Subject Overview

Organisational Issues in IT – IACT 916

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Acknowledgment to KM & AjC, MB et al

About me 😊

- Qualifications
  - BSc (UNSW) DipEd, DipCom (BIS) MCom (Hons) @ UoW
  - PhD (UoW) – Usability of OLAP and MDD

- Work experience
  - Teaching Secondary school (12 years)
  - Purchase, install, train and support OASIS (4 years)
  - Pegler and Hyland Consulting - CBT for Pilkington Glass
  - University of Wollongong Lecturer / Senior Lecturer (10 years)
    - Consulting for Murdoch Magazines
    - Projects with State Emergency Service, NSW Police

Lecture 1

- Introduction
  - Why study organisational issues in IT?
- Course structure
- Assessment
- Introduction to organisation theory

Why Study Organisational Issues in IT?

- IT is NOT a goal in and of itself. IT exists to support organisations as they struggle to deal with strategic, tactical and operational issues. We must understand these issues to get the most out of IT for the organisation
- The IT unit faces many organisational issues, itself
- Most IT project failures occur because of organisational rather than technical issues
Course structure

- A mixture of lectures and tutorial exercises
- Please feel free to contribute or ask questions
- Subject outline
- Subject resources

Text books:
- “Organisation Theory”, Robbins & Barnwell
- “Power, Politics and Organisational Change”, Buchanan & Badham

Subject Content

- Aims to provide the student with an understanding of issues related to the combination of management, workers and information technology.
- Effects of technology on organisational information flows:
  - growth, size and complexity
- IT as a catalyst in defining/evolving work procedures and creating new structures

Two interwoven strands

After looking at organisational models we will use these models to understand

1. How IT can deal with organisational issues and
2. And how to manage the IT function in an organisation

Assessment Details

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<td>2. Report - group</td>
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9/24/2003
1. Report - Individual
Topic: “Understanding organisational change in IT sector companies, #1”
- Report format, worth 15%, 1500 words
- Track the evolution of a global company in the technology sector that has undergone major organisational changes (i.e. since 1998) e.g. mergers, acquisitions, downsizing, outsourcing, privatisation
  1. How have these changes impacted on the company’s organisational structure? e.g. strategy, size, culture, organisational design
  2. What types of technology measures could be instigated to manage these organisational changes in order to maximise effectiveness and minimise disruption?
- Provide an outline of your report including a brief summary under each major heading and a list of references and their key contributions.

2. Report - Group
Topic: “Understanding organisational change in IT sector companies #2”
- Groups of 2-3 persons, 30%, report format, 5000 words
- Select one of the previously identified global companies in the technology sector and explain in detail how it has evolved / undergone organisational changes recently (i.e. since 98)
  - E.g. mergers, acquisitions, downsizing, outsourcing etc
- What effects have these changes had on the structure, design and effectiveness of the organisation

3. Group seminar
- Present the material produced in assessment task 2 as a group seminar.
- Use PowerPoint, overhead transparencies or other display tools
- Expect to talk for about 15 – 20 minutes on your case study
- Allow time for questions

Questions
- Any Questions?
### 1 The Bigger Picture

#### Determinants of Organisational Structure
- Strategy
- Organisation size
- Technology
- Environment
- Power-control

#### Applications:
- Managing the environment
- Managing organisational change
- Managing organisational culture
- Managing organisational evolution
- Managing gender etc.

### Areas of specific interest

#### Determinants of Organisational Structure
- Strategy
- Organisation size
- Technology
- Environment
- Power-control

#### Applications:
- Managing the environment
- Managing organisational change
- Managing organisational culture
- Managing organisational evolution
- Managing gender etc.

### Defining these key concepts

- **An organisation**
  - is a consciously coordinated entity,
  - has a relatively identifiable boundary,
  - functions on a relatively continuous basis to achieve a common goal or set of goals.
  - By this definition, the IT function/unit is also an organisation

### What is organisational structure?

- **Organisational structure defines**
  - how tasks are to be allocated,
  - who reports to whom, and
  - the formal coordinating mechanisms and interaction patterns that will be followed.
**Some dimensions of Organisation Structure**

- Complexity,
  - Degree of horizontal and vertical differentiation
- Formalisation,
  - Degree to which roles are rigidly defined
- Centralisation
  - Degree to which decision-making is “spread out”

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**What is organisational design?**

- Organisational design involves
  - constructing and changing an organisation’s structure
  - to achieve the organisation’s goals.
- Like building and re-modelling a house
- There are several well-known designs
  - Autocracy
  - Bureaucracy
  - Ad hoc etc

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**Criteria for Organisational Effectiveness**

1. Overall effectiveness
2. Productivity
3. Efficiency
4. Profit
5. Quality
6. Accidents
7. Growth
8. Absenteeism
9. Turnover
10. Job satisfaction
11. Motivation
12. Morale
13. Control
14. Conflict/cohesion
15. Flexibility/adaptation
16. Planning and goal setting
17. Goal consensus
18. Internalisation of organisational goals
19. Role and norm congruence
20. Managerial interpersonal skills
21. Managerial task skills
22. Information management & communication
23. Readiness
24. Utilisation of environment
25. Evaluation by external entities
26. Stability
27. Value of human resources
28. Participation and shared influence
29. Training and development emphasis
30. Achievement emphasis

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**Organisational theories**

- To understand ORGANISATIONAL structure, design and effectiveness, we need to first understand some underlying concepts that people have used to understand organisations:
The Systems Perspective

- A system is a set of interrelated and interdependent parts arranged to produce a unified whole.
- Takes inputs, transform them, into outputs.
- Types of systems: Closed vs Open
- In an open system the environment plays a very important role. Feedback is received from the environment which allows the organisation to be shaped in a direction.

Evolution of Organisation Theory

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Type 1 Theorists - Taylor

- Scientific management
- Time and motion
- Adopted by Ford Motor Company
  - Production lines were developed
  - To increase output
  - Workers became exhausted
  - But more workers were always available
  - Money main incentive (piece work)

Type 1 Theorists - Fayol

- A Process oriented approach called Universalism
- Plan, organise, command, coordinate, control
  - Specialisation
  - Chain of Command
  - Unity of command (one boss)
  - Span of Control (optimum subordinates)
  - Minimum Authority levels
- Remuneration
- Discipline
- Job Stability for personnel
- Esprit de corps.
- Subordination of individual interests to the general interests
- Later studies by Mintzberg and Kotter suggest managers do NOT do this. Instead they use networks & personal contacts
Type 1 Theorists - Weber

- Organisations need consistency - Bureaucracy
  - All tasks are seen as routine
  - Each person an expert on their task
  - All transactions are written
  - Regular activities distributed as fixed official duties
  - All activities follow the organisational hierarchy
  - Operations receive equal treatment under consistent system of abstract rules
  - Officials act formally, no emotional involvement

- 20 Italian bureaus to reduce bureaucracy

Type 2 Theorists - Mayo (Whitehead, Homans & Roethlisberger)

- Hawthorne Studies
- Workers improved whatever the changes
- Motivated by “feeling valued” not just money or rational goals
- Co-operative Systems
- Era of organisational humanism
- Manager-employee relationships

Type 2 Theorists - McGregor

- Examined current theories of behaviour of individuals at work -
- Found two broad views: Theory X & Theory Y
Theory X assumes that:
- The average human being has an inherent dislike of work and will avoid it if he can.
- Because of their dislike for work, most people must be controlled and threatened before they will work hard enough.
- The average human prefers to be directed, dislikes responsibility, is unambiguous, and desires security above everything.

These assumptions underlie most organizational principles today, and give rise to both:
- “tough” management with punishments and tight controls, and
- “soft” management, which aims at harmony at work.

Both tough and soft management approaches are “wrong” because a person needs more than financial rewards at work. He or she also needs some deeper, higher order motivation - the opportunity to find fulfillment.

Theory X managers do not give their staff this opportunity ... so the employees behave in the manner their managers expect.

Theory Y assumes that:
- The expenditure of physical and mental effort in work is as natural as play or rest.
- Control and punishment are not the only ways to make people work, a person will be self directed if he or she is committed to the aims of the organization.
- If a job is satisfying, then the result will be commitment to the organization.
- Under proper conditions, the average person learns, not only to accept, but to seek responsibility.
- Imagination, creativity, and ingenuity can be used to solve work problems by a large number of employees.
- Under modern, industrial conditions, the intellectual potential of the average person is poorly utilized.

Comments on Theory X and Theory Y
- These assumptions are based on social science research, and demonstrate the potential which is present in man and which organizations should recognize in order to become more effective.
- McGregor sees the 2 theories as two quite separate attitudes. Theory Y is difficult to put into practice on the shop floor in large mass production operations, but it can be used initially in the managing of managers and professionals.
Type 2 Theorists - Maslow

1. Initially, a person may be motivated by biological needs - monetary need
2. Then a person requires safety - job security
3. Then social interaction is most important - human relations ideas
4. Then self esteem - needs autonomy, dignity, respect
5. Finally self actualization - needs a challenge, wants to excel at his or her job, be creative

From 1945 to 1965 the Minneapolis Gas Company surveyed 31,000 male & 13,000 female employees to find out what they desired most from a job.

- Only slight variation between men and women.
- Security was the highest rated factor.
- The next three factors were:
  - advancement
  - type of work
  - company - proud to work for
- Surprisingly, factors such as pay, benefits and working conditions were given a low rating by both groups. So after all, and contrary to common belief, money is not the prime motivator.
- (But don’t reward employees poorly or unfairly.)

Type 3 Theorists

Simon, Katz & Kahn, Woodward, Perrow

- The Contingency or situational approach:
  - neither mechanistic nor humanistic
  - emphasizes the fit between organization processes and the characteristics of the situation.
  - questions the use of universal management practices
  - advocates using traditional, behavioural, and systems viewpoints independently or in combination to deal with various circumstances
  - assumes that managerial behaviour is dependent on a wide variety of elements
  - calls for fitting the structure of the organization to various possible or chance events. and.
Type 4 Theorists
March & Simons, Pfeffer

- Cognitive limits to rationality
- Organisations as political arenas
- Recognise the limits of a decision-maker
- Acknowledge conflicting goals

1980s: Populist approach
“The One Minute Manager”, Blanchard

- Three secrets of management
  - One minute objective setting
  - One minute praising
  - One minute reprimand
- The ABCs
  - Activators - actions taken by manager before someone can accomplish a goal
  - Behaviour - what the person says or does
  - Consequences - actions by manager (praising / reprimand / new objective)

1980s: Empirical approach - Ouchi

- Well managed companies in US and Japan had lifetime employment, collective decision making, promotion from within the organisation, non-specialised career paths.
- Characterised as a “democratic” management style
1990s: Empowerment

- Authorising employees to do their work without the need to seek approval from supervisors
- Gives a sense of responsibility and achievement to employee
- Reduces delays in flow of work
- Reduces work-load on manager
- Exception reporting
- Used widely in Business Process Reengineering projects

2 Changing nature of IS/IT

- Electronic accounting machines - ‘50s
- Data processing departments - ‘60s
- Information systems - ‘70s
- IS plus information services - ‘80s
- Enterprise information portals - ‘90s +

Role of IS/IT in organisations

- A necessary evil - 1950s and ‘60s
- General purpose support (‘60s and ‘70s)
- Support customized management control (‘70s and ‘80s)
- A strategic resource (85 – now)

Technology Assimilation – “Six” Stages of Growth

Stage 1. Initiation
Stage 2. Contagion
Stage 3. Control
Stage 4. Integration
Stage 5. Data administration
Stage 6. Maturity
Stage 1. Technology is introduced into organisation. Some users begin to find applications for it. Use grows slowly as people become familiar with technology.

Stage 2. As more people/departments use technology, demand increases and use of technology proliferates. Enthusiasm for technology grows rapidly.

Stage 3. The issue of costs versus benefits intensifies. Management becomes increasingly concerned about the economics of the technology.

Stage 4. As systems proliferate and databases continue to grow, systems integration becomes dominant. Management wants to leverage integrated systems & databases.

Stage 5. Management is concerned with the value of data. Functions are created to manage databases and to ensure they are used effectively.

Stage 6. May not occur (historical). Technology and management are integrated into an efficient entity.

Technology Assimilation - Growth Stages

Stage 1. Initiation
Stage 2. Contagion
Stage 3. Control
Stage 4. Integration
Stage 5. Data administration
Stage 6. Internal integration
  * ubiquity: everything is available through the web and is available EVERYWHERE
  * abstraction: focus on knowledge rather than data
Stage 7. External integration: across the supply chain
Stage 8. Maturity – I don’t think so

Trends in the types of systems

- Originally at an operational level – automation of manufacturing, TPS
- Then tactical e.g. MIS & DSS
- Then strategic – EIS
- Now knowledge management, OLAP/MDD, data mining, portals
Traditional managerial hierarchy

Strategic information systems (SIS)

- Change the
  - goals,
  - operations,
  - products
  - services or
  - environmental relationships
- To help organisations gain a competitive edge
- Where does the competition come from?

Porter’s five forces model

Some competitive strategies

- Becoming the cheapest or best provider
- Product differentiation
- Focus differentiation
- Developing strong linkages with
  - Suppliers
  - Customers
Becoming the cheapest or best provider

Use IT to:

- Automate production
  - To reduce cost or improve quality
- Better scheduling so less waste of time
  - Faster turnaround time on orders
- Improve administrative efficiency (cut costs)
- Develop new products (design tools)

Use IS/IT to:

- "Lock in" customers and suppliers
- rapidly change the basis of competition
- raise entry costs to new competitors
- integrated supply chain management
- Move supply chain management to plant floor
- JIC ——> JIT ——> stockless supply
- E-commerce opportunities

Changing nature of customers

- Can decide what, when, where and how to buy almost anything
- Have smart systems to help them buy
- So, they have an effect on prices
- want products and services in zero time
- Expectations are less predictable
- IS/IT are the only way to deal with this

Changing nature of business

- More competitive, more turbulent
- Globalised, larger competitors
- More complex business structures
- More integration between organisations
- More Web-based (and B2everyone)
- New electronic products

- Requires an “agile” approach – needs IS/IT
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