To maintain consistency. Lectures throughout TIM158 adapted or borrowed from Kevin Ross. Additional material added as needed.
Lecture 5

IT Impact on Organization
(Chapter 3)
What is an Organization?
Organizations are information systems. They are communication systems. And they are decision-making systems ... If one thinks about it, every aspect of organizational functioning depends on information processing of one form or another.

- Gareth Morgan
Types of Organizations

- The **machine view** which dominates modern management thinking and which is typical of bureaucracies.
- The **organismic view** which emphasizes growth, adaptation and environmental relations.
- Organizations as information processors that can learn (brain metaphor).
- Organizations as cultures based on values, norms, beliefs, rituals and so on.
- In political organizations **interests**, conflict and power issues predominate.
- Some organizations are psychic **prisons** in which people are trapped by their mindsets.
- Organizations can **adapt** and change, and
- Some organizations are **instruments** of domination with the emphasis on exploitation and imposing your will on others.
Organizational Controls

• Organizational controls
  • guide strategy,
  • compare actual with expected results, and
  • suggest corrective actions if necessary.

– Strategic controls
  • Subjective assessment of the fit between what
    the firm might do (opportunities) and what it
    can do (competitive advantage)

– Financial controls
  • Objective assessment of firm performance
Organizational Structure

Organizational structure specifies:

- The firm’s formal reporting relationships, procedures, controls, authority, and decision-making processes
- The work to be done and how to do it, given the firm’s strategy or strategies

It is critical to match organizational structure to the firm’s strategy!
IT Impact on Organizations

• IT impacts the business model through its effects on organizational capabilities
• ‘Organization’ as an effort to simultaneously manage information complexity and uncertainty
• Learn how to analyze IT for its potential to enable new capabilities e.g. facilitate new and improved organizational structures and processes
Hierarchy in Business

• Large firms have always run with some form of hierarchy
  – They have usually sought to minimize or eliminate it

  “We set out to shape a global enterprise that preserved the classic big company advantages while eliminating the big company drawbacks”

  (Jack Welch, CEO, General Electric)

Most companies fail to grow large without getting centralized control – it is very complex
The Organization Design Challenge

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Building Lean, Yet Agile Enterprises

- Hierarchy + Mainframe (Lean, Centralized)
- Extended Enterprise + On Demand (Lean, Agile, Networked)
- Entrepreneurial (Agile, Decentralized)
What is wrong with hierarchy?

...and what can go wrong without it?

Who is the most content employee in any organization?
Streamlining Operating and Management Processes

1. The business cycle is composed of two types of processes:
   - Operating Processes: The activities through which an organization designs, produces, markets, delivers, and supports its products or services.
   - Management Processes: The activities through which an organization manages the design, production, marketing, delivery, and support of its products or services.

2. Many companies attempt to streamline the business cycle by streamlining operating processes without a corresponding streamlining of management processes.

3. The key is to streamline, integrate, and “time synchronize” both operating and management processes.
Redefining Control Systems

Hierarchical Control

- Shortening the business cycle requires streamlining, integrating, and time synchronizing both operating & management processes

Management Processes

- Feedback
  - Real-time sense and respond
  - Cause and effect

- Input Control
  - Flexible contracts
  - Professional employees
  - Business intelligence

- Process Control
  - Information-Enabled/Learning Model of Control
  - Lean, yet agile, processes
  - Process integration

- Outputs Control
  - Broad set of performance measures
  - Early warning systems

Feedforward

- Predictive modeling
- Interactive scenarios

Operating Processes

- People
- Money
- Information
- Material
- Production
- Logistics
- Customers
- Sales/Service

Input Processes Output

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Redefining Authority Systems

The challenge is to bring these two perspectives together uniting people, processes, and information across an extended enterprise.

Flattening and elevating the information access curve is not sufficient. Collaborative structure, culture, authority, incentives, and roles must evolve along with the ability of individuals and teams at all levels to deal with problems of information overload and increase “information literacy.”
Some key ideas

• **Differentiation** how organizations are subdivided into specialized work units (nodes)
  – Horizontal (operating units)
  – Vertical (power/authority levels)

• **Integration** relationships and links between nodes required to unite specialized units and enable shared value
  – Task-based (groups work together on processes)
  – Information/expertise based (groups provide information or expertise)
  – Social relationships (affiliation and identity separate from work)
Sociology of relationships

• Stronger relationships needed in presence of
  – Increased complexity, uncertainty
  – Task interdependence eg. Shared services
  – Innovation
  – Large real-time information sharing
  – Diverse subcultures
  – Leader preferences
Framing decisions of differentiation

• What capabilities and resources are required to achieve goals?
• What activities must be performed to get there?
• How should these activities be grouped within specialized units?
Framing Decisions of Interdependence

- What key tasks must be managed between specialized groups?
- What organizational solutions are needed to coordinate and control interdependence?
- What configuration of organizational solutions should be used to ensure alignment and fit with the business environment and strategy?
Network Ownership

• Corporation = legally defined organization
• Alliance = between a small number of players
• Community/Ecosystem = players working together to achieve shared goals
Hybrid Governance

• Is market or hierarchy better?
  – Transaction cost theory says markets give greater efficiency and effectiveness unless cost and risk of using market mechanisms to coordinate and control interdependencies are higher than the cost and risk of hierarchy

• Cost and risk increases with
  – Duplication of costly assets that cannot be shared
  – Setting frequent disputes
  – Cost related to information access
  – Need to join others to increase market power

• Hierarchy used when high risk of market failure
  – Executives given authority to determine shared purpose and goals
  – Unified leadership gives focus

• Hierarchy optimizes vertical information processing
• Markets optimize horizontal information processing
IT enables governance models

- Information sharing, processing, creating
  - Shared purpose of multiple firms
  - Enable configurations and solutions between firms but do not preclude market-based transactions as well
  - Shared projects/values encourages increased activity over time
Business Opportunities from New Market

• Several new roles have emerged due to communication and market changes
• Each presents business opportunity with unique characteristics
Partnerships and Trust

• Process-based trust
  – Parties manage interdependencies over recurrent transactions

• Affiliation-based trust
  – Identity between groups/within group

• Institution-based trust
  – Tied to formal organizational and social structures
Three Main factors in Organizational Design

1. Size
2. Technology
3. Environment
Size

- This refers to capacity, number of personnel, outputs (customers, sales), resources (wealth).
- Blau's studies show that differentiation (# of levels, departments, job titles) increases with size, but at a decreasing rate. In contrast, the % of the organization that is involved in administrative overhead declines with size, leading to economies of scale.
- Increasing size is also related to increased structuring of organizations activities but decreased concentration of power.
- Managerial practices, such as flexibility in personnel assignments, extent of delegation of authority, and emphasis on results rather than procedures, are related to the size of the unit managed.
Environment

- Adaptation
- Natural Selection
- Dependence
- Institutionalization
Strategy and Structure

• Strategy and structure have a reciprocal relationship:
  – Structure follows the selection of the firm’s strategy, but...
  – ... once in place, structure can influence current strategic actions as well as choices about future strategies
Patterns of Strategy and Structure

• Firms grow in predictable patterns:
  – First by volume
  – Then by geography
  – Then integration (vertical, horizontal)
  – And finally through product/business diversification

• A firm’s growth patterns determine its structural form
Patterns of Strategy and Structure

- All organizations require some form of organizational structure to implement and manage their strategies
- Firms frequently alter their structure as they grow in size and complexity
- Three basic structure types:
  - Simple structure
  - Functional structure
  - Multidivisional structure (M-form)
Simple Structure

• Owner-manager
  – Makes all major decisions directly
  – Monitors all activities

• Staff
  – Serves as an extension of the manager’s supervisor authority

• Matched with focus strategies and business-level strategies
  – Commonly compete by offering a single product line in a single geographic market
Simple Structure: Growth Problems

• Growth creates:
  – Complexity
  – Managerial and structural challenges

• Owner-managers
  – Commonly lack organizational skills and experience
  – Become ineffective in managing the specialized and complex tasks involved with multiple organizational functions