare organisation experienced and responded to the challenges of governance with respect to its ICT. The lessons from the case study are that comprehensive documentation, top management commitment, and appropriate skills to manage tasks and time are crucial when planning to implement such systems.

Key words: Corporate governance, Healthcare, Standards, ICT governance,

INFORMATION AND COMMUNICATION TECHNOLOGY

Motivated by such factors as time constraints, customer expectations of prompt service and the possibility of cost efficiencies, organisations are routinely deploying information and communication technologies (ICT) to capture, store, manipulate, and present data to facilitate their business processes and value-adding activities. As a result, for many organisations, ICT has become ubiquitous throughout their operations. However, studies on large-scale investments in Information Technology (IT) have shown that organisations often struggle to maximise the potential from their investment, resulting in under-performance or even a failure to gain an adequate return on expenditure (Val IT, 2008: 7). In response organisations frequently look to controls, such as those provided under governance systems and standards, in order to ensure that desired objectives are met. Through these controls, organisations seek to more effectively meet stakeholder expectations for financial and environmental prudence, reputation, competitiveness, and risk management, which for some organisations has lead to value being obtained (see Weill, 2004). Given the funding challenges faced by healthcare service providers, the objective of this study was to gain an understanding of how a not-for-profit community healthcare organisation had evolved a framework for ICT governance to address issues arising from the pervasive use of ICT in its operations.
Organisations that deploy ICT often face the challenge of heightened risk, most notably that of system failure. Examples include failures in railway networks (da Cruz, 2004), stock market crashes (Barboza, 2007), payroll system failures (Lane, 2009; Bauer, 2009), and airline delays due to problems with booking and ticketing systems (Rosencrance, 2009). These have all been blamed on system problems associated with ICT. Moreover, the speed of transactions and the efficiency of communication and information flows contribute to the magnitude of such events. Whilst humans are responsible for a number of cases of abuse of ICT capabilities, such as fraud, theft of intellectual property, deception and breaches of ethics (Richards, 2008; Smith, 2009), not all ICT-related failures or problems are within human control. Natural disasters like the earthquake off the coast of Taiwan in December 2006, which severed a fibre optic cable connecting ICT systems, disrupted the Internet and other communication services to a number of South East Asian countries, significantly hampering business communication over the busy Christmas and New Year period (Greenlees, 2006). Although natural disasters are unavoidable, the impacts of ICT failures can be avoided or mitigated using standards like AS8015-2005, the Australian Standard for Corporate Governance of Information and Communication Technology, its international relation ISO/IEC38500:2008, and other quality standards. These standards present principles and frameworks that aid those at “the highest level of organisations to understand and fulfil their legal, regulatory, and ethical obligations in respect of their organisations’ use of IT” (ISO/IEC 38500:2008: v).

In considering the use of such standards in the public sector, an Australian Government study found that ICT governance in this sector is more challenging for five reasons: the complexity caused by the multi-dimensional context of ICT and ‘joined-up’ projects; the proliferation of ICT initiatives; the inadequacies of the management culture surrounding decision making; weak capabilities for institutionalized learning; and the political risk of initiatives in the public sector (Gershon, 2009). Nonetheless, given that corporate governance and risk management practices applied to ICT projects cannot be overlooked due to their potential for ensuring effective ICT strategy and implementation, further studies on the experiences of organisations in this area is crucial. This paper reports on the
experience of a not-for-profit community healthcare organisation as it tackled these issues and embraced corporate governance principles and standards to more effectively manage its ICT activities.

CORPORATE GOVERNANCE

Corporate governance is a system which directs and controls organisations (Cadbury, 1992; OECD, 1999). It is “an internal system encompassing policies, processes and people, which serve the needs of shareholders and other stakeholders, by directing and controlling management activities with good business savvy, objectivity, accountability and integrity” (O’Donovan, 2003: 22). If successfully implemented, corporate governance can act as a means to achieve socio-economic development (Sapovadia, 2003) and it can ensure that the needs of organisational stakeholders are addressed. The stakeholders of an organisation generally include the Chief Executive Officer, the board of directors, management, auditors and - depending upon the type of organisation - shareholders, employees, suppliers, creditors, customers and the community. Given corporate governance has been found to have an impact on firm performance, with the ‘most admired’ organisations yielding an average return of 125% and the ‘least admired’ 80% (Antunovich, Laster & Mitnick, 2000), investigation of the governance mechanisms being used can be valuable. Currently, with ICT being so pervasive in organisations, we extend this perspective on the performance effects of governance to the need for, and the role of ICT governance.

The Need for ICT Governance

Over the last decade there has been explosive growth in expenditure on ICT. In 2010 worldwide ICT spending was forecast to be $3,394 billion, 5.3% higher than 2009 (Clark, 2010). This has included a 5.7% increase in spending on IT services, which represented growth of $44 billion. Given these sorts of increases, it is not surprising that the implementation, maintenance and protection of ICT have become an integral part of business operations for organisations seeking to achieve sustained competitive advantage (Mukundan, 2006; Bradley & Byrd, 2007). However, in deploying this technology, organisations face many challenges. On the one hand, at an operational level.
organisational stakeholders want assurances that the technology being used is secure from hackers and thus from fraud or identity theft. On the other hand, at a more strategic level, stakeholders want to be sure that IT will support the organisation in achieving its objectives and will yield a return on investment. The governance of IT can assist with this, and has been defined as the “system by which the current and future use of IT is directed and controlled” (ISO/IEC 38500:2008: 3). This involves “evaluating and directing the use of IT to support the organisation and monitoring this use to achieve plans. It includes the strategy and policies for using IT within an organisation” (ISO/IEC 38500:2008: 3). Risks arising from the poor governance of ICT include: lack of compliance with disclosure and other regulations; a loss of trust by customers and staff; breaches of privacy laws; abuse of power and other ethical obligations; and diversion from achieving targets in strategic plans (da Cruz, 2006).

The adoption of ICT governance has been cited as one of the growing areas of uptake by organisations (Anonymous, 2007), and it has been recognised by top management “as an essential part of enterprise governance” (Hardy, 2009: 3). In fact, ‘regulatory compliance’ and ‘enterprise based IT management/IT governance’ were found to be the top two concerns identified by IT managers in a recent survey (Wilson & Pollard, 2009). As managers recognize the importance of “prescribed roles, responsibilities, and accountabilities” (Hardy, 2009: 3) in their governance systems, this is where governance standards such as ISO/IEC38500:2008 come into play. Standards like this emphasise the assignation of responsibility and accountability in decision making. However, to date, with a few exceptions (e.g. Wilson and Pollard 2009; Wilkin and Campbell 2010; O’Donohue, Pye and Warren 2006; and Robb and Parent 2009) there has been very little systematic empirical research in this area, a knowledge gap this study sought to address.

Standards and Frameworks to Assist with the Corporate Governance of ICT

The IT Governance Institute (ITGI, 2009) and its British counterpart ITIL have, over time, developed several tools and frameworks such as Val IT, COBIT and ITIL, which together with the ISO/IEC

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1 Information Technology Infrastructure Library
standards are designed to assist organisations in maximizing the potential from their IT investments. Val IT (2008: 6) provides “enterprises with the structure they require to measure, monitor and optimise the realization of business value from investment in IT”. COBIT\(^2\) “provides a comprehensive framework for the delivery of high-quality information technology-based services” (Val IT 2008: 6). ITIL (2009) assists organisations in developing a framework for IT service management by providing them with “consistent and comprehensive documentation of best practice for IT Service Management”. ISO/IEC38500:2008, derived from the Australian standard AS8015:2005, seeks to “promote effective, efficient, and acceptable use of IT in all organisations by assuring stakeholders …, informing and guiding directors …, and providing a basis for objective evaluation of the corporate governance of IT” (ISO/IEC 38500:2008: 1).

In the healthcare context, other standards have emerged that seek to strengthen the performance of operations. The most influential of these are managed by the Australian Council on Healthcare Standards (ACHS, 2008: 1), which “is an independent, not-for-profit organisation, dedicated to improving the quality and safety performance of health care organisations in Australia through a continuous process of performance review”. As a leading authority in the field, ACHS develops, implements and assesses the quality improvement systems of Australian healthcare organisations, accrediting those that “demonstrate compliance with industry supported standards of performance”. ACHS’s core accreditation program is the ‘Evaluation and Quality Improvement Program (EQuIP)’, which guides organisations through a four year cycle of self-assessment, an organisation-wide survey and periodic review (ACHS, 2010).

**RESEARCH METHODOLOGY**

Following Yin (1993) and de Vaus (2001), a case study design was adopted, with the case defined as the development of ICT governance systems and practices at Company ‘A’ (a pseudonym). Two main methods of data collection were used. The first was the collation and analysis of secondary data

\(^2\) or Control Objectives for Information and related Technology
sources arising both from within the case study (e.g. annual reports, the organization's website, formal submissions to government inquiries, etc.) and from outside of it (e.g. media reports, web pages, reports of other organizations, government announcements, etc.). The second method was an in-depth interview at Company ‘A’s Head Office with the General Manager of Information Services (Interviewee A) and the General Manager for Projects and Business Development (Interviewee B). The interview lasted approximately 90 minutes, and hand-written notes were made during the interview as the interviewees did not want the interview to be tape-recorded. Subsequently these hand-written notes were transcribed and sent to the interviewees for verification and authentication.

Through this case study we aimed to answer the following research questions:

1. What are the current challenges faced by Company A?
2. What experiences and knowledge did Company A draw upon in developing their ICT governance approach?
3. What lessons did Company A learn from implementing ICT governance and what recommendations would they provide to others in doing this?

In analysing the rich body of data collected, we followed the ‘data analysis spiral’ approach (Creswell, 1998) and the naturalistic inquiry tradition of qualitative research (Lincoln & Guba, 1985). The complementary primary and secondary data enabled both contextualisation of the case and triangulation of the findings through multiple sources of evidence (Yin, 1993).

**DISCUSSION OF THE FINDINGS**

Company ‘A’ is a not-for-profit healthcare organisation based in Melbourne with Public Benevolent Institution status. It is registered as an Australian Public Company by the Australian Securities and Investment Commission, and is a Registered Funded Agency under the Victorian Health Services Act 1988. The company’s vision is "to be the provider of choice for home and community nursing and healthcare services" (Company A, 2010), with its principal business being the provision of home nursing services. During the 2008-2009 financial year, Company ‘A’ employed 1,400 staff, treated
33,213 clients through 1,718,540 visits (this included both direct care and client-related contacts) involving 581,503 hours of care. In providing this care its clinical staff travelled 8.9 million kilometres (Company A, 2009). In the 2009 financial year Company ‘A’ had a turnover of $95,795,521, with around 80% of its revenue coming from a contract with the Victorian Government.

The organisation is governed by a Board of Directors, which comprises of 10 members that includes representation from healthcare professionals and other specialists in finance and accounting, law, communications and media, and business consulting. The Board has five sub-committees (i.e., Assets, Audit and Risk, Clinical Governance, Finance, Remuneration and Nominations), which have oversight for crucial areas of the organisation’s strategy and operations. The Company has a Board level Corporate Governance Statement and Charter Statement, which describe the operating philosophy and provide guidelines on significant corporate governance issues including the operation of the interface between the Board, management and staff. The Board of Directors primarily interact with staff at events (e.g. the Christmas Party, awards ceremonies), meaning that the majority of staff may not be personally aware of individual directors. However, as part of their orientation, new directors are required to spend a morning on the road with a nurse to understand ‘the business’. With respect to middle level management, their primary interaction with the Board of Directors is at monthly board meetings.

**Current Challenges Faced by Company A**

The interviewees stated that the company faced four main challenges in moving forward: changes in the external environment and increasing competition; rapid changes in IT; resourcing to accommodate the required changes; and visibility amongst the community and stakeholders. As they were now encountering and “attracting interest and competition” (Interviewee B), their major challenge was positioning the company for the future so that they could maintain their competitiveness. This “required insulation from any disruption to our major contract and for this we need growth and diversification” (Interviewee B). To achieve this, the Company needs to maintain the delicate balance
and keep making changes in “both the human aspects and the technology” (interviewee A). The interviewees illustrated this with the example of adding new software, where due to a lack of continuous monitoring and support, the operating system became a liability rather than a resource. As a result, comprehensive cost-benefit analysis is now undertaken before funding decisions are made. Whilst the managers recognised the need to maintain competitiveness, they were also aware that it was imperative for the company to acquire and spend resources effectively and efficiently, as implementing the numerous projects “with limited resources [was creating] stresses and strains for [its] core business”.

ICT Governance: Company A’s Experience, Knowledge and Principles
As evidenced by their Strategic Information Systems Plans (1995 – 2000; and 2003 to present), Company A has had IT planning processes since the mid-1990s. In the early stages senior management recognised the need for an IT plan, which arose out of the Corporate Plan. By 2002, significant changes within Company A’s operating environment (both internal and external) had occurred and the relationship between business needs and strategic IT plans was recognised. In 2006 the company carried out a major evaluation of its core business system, the Mobile Computing System. Through input from external IT consultants (Unisys and Opticon) and stakeholders (e.g. Health Computing Services and the Victorian Department of Human Services), the company went through a period of change that resulted in a significant investment in IT systems, with current capital expenditure estimated to be $1.5 million per annum.

Company A’s core system is based on ITIL. Any new changes need to be structured as proposals and submitted to a ‘change board’ whose responsibility is to “prioritise the issues, decide what comes next and what is to be done” (Interviewee A) . The ‘Change board’ is made up of the Executive General Manager Services Delivery (the chair), the two General Service Delivery Managers, the Manager of the Customer Service Centre, the General Manager of Human Resources, and representatives from the IT Division (especially Informatics people). It is believed that this system has been received positively
by the operations staff and managers as “the business people are happier that their needs are being met by a service department” (Interviewee A).

Following their extensive review of business operations in 2006, Company A introduced PRINCE2\(^1\), a project management methodology. In the past three years more than 50 people have been trained in this, from the executive down to IT operatives. The adoption of PRINCE2 was perceived by internal stakeholders as being significant as it “provided [Company A with] a model of governance” (Interviewee A). As a result the company believes that they now “have a clearer idea about governance issues and responsibilities and how these fit into a project. PRINCE2 goes through all the governance issues, e.g. identifying stakeholders, clarifying board roles such as project sponsor (who provides the mandate for a project), and the (required) documentation unfolds as the project proceeds” (Interviewee A). In the past 4-5 years Company A has also introduced a risk register, which fulfils the “need for a more systematic risk management process” (Interviewee B). Coupled with this they have established a risk committee at the senior management level which reports to the Board.

Interviewee A highlighted that they checked, under tendering arrangements, their vendors and suppliers in relation to their corporate governance systems or its equivalent. The main stimulus for the introduction of these checks had been earlier experiences coupled with the turbulent business environment, wherein some suppliers had gone into receivership. Currently Company A does not have any in-house capability for software development and its main client system is managed by its partner service provider (an offshore company) which deploys new software and runs synchronised site recovery. However, the ancillary systems are still managed by Company A itself.

To ensure the smooth functioning of its systems, Company A undertakes a number of internal and external audits, with the latter being conducted by its stakeholders including the contract providers. Moreover, Company A has a detailed set of procedures to ensure quality and continuous improvement.

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\(^{1}\) PRojects IN Controlled Environments
across the organisation. The Department of Veteran Affairs [VA], for example, does a regular audit of its performance. In its Customer Service Centre (a call centre taking around 20,000 calls per month) at least 3 calls per operator per month are checked, assessed and scored. This process can at times lead to quality improvement interventions (e.g. shadowing and coaching). There are formalised Clinical Leadership Groups that are aimed at improving clinical practice. Last but not least Company A has also formalised an incident and complaint reporting system, which provides data on quality issues for analysis.

**Lessons Learnt and Recommendations to other Companies**

Reflecting on their journey in developing an effective corporate governance system, the interviewees were asked to comment on their experiences and provide recommendations for other managers and companies planning to go down a similar path. In response, Interviewee A stated that the “focus [needs to be] on documenting things in a way that other people can understand”. In other words, ideas being proposed should have clear guidelines and details regarding the necessity of the project as this can save time and money in subsequent discussion. Interviewee B stressed the need for top management commitment stating that an organisation needs to have an embedded “culture of continuous improvement” that is “encouraged by the CEO who should be prepared to invest and create a capacity for continuous improvement”. Interviewee A supported this, emphasising the need for communication before changes are made within the organisational system, whether it be at the strategic or functional levels and the catch word here was ‘change management’. He commented: “We have put considerable effort into change management. People should know what is happening, and should know what needs to be cleaned up from the past”. The next two recommendations can be summed up by the words ‘time and task management’ i.e. implementers should be “realistic about what you can do, do not allow yourself to be overwhelmed”, which can be achieved by breaking a task into smaller, manageable components (Interviewee B). Based on their own experiences, this interviewee reflected: “We have had an over-riding ambition about being the best, but we have been
realistic about what we can do. We have sought to get the best value for money. Concentrating on ambitions can provide a springboard for the next focus”.

CONCLUSION

This paper has presented findings from a case study of a not-for-profit community based healthcare organisation on its experiences with the development and adoption of corporate governance and associated ICT governance systems. Whilst this company does not follow the ISO/IEC38500:2008 standard (which is currently not available for certification), there was evidence of the sort of practices prescribed under this standard and the use of other existing tools and frameworks like PRINCE2 and ITIL which contribute to effective ICT governance. This highlights that although ICT governance is perceived to be more challenging in the public sector (Gershon, 2009), a sector which can be considered to encompass private sector suppliers in certain industries such as healthcare, many companies in these industries are making efforts to embrace it. Further, based on the experience of the interviewees in Company A, comprehensive documentation, top management commitment, and appropriate skills to manage tasks and time are crucial when planning to implement such governance systems. Ensuring these elements are in place can help address the risk of failure or ineffectiveness of ICT governance systems.

One opportunity for future research arising from this limited case study would be to conduct a nationwide survey of organizations, across sectors and industries, to investigate the awareness of and the practices employed for ICT corporate governance. In conducting such a survey, comparisons could be drawn between the survey findings and the principles outlined in the ISO/IEC38500:2008 standard. Further, as this paper reports on a single case, other case studies would strengthen the generalisability of the findings and provide interesting points of comparison across different types of organisation. We hope that other researchers in Australia will rise to this challenge to address what is an increasingly important area for most organizations today.
REFERENCES

Company A (2010) Customer Service Commitment [information obtained from the web page].
Val IT (2008) Enterprise Value: Governance of IT Investments – The Val IT Framework 2.0, IT Governance Institute, Rolling Meadows, IL, USA.
ICT Corporate Governance:  
A Case Study of a Not-for-Profit Community Healthcare Organisation

ABSTRACT: Organisations, regardless of sector and size, are increasingly deploying information and communication technology (ICT) to interact with their stakeholders. Whilst on the one hand this offers efficiencies such as improved communication and more efficient resource usage, on the other hand it raises problematic issues of responsiveness, trust, privacy and confidentiality. In this paper we report how an Australian not-for-profit community healthcare organisation experienced and responded to the challenges of governance with respect to its ICT systems. The lessons derived from the exploratory case study are that comprehensive documentation, top management commitment, and appropriate skills to manage tasks and time are crucial when planning to implement such systems.

Key words: Corporate governance, Healthcare, Standards, ICT governance.

INFORMATION AND COMMUNICATION TECHNOLOGY
Motivated by such factors as time constraints, customer expectations of prompt service and the possibility of cost efficiencies, organisations are routinely deploying information and communication technologies (ICT) to capture, store, manipulate, and present data to facilitate their business processes and value-adding activities. As a result, for many organisations, ICT - or simply ‘IT’ as it is often referred to - has become ubiquitous throughout their operations. However, studies on large-scale investments in Information Technology (IT) have shown that organisations often struggle to maximise the potential from their investment, resulting in under-performance or even a failure to gain an adequate return on expenditure (Val IT, 2008: 7). In response organisations frequently look to controls, such as those provided under governance systems and standards, in order to ensure that desired objectives are met. Through these controls, organisations seek to more effectively meet stakeholder expectations for financial and environmental prudence, reputation, competitiveness, and risk management, which for some organisations has lead to value being obtained (see Weill, 2004). Given the funding challenges faced by healthcare service providers, the objective of this study was to gain an understanding of how a not-for-profit community healthcare organisation had evolved a framework for ICT governance to address issues arising from the pervasive use of ICT in its operations.
Organisations that deploy ICT often face the challenge of heightened risk, most notably that of system failure. Examples include failures in railway networks (da Cruz, 2004), stock market crashes (Barboza, 2007), payroll system failures (Lane, 2009; Bauer, 2009), and airline delays due to problems with booking and ticketing systems (Rosencrance, 2009). These have all been blamed on system problems associated with ICT. Moreover, the speed of transactions and the efficiency of communication and information flows contribute to the magnitude of such events. Whilst humans are responsible for a number of cases of abuse of ICT capabilities, such as fraud, theft of intellectual property, deception and breaches of ethics (Richards, 2008; Smith, 2009), not all ICT-related failures or problems are within human control. Natural disasters like the earthquake off the coast of Taiwan in December 2006, which severed a fibre optic cable connecting ICT systems, disrupted the Internet and other communication services to a number of South East Asian countries, significantly hampering business communication over the busy Christmas and New Year period (Greenlees, 2006). Although natural disasters are unavoidable, the impacts of ICT failures can be avoided or mitigated using standards like AS8015-2005, the Australian Standard for Corporate Governance of Information and Communication Technology, its international relation ISO/IEC38500:2008, and other quality standards. These standards present principles and frameworks that aid those at "the highest level of organisations to understand and fulfil their legal, regulatory, and ethical obligations in respect of their organisations’ use of IT" (ISO/IEC 38500:2008: v).

In considering the use of such standards in the public sector, an Australian Government study found that ICT governance in this sector is more challenging for five reasons: the complexity caused by the multi-dimensional context of ICT and ‘joined-up’ projects; the proliferation of ICT initiatives; the inadequacies of the management culture surrounding decision making; weak capabilities for institutionalized learning; and the political risk of initiatives in the public sector (Gershon, 2009). Nonetheless, given that corporate governance and risk management practices applied to ICT projects cannot be overlooked due to their potential for ensuring effective ICT strategy and implementation, further research on the experiences of organisations in this area is crucial. This paper reports on the
experience of an Australian not-for-profit community healthcare organisation as it tackled these issues and embraced corporate governance principles and standards to more effectively manage its ICT activities. We emphasise that this is a preliminary exploratory study in an area that has hitherto been the subject of little research attention within the discipline of management. As such, the approach is largely descriptive and management practice-oriented although it is expected that further research based on this case study will seek to engage with appropriate theory (e.g. developing an earlier attempt by Robb and Parent, 2008) to help understand the behaviour of managers in this critical area of organisational operations.

CORPORATE GOVERNANCE

Corporate governance is a system which directs and controls organisations (Cadbury, 1992; OECD, 1999). It is "an internal system encompassing policies, processes and people, which serve the needs of shareholders and other stakeholders, by directing and controlling management activities with good business savvy, objectivity, accountability and integrity" (O'Donovan, 2003: 22). If successfully implemented, corporate governance can act as a means to achieve socio-economic development (Sapovadia, 2003) and it can ensure that the needs of organisational stakeholders are addressed. The stakeholders of an organisation generally include the Chief Executive Officer, the board of directors, management, auditors and - depending upon the type of organisation - shareholders, employees, suppliers, creditors, customers and the community. Given that corporate governance has been found to have an impact on firm performance, with the 'most admired' organisations yielding an average return of 125% and the 'least admired' 80% (Antunovich, Laster & Mitnick, 2000), investigation of the governance mechanisms currently being used can be valuable. With ICT being so pervasive in organisations today, we extend this perspective on the performance effects of governance to the need for, and the role of, ICT governance.
The Need for ICT Governance

Over the last decade there has been explosive growth in expenditure on ICT. In 2010 worldwide ICT spending was forecast to be $3,394 billion, 5.3% higher than 2009 (Clark, 2010). This has included a 5.7% increase in spending on IT services, which represented growth of $44 billion. Given these sorts of increases, it is not surprising that the implementation, maintenance and protection of ICT have become an integral part of business operations for organisations seeking to achieve sustained competitive advantage (Mukundan, 2006; Bradley & Byrd, 2007). However, in deploying this technology, organisations face many challenges. On the one hand, at an operational level, organisational stakeholders want assurances that the technology being used is secure from illegal activities (threats such as hacking, viruses and malware) and thus from fraud or identity theft. On the other hand, at a more strategic level, stakeholders want to be sure that IT will support the organisation in achieving its objectives and will yield the expected return on investment. The governance of IT can assist with this, and has been defined as the “system by which the current and future use of IT is directed and controlled” (ISO/IEC 38500:2008: 3). This involves “evaluating and directing the use of IT to support the organisation and monitoring this use to achieve plans. It includes the strategy and policies for using IT within an organisation” (ISO/IEC 38500:2008: 3). Risks arising from the poor governance of ICT include: lack of compliance with disclosure and other regulations; a loss of trust by customers and staff; breaches of privacy laws; abuse of power and other ethical obligations; and diversion from achieving targets in strategic plans (da Cruz, 2006).

The adoption of ICT governance has been cited as one of the growing areas of uptake by organisations (Anonymous, 2007), and it has been recognised by top management “as an essential part of enterprise governance” (Hardy, 2009: 3). In fact, ‘regulatory compliance’ and ‘enterprise based IT management/IT governance’ were found to be the top two concerns identified by IT managers in a recent survey (Wilson & Pollard, 2009). As managers recognize the importance of “prescribed roles, responsibilities, and accountabilities” (Hardy, 2009: 3) in their governance systems, this is where governance standards such as ISO/IEC38500:2008 come into play. Standards like this emphasise the
assignation of responsibility and accountability in decision making. However, to date, with a few exceptions (e.g. Wilson and Pollard 2009; Wilkin and Campbell 2010; O'Donohue, Pye and Warren 2006; and Robb and Parent 2009) there has been very little systematic empirical research in this area, a knowledge gap this study sought to address.

**Standards and Frameworks to Assist with the Corporate Governance of ICT**

Organisations such as the Information Systems Audit and Control Association (ISACA), the IT Governance Institute (ITGI, 2009) and its British counterpart ITIL¹ have, over time, developed several tools and frameworks such as Val IT, COBIT and ITIL, which together with the ISO/IEC standards are designed to assist organisations in maximizing the potential from their IT investments. Val IT (2008: 6) provides “enterprises with the structure they require to measure, monitor and optimise the realization of business value from investment in IT”. COBIT² “provides a comprehensive framework for the delivery of high-quality information technology-based services” (Val IT 2008: 6). ITIL (2009) assists organisations in developing a framework for IT service management by providing them with “consistent and comprehensive documentation of best practice for IT Service Management”. ISO/IEC38500:2008, derived from the Australian standard AS8015:2005, seeks to “promote effective, efficient, and acceptable use of IT in all organisations by assuring stakeholders ..., informing and guiding directors ..., and providing a basis for objective evaluation of the corporate governance of IT” (ISO/IEC 38500:2008: 1).

In the healthcare context, other standards have emerged that seek to strengthen the performance of operations. The most influential of these are managed by the Australian Council on Healthcare Standards (ACHS, 2008: 1), which “is an independent, not-for-profit organisation, dedicated to improving the quality and safety performance of health care organisations in Australia through a continuous process of performance review”. As a leading authority in the field, ACHS develops, implements and assesses the quality improvement systems of Australian healthcare organisations.

¹ (Information Technology Infrastructure Library)
² or Control Objectives for Information and related Technology
accrediting those that “demonstrate compliance with industry supported standards of performance”.

ACHS’s core accreditation program is the ‘Evaluation and Quality Improvement Program (EQuIP)’, which guides organisations through a four year cycle of self-assessment, an organisation-wide survey and periodic review (ACHS, 2010).

**RESEARCH METHODS**

Following Yin (1993) and de Vaus (2001), a case study design was adopted, with the case defined as the development of ICT governance systems and practices at ‘Healthco’ (a pseudonym). Embedded within this case were the organisation’s IT staff, managers at all levels, health care practitioners, board members, and key external stakeholders such as the Australian State and Commonwealth governments. Two main methods of data collection were used. The first was the collation and analysis of secondary data sources arising both from within the case study organisation (e.g. annual reports, the organisation’s website, formal submissions to government inquiries, etc.) and from outside of it (e.g. media reports, web pages, reports of other organisations, government announcements, etc.). The second method was an in-depth interview at Healthco’s Head Office with the General Manager of Information Services (Interviewee A) and the General Manager for Projects and Business Development (Interviewee B). The interview lasted approximately 90 minutes following a semi-structured schedule of seven open-ended questions each with associated probe points. Hand-written notes were made during the interview as the interviewees did not want the proceedings to be tape-recorded. Subsequently these hand-written notes were transcribed by the interviewers and sent to the interviewees for verification and authentication (minor amendments to the transcript were identified, but it was generally agreed that the account was an accurate record of the interview and the interviewees’ responses to the questions posed). The complementary primary and secondary data enabled the contextualisation of the case, the clarification of technical or industry-related issues identified by interviewees, as well as data triangulation – corroboration of the findings about the organisation’s approach to governance and IT governance – through multiple sources of evidence (Yin, 1993).
Through this case study we aimed to answer the following research questions:

1. What are the current challenges faced by Healthco?
2. What experiences and knowledge did Healthco draw upon in developing their ICT governance approach?
3. What lessons did Healthco learn from implementing ICT governance and what recommendations would they provide to others in doing this?

In analysing the rich body of data collected, we followed the ‘data analysis spiral’ approach (Creswell, 1998) and the naturalistic inquiry tradition of qualitative research (Lincoln & Guba, 1985) to construct a case study account from which key findings were extracted and presented in this paper.

**DISCUSSION OF THE FINDINGS**

‘Healthco’ is a not-for-profit healthcare organisation based in Melbourne with Public Benevolent Institution status. During the 2008-2009 financial year, Healthco employed 1,400 staff, treated more than 33,000 clients through 1.7 million visits (this included both direct care and client-related contacts) involving nearly 600,000 hours of care and clinical staff travel of around 9 million kilometres. In the 2009 financial year the company had a turnover of approximately $96 million, with nearly 80% of its revenue coming from a contract with the Victorian Government to supply healthcare services.

The organisation is governed by a Board of Directors, which comprises 10 members with representation from healthcare professionals and other specialists in finance and accounting, law, communications and media, and business consulting. The Board has five sub-committees (i.e., Assets, Audit and Risk, Clinical Governance, Finance, Remuneration and Nominations), which have oversight for crucial areas of the organisation’s strategy and operations. The company has a Board level Corporate Governance Statement and Charter Statement, which describes the operating philosophy and provide guidelines on significant corporate governance issues including the operation of the interface between the Board, management and staff. The Board of Directors primarily interact with
staff at events (e.g. the Christmas Party, awards ceremonies), meaning that the majority of staff may not be personally aware of individual directors. However, as part of their orientation, new directors are required to spend a morning on the road with a clinical practitioner to gain an understanding of the nature of ‘the business’. With respect to middle level management, their primary interaction with the Board of Directors is at monthly board meetings.

Current Challenges Faced by Healthco

The interviewees stated that the company faced four main challenges in moving forward: changes in the external environment and increasing competition; rapid changes in IT; resourcing to accommodate the required changes; and visibility amongst the community and stakeholders. As they were now encountering and “attracting interest and competition” (Interviewee B), their major challenge was positioning the company for the future so that they could maintain their competitiveness. This “required insulation from any disruption to our major contract and for this we need growth and diversification” (Interviewee B). To achieve this, the company needs to maintain the delicate balance and keep making changes in “both the human aspects and the technology” (Interviewee A). The interviewees illustrated this with the example of adding new software, where due to a lack of continuous monitoring and support, the operating system became a liability rather than a resource. As a result, comprehensive cost-benefit analysis is now undertaken before funding decisions are made. Whilst the managers recognised the need to maintain competitiveness, they were also aware that it was imperative for the company to acquire and spend resources effectively and efficiently, as implementing the numerous projects “with limited resources [was creating] stresses and strains for [its] core business”.

ICT Governance: Healthco’s Experience, Knowledge and Principles

As evidenced by their Strategic Information Systems Plans (1995 – 2000; and 2003 to present), Healthco has had IT planning processes since the mid-1990s. In the early stages senior management recognised the need for an IT plan, which arose out of the Corporate Plan. By 2002, significant
changes within its operating environment (both internal and external) had occurred and the relationship between business needs and strategic IT plans was recognised. In 2006 the company carried out a major evaluation of its core business system, the Mobile Computing System. Through input from external IT consultants and key stakeholders (e.g. Health Computing Services and the Victorian Department of Human Services), the company went through a period of change that resulted in a significant investment in IT systems, with current capital expenditure estimated to be $1.5 million per annum.

Healthco’s core system is based on ITIL (Information Technology Infrastructure Library). Any new changes need to be structured as proposals and submitted to a ‘change board’ whose responsibility is to “prioritise the issues, decide what comes next and what is to be done” (Interviewee A). The ‘Change Board’ is made up of the Executive General Manager Services Delivery (the chair), the two General Service Delivery Managers, the Manager of the Customer Service Centre, the General Manager of Human Resources, and representatives from the IT Division (especially Informatics people). It is believed that this system has been received positively by the operations staff and managers as “the business people are happier that their needs are being met by a service department” (Interviewee A).

Following their extensive review of business operations in 2006, Healthco introduced PRINCE2, a project management methodology. In the past three years more than 50 people have been trained in this, from the executive down to IT operatives. The adoption of PRINCE2 was perceived by internal stakeholders as being significant as it “provided [Healthco with] a model of governance” (Interviewee A). As a result the company believes that they now “have a clearer idea about governance issues and responsibilities and how these fit into a project. PRINCE2 goes through all the governance issues, e.g. identifying stakeholders, clarifying board roles such as project sponsor (who provides the mandate for a project), and the (required) documentation unfolds as the project proceeds” (Interviewee A).

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past 4 - 5 years Healthco has also introduced a risk register, which fulfils the “need for a more systematic risk management process” (Interviewee B). Coupled with this they have established a risk committee at the senior management level which reports to the Board.

Interviewee A highlighted that they checked, under tendering arrangements, their vendors and suppliers in relation to their corporate governance systems or its equivalent. The main stimulus for the introduction of these checks had been earlier experiences coupled with the turbulent business environment, wherein some suppliers had gone into receivership. Currently Healthco does not have any in-house capability for software development and its main client system is managed by its partner service provider (an offshore company) which deploys new software and runs synchronised site recovery. However, the ancillary systems are still managed by the company itself.

To ensure the smooth functioning of its systems, Healthco undertakes a number of internal and external audits, with the latter being conducted by its stakeholders including the contract providers. Moreover, Healthco has a detailed set of procedures to ensure quality and continuous improvement across the organisation. One of its main Commonwealth Government clients, for example, does a regular audit of its performance. In its Customer Service Centre (a call centre taking around 20,000 calls per month) at least 3 calls per operator per month are checked, assessed and scored. This process can at times lead to quality improvement interventions (e.g. shadowing and coaching). There are formalised Clinical Leadership Groups that are aimed at improving clinical practice. Last but not least Healthco has also formalised an incident and complaint reporting system, which provides data on quality issues for further analysis.

Lessons Learnt and Recommendations to other Organisations
Reflecting on their journey in developing an effective corporate governance system, the interviewees were asked to comment on their experiences and provide recommendations for other managers and organisations planning to go down a similar path. In response, Interviewee A stated that the “focus
[needs to be] on documenting things in a way that other people can understand”. In other words, ideas being proposed should have clear guidelines and details regarding the necessity of the project as this can save time and money in subsequent discussion. Interviewee B stressed the need for top management commitment stating that an organisation needs to have an embedded “culture of continuous improvement” that is “encouraged by the CEO who should be prepared to invest and create a capacity for continuous improvement”. Interviewee A supported this, emphasising the need for communication before changes are made within the organisational system, whether it be at the strategic or functional levels and the catch word here was ‘change management’. He commented: “We have put considerable effort into change management. People should know what is happening, and should know what needs to be cleaned up from the past”. The next two recommendations can be summed up by the words ‘time and task management’ i.e. implementers should be “realistic about what you can do, do not allow yourself to be overwhelmed”, which can be achieved by breaking a task into smaller, manageable components (Interviewee B). Based on their own experiences, this interviewee reflected: “We have had an over-riding ambition about being the best, but we have been realistic about what we can do. We have sought to get the best value for money. Concentrating on ambitions can provide a springboard for the next focus”.

CONCLUSION

This paper has presented findings from a case study of a not-for-profit community-based healthcare organisation on its experiences with the development and adoption of corporate governance and associated ICT governance systems. Whilst this company does not follow the ISO/IEC38500:2008 standard (which is currently not available for certification), there was evidence of the sort of practices prescribed under this standard as well as the use of other tools and frameworks like PRINCE2 and ITIL which contribute to effective ICT governance. This highlights that although ICT governance is perceived to be more challenging in the public sector (Gershon, 2009), a sector which can be considered to encompass private sector not-for-profit providers in service industries such as health care, many companies in these industries are making efforts to embrace it. Further, based on the
experience of the interviewees in Healthco, comprehensive documentation, top management commitment, and appropriate skills to manage tasks and time are crucial when planning to implement such governance systems. Ensuring these elements are in place can help address the risk of failure or ineffectiveness of ICT governance systems.

Given that this exploratory paper is based on a single case study of an organisation within the not-for-profit sector, the generalisability of the findings is a legitimate concern, especially given the conclusion of Campbell, McDonald and Sethibe (2009) that there are systemic differences between public and private sectors suggesting that ‘a one size fits all approach to IT governance may not apply’. This caveat indicates that there is an opportunity for future research arising from this limited case study which could be addressed through a nationwide survey of organisations, across sectors and industries, to investigate the awareness of and the practices employed for ICT corporate governance. In conducting such a survey, comparisons could be drawn between the survey findings and the principles outlined in the ISO/IEC38500:2008 standard, and this we plan to do in the near future. To complement this survey, further and more detailed case studies (such as that reported by Wilkin and Riddett, 2009) would help with the interpretation of the survey findings and provide interesting points of comparison across different types of organisation, thereby validating and/or elaborating on the conclusion drawn by Campbell, McDonald and Sethibe (2009) about the contingency of IT governance approaches. We hope that other researchers in Australia will rise to this challenge to address what is an increasingly important area for most organisations today.
REFERENCES


Val IT (2008) Enterprise Value: Governance of IT Investments – The Val IT Framework 2.0, IT Governance Institute, Rolling Meadows, IL, USA.


