Week 4
IT Governance and Management

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Week 4 Outline

- Reading: Chapter 13, ICT Governance and Management, p427 – p465

- IT Governance and Management
  - Governance
  - Budget
  - Management Role in IT Initiatives
  - IT Effectiveness
  - The Competitive Value of IT

Learning Objectives

- Understand the scope and importance of IT Governance

- Review IT Roles and responsibilities of Users, the IT department and senior management

- Discuss the importance of the IT Budget and the process for developing the budget

- To review the factors to enable sustained excellence in the application of IT

Introduction

- IT Governance – process, reporting, roles, relationships an organisation develops to make decisions about IT resources and activities and to manage the execution of those decisions

- IT Budget – critical management responsibility for supporting the activities undertaken by the organisation

- Management Role – extremely important role in the success of IT activities, focussing on risk management an mitigation

- IT Effectiveness – discuss what successful organisation have done to ensure success

- IT to improve competitive position

IT Governance

- Principles, processes and organisational structures that involve IT Resources (Drazen and Straisor, 1995)

- Aimed at answering the following questions

  - Which process and committees to define IT Strategy
  - Who sets priorities and how are they set
  - Who is responsible implementing IS plans and what principles will guide implementation
  - How are IT responsibilities distributed between IT and the rest if the organisation, centralised vs decentralised for integrated IT delivery
  - How are IT budgets developed

- If these questions cannot be answered – IT projects become uncontrolled and "invisible"….

IT Governance - Functions

- Determine the distribution for responsibility for making decisions, the scope of decisions by function, and the processes to be used for making decisions
- Define roles the members in the organisation fulfill within the processes and various committees – we wear many hats!
- Define IT centric processes for making decisions in key areas:
    - IT Strategy development
    - IT Prioritisations and budgeting
    - IT Project Management
    - IT Architecture and Infrastructure Management
- Define policies and procedures that govern the use of IT

IT Governance – Example Org. Chart

CIO

Architecture

Clinical

Business

Infrastructure

Risk

Privacy

Security
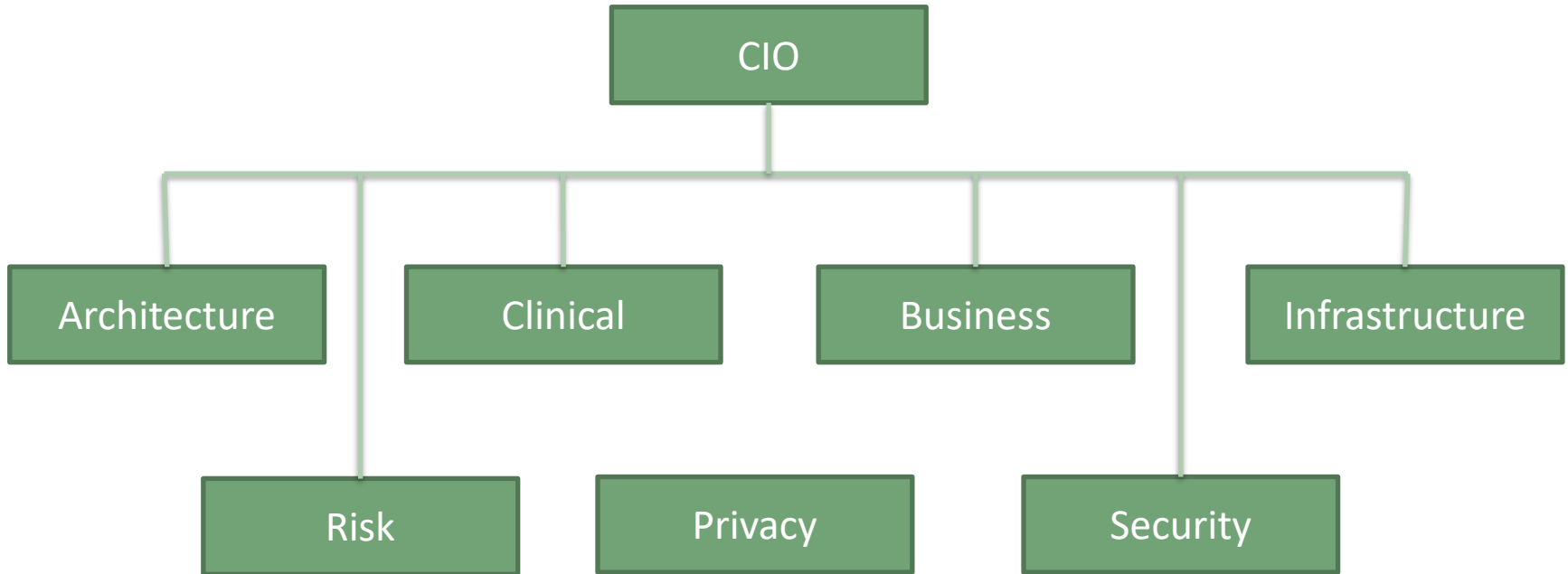
Governance Characteristics

- Objective and Fair: Decision making and defining strategy is political and often requires trade-off and changing priorities, governance will provide a platform for visibility and fairness

- Efficient and Timely – allow quick decision making, efficient governance processes, remove bureaucracy

- They make authority clear – committees and individuals have decision authority

- They can change – as its environment and its understanding changes

IT, Users and Snr. Management responsibilities

- Effective application of IT requires thoughtful division of IT responsibilities
  - Who supports Network infrastructure and related decisions
  - Who own and support clinical EPR and related decisions
  - Clinical EPR do not make Network management decisions!

- With IT responsibilities comes the decision making associated with the IT function

IT Department Responsibilities

- Developing (contribute) and managing long tern architectural plan and ensure projects conform to that plan

- Developing a process to establish , maintain and evolve IT Standards
  - Integration standards
  - Clinical standards
  - Desktop image management
  - Customer support (L1,2,3)
  - Database management
  - Service Management, creations and support
  - Operational procedures
  - Access control procedures

- Depending on the division of responsibilities helps define the span of control
- Ensures services and procedures and managed efficiently and effectively

User Responsibilities

- Manager/Supervisors have IT User related responsibilities
  - Understand the scope of quality of IT activities
  - Ensure that the goals of IT initiatives (projects) accurately reflect the functions needs (not a "nice-to-have") and resource estimates for IT initiatives are accurate, e.g. enhancement requests, new service implementation and operational support costs
  - Develop and review specifications for IT initiatives, give feedback, review RFR, implementation issues, application enhancement functionality are needed by the user department
  - Ensure applications and service are functioning properly, patched, updated, vendor supported version, system reports, account management and clean up
  - Participate in developing and maintaining the IT agenda

Senior Management Responsibilities

- Ensures the organisation has a comprehensive, thoughtful and flexible IT Strategy
- Ensure balance between perspectives and agenda of the organisation and users. Best of breed vs bleeding edge
- Establish standard processes for budgeting, acquiring and implementing and supporting IT applications and infrastructure
- Ensure IT purchases and supplier relationships, legal contracts and control
- Develop, modify and enforce the responsibilities and roles of the IT organisation and users, "who said you can do that...?"
- Ensure IT applications and activities conform to relevant regulations, required management controls and risk management
- Encourage thoughtful review of new IT opportunities and appropriate IT experimentation

Senior Management Responsibilities

- Allowing **too much user** distributed decision making (or not making sure staff understand the limitations of their decision making capability)
- Can lead to uncoordinated IT initiatives
- Also:-
  - Inability to achieve integration between highly heterogenous systems
  - Insufficient attention to infrastructure, creating application instability (infrastructure refresh programmes)
  - High IT costs due to lack of economies of scale, redundant activities and cost of supporting wide range of applications (lack of consolidation)
  - Lack of rigour around assessment of IT Strategy initiatives

Senior Management Responsibilities

- Allowing **too much IT** responsibility can lead these kind of problems:-

  - Too much focus on technology implementations and design requirements, for example reject applications because they needs a solution design that does not fully match IT technology implementation at that time (will not change technology to meet need)
  - Failure to achieve value of the application because the implementation was based on IT view of what a user needs, causes rejection. "we know what they want.."
  - Inflexible/rigorous investment decision process
  - High proportion of the IT budget applied to IT infrastructure rather than clinical/business applications (what is the right balance?)
  - Reduced business innovation when IT unwilling to experiment with new technology that might have supportability (and technical stability) problems
  -

Specific Governance Structures

- Organisations create a wide range of committees, tables, review teams, working groups to support the complexities of managing and controlling the business

- These teams must work in harmony in order to be effective for the organisation

- 5 core structures:-
  - A board committee responsibility for IT
  - Senior leadership forum that guides the IT agenda, budgeting, IT policies (i.e. Access Control/User Passwords)
  - Initiative and project specific committees
  - IT Liaison relationships
  - Chief Information Officer (CIO) and other IT staff members

The Board

- The Health Care Board holds fundamental accountability for the performance of the organisation
- CIO reports to the Board on IT operations, projects, and status
  - Finance reports
  - Risks and Mitigations
  - Budget reports
- Some members of the Board may have IT background
- Possible sub-committee review boards needed to support deeper understanding of IT

Senior Leadership Organisational Forum (Team)

- Represented by senior figures from top level organisation functions
- Desirable to have CIO as part of this team
- Review and commit to strategic IT strategy
- Review and question IT project initiatives
- Owns the "Intake" process, a process to manage IT service requests and enhancements
- Aligned to the needs of the clinical community

IT Liaison Relationships

- Clinical and non clinical functions (Finance for example) need to have a close relationship to the IT function

- Helps to develop closer working relationships and understanding of function and ICT challenges

- Helps communicate the challenges to IT

- Ensure representation during planning and IT strategy development

- Quid pro quo, ensure that IT strategy, plans and policies are communicated back to the function groups

IT Budget

- Critical management task involves the commitment of resources (people/cash)
- Forces management to make choices over initiatives
- Budgets may be fixed long term or annual
- Challenges
  - Eclectic (non-aligned) project proposals, often function specific with little strategic alignment
  - Possibly hundreds or proposals, arriving sequentially
  - Challenging to understand requirements and value
  - Aggregate cost for capital and operating budgets can be too high (3X budget allocation!)

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- How can we get it all done? generally we cannot, choices need to be made

IT Budget Categories

- Capital and Operating (this is not a financial course, but…)

  - Capital $$$ is required to support new initiatives and investments in IT assets, services and infrastructure, initial license fees)

  - Operating $$$ are required to fund the upkeep and *support* of current service and infrastructure, staffing costs etc.

  - The PID (Project Initiation Document) should define both Capital costs and Operating costs over a period of years after the initiative go-live

Support, Ongoing and New IT

- **Support** refers to IT costs related to staff, infrastructure, licensing, 3rd party vendor support (Gold/Platinum services)
    - Application maintenance and support contracts ensure access to current supported releases, incident (bug) support and user communities
    - Infrastructure refresh program , i.e. replace database platform every 3 years
    - Application/Service monitoring
- **Ongoing** projects are active projects that were started in a previous year (or earlier). Not uncommon for projects to take server years to complete due to scale/scope of project. E.g. EMR Adoption or Provincial EPR
- **New IT** projects – activities that have been approved to go ahead

Improve Current Operations or Strategic Plan – Budget Targets

- Examples:-

  - Operating not to grow beyond 3%
  - 2% additional Capital investment
  - Fixed over the next 3 years (no cost of living increase)
  - 3% increase of operating expenses (license increase)
  - $10M infrastructure refresh program (continuous)
  - The budget plan needs to fit within defined business constraints

Budget Planning

- Step 1
  - Initial Operating Budget
    - Salaries, Licensing, Contracting, Infrastructure

- Step 2

  IT leadership reviews business strategy, ongoing projects and submitted proposals

- Step 3
  - Refine proposals in line with strategy and develop the initial IT Strategy

Budget Development

- Step 4 Business functions and IT discuss the IT Budget and review
  - Examine for possible savings
  - Consolidation of services benefits
  - Defer new initiatives to another time

- Rule – sponsors should present their own IT requests (not through IT)
  - Force assessment of trade-offs between IT and non-IT
  - Forces accountability for investment results
  - Gets IT out of the role for defending other peoples operational improvements

Budget Development

- Step 5
  - Executive management review the IT Operating and Capital budgets
  - Accept, or ask for refinement
  - Take to the Board for approval

Comments…

- Contingency Funds – do not always use the available budget at once, think about risks and having the ability to adapt to new situations
- Think about the cost of money over time, don't borrow what you are not going to use
- You don't always get what you need (or want)
- Plan and embrace change

Management Role in Major IT Initiatives

- Failure rate of IT project is relatively high (over budget, did not deliver on time, no benefits realised)

- In clinical situations it may not be possible to cut the losses because the project is critical to the delivery of patient care

- Project failure rates suggest that management should be more worried about implementation that strategy

- Visions and Strategy do not always succeed or diminished because organisation is unable to deliver them

- Senior Management may not always understand why projects/initiatives fail

- Lets discuss some factors that imperil implementations…

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Lack of Clarity of Purpose

- What are the objectives and purpose of the project?
  - Clear?
  - Unclear?
  - How does the initiative answer the business need?
  - Does the initiative make sense to the user, will it help with their issues?
  - How are the benefits defines, are they clear, improbable?
  - Does it recognise the true issues

Lack of Belief in the Project

- People involved with the initiative do not believe the project has value or will make things worse than they already are
- Believe that changes to work processes impact efficiency rather than improve it
- "we already have a solution that does that why do we need to do this...?"
- WIFM – "What's in it for me?"
- Bad OCM Organisational Change Management
- No interest, does not benefit me….

Insufficient Leadership Support

- Committed to the initiative but does not demonstrate that commitment

- Cannot make decisions when it comes to supporting their initiatives, commitment fails when challenged

- "told you so"… Leadership recognises issues in the plan, yet votes to proceed without voicing concerns and having them discussed. When issues arise then fingers are pointed

- Leadership disappears when problems arise

- Political pressure, capitulate to other stronger players

Organisational Inertia

- Busy operational staff are under pressure to maintain services, managing and controlling projects is problematic, stress, fatigue, overloaded resources

- Change can be threatening, loss of jobs (yours?) lead to mental health issues,

- Poor communication of the impact to the staff/workforce

- Loss of power (ability to make decisions, work domain)

- Too many projects over a diverse range of services and teams – creates confusion, what are the priorities?

- Larger organisations take longer to change – is this a problem when consolidating services?

Organisational Baggage

- Organisational culture
- Never been through this before
- Never tried to do complex and protracted initiatives
- Lacking experience in many areas
- Past experience says it is going to fail
- Leaders fail to deliver, so why should they now?
- Little faith, ensuring acceptance is weak before even starting

Lack of an Appropriate Reward System

- Organisational policies, incentives and practices can hinder a project

- Rewards may not recognise other things staff do, only reward for "job description"

- Payment programs not aligned with organisational strategy
  - Care providers paid for working at one site, yet expectation is that they span many due to using integrated services delivery

- Poor performance management systems and rewards, no bonus system in a provincial healthcare system

Lack of Candor

- Organisations can create an environment where healthy debate is not encouraged
- Intolerance towards being challenged, ego and thinks it need a team to get things done
- Survival, outlast the initiative or the leadership
- Hiding mistakes, not reporting issues and cover-ups
- Problems will surface, the truth will-out…

- Internal reflection, did the intolerance of Snr Management create the issue?

- "Project status, green, green, green, red – What!"

Project Complexity

- Determined by:-
    - Number of people involved and those that will be impacted by the project and the depth of the changes
    - Number of organisational processes that will be changed and the depth of those changes
    - Number of processes linking the organisation and other organisations that will be change
    - The interval over which the project change will occur, quickly, or gradually?
    - Scope, complexity and depth make it difficult to understand what the project needs to do
    - Requirements are not fully known, adjusting later is difficult and it becomes clear what is needed
    - Death by a thousand cuts, project too complex with many issues
    - Is the project team up to the task (experience)

Failure to Respect Uncertainty

- Very few people really understand the impact of organisational change – creates uncertainty

- Cannot be totally sure what impact process changes will really have

- Can compare to other situations as a model… but… having belief in that can be problematic

- Agility is key in responding to a change that is not working and alter is direction (is it bad to say "I was wrong?")

- Leadership has to acknowledge that change is necessary even though it might not meet their personal vision (or idea)

Initiative Undernourishment

- Challenge is to achieve as much as possible with the resources available

- Set unrealistic challenges, do the work of 10 people with 5 in the same time or less, seems like a good challenge and full of bravado – thinking people will work extra hard through effort complete the task.

- But can create an unrealistic situation and setup the staff for failure (and the leadership)

- Over loading the best workers, in itself breeds resource issues, those resources become tied to critical projects, and when the next one arises then it is difficult to get the resource to move, also prevents other resources from developing the necessary skills to become one of the best workers!

- Needs proper prioritisation and staff skill development

Failure to Anticipate Short-Term Disruptions

- Major change often impacts current operations: processes and workflows change they take time to settle in
- It takes time to learn new applications and improve understanding
- Management must listen to feedback from operations and measure results (delays, roadblocks, constraints)
- Tolerance is needed during the period, allow poor results and grow understanding of issues and look to remediate
- Left too long, it can mean users turn away from the new system

- How long is too long?

Lack of Technology Stability and Maturity

- Often internal IT technology may be old and have a negative impact on the newly introduced system

- Incompatibility in configuration can cause instability problems

- Immature technology (bleeding edge) can play a significant role in new systems

- Lack of internal skills and reliance on vendors to problem solve inside an environment they have little knowledge of

- Pilot project may have been overlooked as a way to increase learning, uncommon for projects to rely on "adequate performance"

- The scope of change covers many different applications and technologies compounding the complexity and interoperability of applications and services

How to Avoid the Mistakes

- Ensure the objectives are clear
- Communicate objectives, test degree to which the organisation have bought into them (ADKAR – Awareness, Desire, Knowledge, Ability, Reinforcement)
- Publicly demonstrate conviction – be there!
- Respect organisational inertia
- Distance the project from organisational baggage, select appropriate leaders
- Change the reward system (if possible) for the participants
- Accept and welcome debate and discussion, no recriminations
- Address complexity, break down into smaller projects
- Accept there is much you do not know, be prepared for change within the project

How to Avoid the Mistakes

- Supply the proper amount of resources necessary assign to you best team (available?)

- Note: it is often difficult to commit operational staff to large projects in a clinical environment, skilled staff are needed on the front line, often have to rely on contractor/external resources

- Try to limit the short term disruption, but accept that it will occur

- Be wary of new technology and its complexity within the scope of the project change

IT Effectiveness

- Individuals and Leadership Matter
- Relationships are critical
- Technology and the Technical Infrastructure both enable and hinder
- The Organisation Must encourage Innovation
- True Innovation Takes Time
- Evaluation of IT Opportunities must be thoughtful
- Processes, Data, Business Model Change form the basis of an IT Innovation
- Alignment must be mature and strong

Individuals and Leadership Matter

- Critical to an organisation to posses talented, skilled and experienced individuals
- Across a range of roles
- Strong contributors
- Leaders are in it for the long haul and the right reasons
- Often this is not in place when embarking on important new technologies, leading to failure or reduced effectiveness

Relationships are critical

- The members of the team must also be strong
- Team roles must be filed by competent and skilled staff
- Great chemistry and "fit" between team players
- Ability to substitute team members

Technology and the Technical Infrastructure both enable and hinder

- CIO must have an understanding of both Technology and Clinical fields

- Must have an understanding of the maturity of technology

- May require a Chief Medial Information Officer (CMIO) as part of the Senior Management Team

- Stresses the importance of a well developed technical architecture to support innovations, service and applications

The Organisation Must Encourage Innovation

- IT leadership and organisation culture must encourage innovation and experimentation

- Must be practical and goal directed towards business problems

- Will require budgets and senior management support and identify deliverables

True Innovation Takes Time

- It takes time to develop new services, applications and make organisational changes – and a lot of hard work!

- Can take many years to evolve – is challenging in this environment to keep up the support and energy when many other problems exist

- Innovation has to evolve until it matures into a mature product or service

Evaluation of IT Opportunities must be thoughtful

- Any investment requires analysis and understanding, thus a thoughtful approach is required

- Decision are based more on "feel" to guide investments

- Avoid knee jerk reactions to solve political pressures

Processes, Data, Business Model Change form the basis of an IT Innovation

- Effective IT initiatives are based on managements understanding of current organisational limitations

- Strategic initiatives should focus on core business elements (patient care, flow, cost savings – themes)

- Expand on capturing and reusing critical business data and enabling new data models to understand business effectiveness

Alignment Must Be Mature and Strong

- Great cohesion between IT activities and business challenges

- Must be mature based on working relationships rather than methodologies

- Doing the right things at the right time

The IT Asset is Critical

- Overall – critical factor to effective IT use are the skills and orientation of senior leadership
- These leaders are convinced that IT will change the organisation
- They look to the IT Agenda to make significant improvements on organisational performance rather than as secondary strategy

5 Management Behaviours

- Study rather than avoid IT, learn, discuss and introspection
- They incorporate IT into their vision of the future and communicate that role in their vision
- Actively engaged in IT Architecture discussions and high level decisions. Take part in IT proposal review and implications
- Ensure IT is incorporated in core management processes
- Continuously pressure the IT department to improve efficiency and effectiveness (be visionary)

Summary

- Management and leadership play a significant role in determining the effectiveness if IT in the business

- Management creates processes, practice and procedures to make IT decisions

- Budgets are a critical part of these processes

- They turn strategy into reality

- They can be a contributor to success or failure of IT initiatives

- There are mitigations that can be used to protect against failure

- IT is a tool, but requires skills atall levels to be effective