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Executive Summary

Modes of governance come in many forms; from rigid process structures to flexible workflow methods. Its' complexity or simplicity can be indirectly proportional to the size of the enterprise and exists as a code of conduct from senior level, filtering through the organisation promoting company-wide standardised process, practices and procedures. ICT governance in particular, benefits greatly from a centralised model by being at the front of technological and ICT process change, improvement and revitalisation, in achieving business operational and strategic goals. Many frameworks exist that provide differentiating levels of control to tiers of management, but a centralised structure governs can unite all.

Key to successful and sustainable centralised governance includes flexibility in process creation and critique that may involve multiple strategies. All ICT managers (including C-level) must been involved with and own the governance system they promote to impress upon all staff that change is for benefit that can support the individual with sufficient resources and time to perform work as the business reaps rewards from quality output.

Recent trends indicate that the ICT industry in Australia is continually increasing its annual investment and as larger product and service organisations fold into each other, investors and shareholders are looking to annual reporting of governance structures and financial data in defining competitive advantage in the market.

Centralised governance enables strategic guidance through internal and external management of process workflow and change. It should be upheld by other proven systems for procedure and project management, contributing to the organisational enterprise architecture. A new or revamped centralised governance structure can give the organisation strategic clarity and should be implemented through a scheduled and gradual approach, hopefully provide a path of least resistance.

Introduction

The core strength of effective ICT governance incorporates controls and measures standardised across the organisation to enable information technology to deliver strategic intent. It provides a platform where ICT decisions are cohesive with the goals of the business and in line with the organisation's project portfolio.

Traditionally ICT has been viewed as a simple internal services outfit but as through evolution of business technology, ICT is very much at the forefront of C-level managers' minds in delivering technological change and competitive advantage to the market. To assist in administering this change, governing systems must be implemented to manage and extract the maximum benefit from ICT.

The debate continues on which style of governance is most effective from the Sambamurthy and Zmud (1999) definitions of;

- o Federal mode where corporate and line management have split control between ICT
- Decentralised mode where line managers assume authority of ICT activities
- Centralised model where corporate have governance over ICT activities

The latter form of ICT governance is a centralised style where all processes and procedures are signed-off at the top level and unified throughout the wider organisation. A centralised system can benefit organisation in achieving strategic goals, cost benefits and enhanced corporate identity in the marketplace at a high level, while at the same time also impacting on low level tools, workflow processes and staff practices.

Governance Structures for Competitive Advantage

The Gartner research model (2003) below relates six forms of governance styles with five Decision Domains similar in theory to the model presented in MIS Quarterly by Sambamurthy and Zmud (1999).

Decision Domain Style	IT Principles		IT Infrastructure Strategies		IT Architecture		Business Application Needs		IT Investment and Prioritization	
	Input	Decision	Input	Decision	Input	Decision	Input	Decision	Input	Decisio
Business Monarchy			E ai véc		5					Cap app comm
IT Monarchy		atalii Na bortu	14 	IT leaders		IT leaders	- 156A) -	iner i lagi Sectional		
Feudal		in er er Der ber						i i na tá tá tra chi		
Federal	Exec comm Biz leaders		Exec comm Biz leaders		Biz leaders Biz proc own				Exec comm Biz leaders	
Duopoly		Exec comm IT leaders					Biz leaders Biz proc own Biz/IT rel mgs	Biz leaders Biz proc own		
Anarchy								1.111		
overnance m	echanisms	i ancos					C]Input right	s 🔳 De	cision rig
Exec comm Biz leaders IT leaders	mm Executive committee/C-levels ers Business unit heads/presidents IS CIO CIO offices and his unit CIO					Cap appr comm Exec comm subgroup includes CIC Biz proc own Business process owner Biz IT rol man Business //T rolationship managers				

Figure 1. IT Governance Arrangements Matrix Source: Broadbent M, Weill P (2003)

An IT monarchy is where corporate ICT holds the right to make decisions is in line with the Sambamurthy and Zmud (1999) centralised model. As corporations strive to attain a competitive advantage over their competition, businesses must look internally at there own intra-organisation strategies and business procedures. These strategies do not need to be singular. The clarification should be made that operating under a centralised model means that all business units are achieving their goals through standardised practices and methods. They may still have multiple strategies leading to multiple internal goals.

ICT governance structure or framework can bring on the notion of a controlling and bureaucratic organisation. Effective governance however allows the business processes to grow with its people. These multiple strategies employed throughout the organisation, once accepted as best practice company-wide, bring benefit to all employees are the organisation grows into a learning enterprise. The sum of multiple ratified strategies brings greater value than the whole. In an interview with CIO magazine (1995), Harvard Business School Professor and well-known strategist Michael Porter supports this by stating that "...there is a mistaken sense that there is only one right strategy for that industry ... if everybody's racing to discover one right strategy, nobody wins."

Centralised governance enables the stream-lining of workflow through different business units, allowing the organisation to synergistically refine practices and involve all stakeholders in the journey. Multiple strategies may certainly co-exist under this banner while the approach that is uniform. Governance framework can be designed with rigid step by step instructions or with built in flexibility to allow stakeholder to continually refine the process. This latter type of centralised framework is the key to the continual and successful life of ICT governance in practice. This incremental change is less invasive as a radial across-the-board modification to process and allows individuals to keep their beloved processes they have utilised over time.

By establishing this framework the organisation is sending a message to its employees promoting its corporate citizenship and potential future of the organisation. Computer Business Review (2005) believes that the enthusiasm of business leaders also need to understand the cultural change management the organisation will have to go through to make a centralised governance system survive. Effective change management processes are critical in implementing a governance process as organisation is bound to encounter employees locked into their own work practices and processes and who oppose change. If these issues are not mitigated, disparate ICT governance can create communication breakdowns, hidden processes and decentralisation.

CIOs must be effectively involved in ICT governance for success (Weill and Ross 2004). In fact they take on a pivotal role in each phase of the governance development lifecycle as they represent the business and ICT with the required sponsorship and senior support from gathering requirements through the design and build phases. This is important to make sure that all good processes and practices are not lost but integrated into the governance model.

Value for money in Governance

The traditional ICT department lives at the back of the organisation maintaining support, applications, technical jargon and a minimal budget. Carr (2003) references a study performed by the U.S. Department of Commerce's Bureau of Economic Analysis in 1965, less than 5% of capital expenditure went to US company information technology. This flood of computer systems and continual advancements in digital technology, that number has risen to nearly 50% in early 1990. As technology improves so should these figures. Executive are looking at ICT as the vehicle to deliver a competitive edge. Federal government special Minister of State Senator Eric Abetz revealed that ICT investment has increased 20 percent to AU\$5 Billion, with between 15 and 20 percent making up new investments (Bajkowski 2005).

Part of ICT Governance is about involving the broader enterprise in defining what ICT investments will bring maximum value to the organisation. Level of spend can be directly related to company size, capability and strategic intent.

Projects and programs of work in ICT must be chosen and run with precision and with the knowledge of best practices and lessons learned from prior failures and successes. An American project management publication PM Network (Sep 2005), state that 43 percent of ICT projects run over budget. This represents spending of a figure over \$17 billion (Figure 2). 53%





Decentralised organisations suffer reduced Net Present Value and do not have the ability to grow financially from best practice methods as they operate with multiple points of accountability, potentially increasing risk of widening performance gaps. While diligence and expertise is highly valued, standard are not passed on, so increasing repetition and engendering project inefficiencies.

This disjointed and erratic style of running an organisation is visible through end-of-year financial statements and investments documented in annual reports. In a survey conducted by the Australian Stock Exchange in 2005, it was found that 80% of private investors and 75% of organisations / professionals use corporate governance information in analysing or reviewing their investments, with financial statement reporting topping the interest category at 84% (Figure 3).



Figure 3. Types of governance information used Source: ASX Corporate Governance Survey 2006

ICT Governance does not exist within organisation in a vacuum. Governance methodology is implemented at the corporate enterprise level and is filtered down through business units and departments, centralising all under the one umbrella framework. This is confirmed by Mark Puzey et al (2006) of KPMG, stating that the same level of commitment to corporate governance needs to apply to ICT governance also. This empowers ICT as the enabler to achieve unified business goals and strategic growth.

In supporting a centralised governance model, the ASX has published ten recommendations (principles) in a 2003 report, *Principles of Good Corporate Governance and Best Practice Recommendations*. At a helicopter altitude, all principles (app A) underpin and encourage achievement of best practice centralised governance. In particular, solid foundations for management and oversight with the ability to enable to board to provide strategic guidance (principle 1) and encourage advanced performance through the disclosure of processes for evaluation (principle 8).

These guidelines along with emphasis on the Australian Corporate Governance Standard AS8015, provide adequate tools for developing strong governance processes and procedures across the departmental organisation. It is critical that governance methodology

stems from the corporate level, then broken down and supported by the ICT competency domain managers and broken down again for ICT methodology users.

The Australian standard

In 2003, the Standards Australia Committee published a standard. This was revised in 2005 and titled *AS8015: Corporate Governance of Information and Communication Technology*. The standard is written for company directors and senior management and provides guiding principles on evaluating, directing and monitoring the effectiveness and efficiency in the use of ICT within their organisations. It can also benefit the likes of technical specialists, services providers, auditors, vendors and consultants.

In forming an overarching standard practice, organisations are encouraged to adopt a centralised strategic approach particularly in ICT projects and operations. This set framework can assist stakeholders who may not be proficient with ICT methodologies and practices, in providing confidence in their organisations' ICT governance. The standard is not written like a 'to do' list but provides a theoretical starting point for effective and standardised governance.

Organisations that do not have the capability to implement formal structures and are finding their existing governance framework not adding value are key users of this guide. This document is important to guide and support those attempting to set robust centralised ICT governance in their enterprise.

Left of Centre

By its' definition, central governance stems from the central heart of the organisation. This mode of governance can only truly be centralised when it is common across all organisational departments including ICT. Off-centre or partial governance can be termed as a decentralised system and can result in multiple standards that can make effective governance more difficult and costly (Mercury Interactive Corporation 2006). Key attributes for both governance modes are detailed below (Figure 4).

Centralised system				
Key Advantages	Key Disadvantages			
- Single point of accountability	- Potentially costly to implement			
- Efficient auditing process	- May lose key data from integral staff			
- Final corporate responsibility for system	- Can create bottlenecks in change process			
- Ease of compliance standards	- Individuals oppose the corporate model			

Decentralised system				
Key Advantages	Key Disadvantages			
- Strong application and detail know-how	- Knowledge resides with individuals			
- Can save man-power and paper work	- Continual process re-engineering			
- Freedom for the individual	- Inconsistency in work approach			
- Unrestricted approach to problem solving	- Extensive training required			

Figure 4. Centralised v decentralised system brief comparison

The argument for a decentralised system is more prominent in smaller organisations that do not have documented processes. These could include small software houses and ICT support shops. It may be apparent that in some situations temporarily decentralising governance for some ICT functions may bring more knowledge acuity to the process. For example, in developing a specific software application, programmer skill and dexterity is crucial. In this same example one may have multiple programmers working on developing application content. While this draws in munch experience, how does one logistically manage this processes without some formal systems in place? Decentralised approaches often put tasks onto staff without considering resource and time allocation. Staff can easily become overloaded and workflow compromised. In addition to this increased pressure by the business for quality output, silos can form and divide company departments and skills.

It is important that senior C-level managers become involved and own governance procedures (Weill and Ross 2004) to support staff and avoid against them becoming disfranchised with the tasks at hand. With corporate level systems comes corporate level support and provision for efficient workflow. To achieve sustainable ICT governance, processes must be flexible and offer staff some independence to create, prove and use workflow systems as they find them effective. This is essentially and decentralised approach until the proven method is shared and integrated into the company centralised governance framework, making it available for critique and application by the wider organisation. This allows the company to benefit from the flow of specialised, collaborated and tested knowledge from skilled individuals, adding future value back to the business.

The Change

As organisations look ahead with this flexible model, implementation of a centralised system will depend on the quantity of decentralised practices, processes and acceptance within the organisation of the change. Ideally by adopting a centralised approach, organisations' absorptive capacity (Sambumurthy and Zmud, 1999) will assist the transition by bringing across valuable departmental process information, structures and knowledge. Formal

change management processes is key in staff accepting a central governance model and must reach across and involve all business units.

A tool for accessing and managing the scope of large change include industry-proven frameworks such as portfolio management approach to manage projects, the ICT Infrastructure Library (ITIL) to manage information, service and intellectual property and the ISO9000 system to manage workflow quality procedures and work instructions.

Controlling complexity is an important part of the governance implementation and change process (Bradbury 2006). Keeping it simple and not attempting 'big bang' implementation and ease resistance to the change as incremental modifications and improvements are made over a duly scheduled process. Organisational change is an expansive topic and should be defined under ICT governance requirements and business need. If performed progressively, a framework implementation should not consume excessive time and resources.

A Primary Governance Watchdog

Organisational value can be measured by the success and successful choice of its projects with ICT governance playing a major part in project methodology and deliverance. Making up an organisation's Enterprise Architecture, there are various low level ancillary systems and software tools that support the primary governance structure. These include processes such as Prince2 project methodology and Enterprise Project Management (EPM), however to standardise all projects in a cogent fashion, a high level project framework is required.

Portfolio management is a practice that rolls up all projects to a high level portfolio view to increase visibility to senior management. It is a pragmatic flexible framework for aligning ICT effort with the business and encompasses project features such as cost, timeline, risk, issues, scope and other key measurable and quantifiable data. This is an example of how a standardised system can streamline practices and make transparent the links, or lack of, organisational projects to strategies.

In the past couple of years, 'Project Portfolio Management' (PPM) has been gaining momentum in ICT circles. PPM can defined as the art and science of applying a set of knowledge, skills, tools, and techniques to a collection of projects in order to meet or exceed the needs and expectations of an organisation's investment strategy (PMI 2003). It is not a new process but one gathering interest in professional circles (Figure 5).

Company trends			
70%	PPM process in place less then two years		
87%	Developed PPM in house		
13%	Have implemented a PPM software tool		
Benefits from successful PPM			
70.4%	Report better project alignment with the organisation's business strategy		
57.4%	Report improved focus		
46.3%	Report smarter budget allocation		
42.6%	Report an increase in overall cost savings		

Figure 5. PPM maturity survey Source: PM Network, Oct 2005

In addition to physical practices, various ICT governance software tools are available that offer ICT decision makers and business leaders a view of ICT as a portfolio of investments that can be measured in terms of strategic value. This type of software can lend itself to reliance on a tool rather than concrete knowledge and experience and as James Snyder of the Centre for Project Management states (2003), can bring another level of bureaucracy to an organisation.

Nonetheless secondary ICT governance processes like PPM require management by experienced project professionals bringing a level of necessary bureaucracy to maintain and support the primary structure. Sambamurthy and Zmud (1999) allude to this in one of there named spheres of ICT activities, 'Project Management'. Centralised governance mode sees the Corporate IS holding the authority in PPM including key project decisions like project go / on-go, selection criteria, funding allocation, outcome and benefit to the business and project management methodology selection.

Another benefit of PPM is its flexibility. The most functional and practical methodology is not one however that is reproduced from a text. Project professionals and thought leaders come together with company directors in developing and customising their own unique process on ICT project approach. The result is a robust ICT governance framework.

Key factors for success include drawing on proven existing processes and principles employed by the organisation and integrating them into the governance structure so they are not lost; and also analysing the gamut of industry-wide project management processes and methodologies, whereby to select the best parts for adaptation and absorption into existing structure. Portfolio management is the glue that holds project governance structures in place. It provides centralised backing and managing for the right operational and strategic projects that have been approved at the highest level, giving the most chance for success.

Closing Thoughts

CIOs have the capability to understand information technology strategy and the importance of an integration of standards practices and protocols to achieve these strategies. It is from this senior level that flexible governance systems detailing code of conduct should be ratified, promoted and supported throughout the organisation.

Decentralised systems approach may solve short terms goals and be seen as a quick fix but this knowledge is lost if not integrated back into a centralised system. As true centralised ICT governance emerges from overall corporate governance, there is improved hyperopic vision of where the business is heading and how long terms strategies can benefit all in the long run. In contrast, while individuals who operate under this system espouse that they are achieving what they have been tasked with, this myopic view does not form part of a growth model or promote future endeavours for the business or employee.

Centralising ICT governance requires clear, simple and concise explanations, ideally in a statement on exactly what governance covers. Stringent but pliable management is required with the support and sponsorship of the portfolio of work by senior executives with new and revised systems being implemented over time to achieve one united tactic. The system must have built in an adequate level of flexibility in the corporate entity to promote the ongoing growth of internal ICT knowledge which is paramount in gaining acceptance and ratification of processes and procedures.

Although somewhat hybrid this style still comes under the banner of centralised ICT governance. Draft processes are created by the individual then inserted into the larger model or ratification. All profits from the growth of not only tangible company intellectual property and process, but also draw on the wealth of its human capital. Organisations and connected business units that form part of the company value chain can only stand to benefit from this united governance posture.

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Appendix A: ASX Essential Corporate Governance Principles

A company should:

1. Lay solid foundations for management and oversight

Recognise and publish the respective roles and responsibilities of board and management.

2. Structure the board to add value

Have a board of an effective composition, size and commitment to adequately discharge its responsibilities and duties.

3. Promote ethical and responsible decision-making

Actively promote ethical and responsible decision-making.

4. Safeguard integrity in financial reporting

Have a structure to independently verify and safeguard the integrity of the company's financial reporting.

5. Make timely and balanced disclosure

Promote timely and balanced disclosure of all material matters concerning the company.

6. Respect the rights of shareholders

Respect the rights of shareholders and facilitate the effective exercise of those rights.

7. Recognise and manage risk

Establish a sound system of risk oversight and management and internal control.

8. Encourage enhanced performance

Fairly review and actively encourage enhanced board and management effectiveness.

9. Remunerate fairly and responsibly

Ensure that the level and composition of remuneration is sufficient and reasonable and that its relationship to corporate and individual performance is defined.

10. Recognise the legitimate interests of stakeholders

Recognise legal and other obligations to all legitimate stakeholders.

Exert from ASX 2003, Principles of Good Corporate Governance and Best Practice Recommendations

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