Chapter 3
Organizational Strategy: Managerial Levers

Managing and Using Information Systems: A Strategic Approach

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Learning Objectives

- Understand how the use of information technology impacts an organization.
- Identify the type of organizational structure that tends to be most willing to embrace technological change and sophistication.
- List the advantages and disadvantages of the networked organizational structure.
- Discuss how IT has changed the way managers monitor and evaluate
- Define and explain the concept and importance of virtual organizations.
- Identify the challenges that are faced by virtual teams.

Real World Examples

- Cognizant Technology Solutions grew fast to become a $1.4 billion revenue company providing IT outsourcing services.

- This quick growth required that they reinvent their organization – move from a cost based to a relationship based structure.

- Managers had to interact with customers and with developers in different locations.

- A tremendous strain was put on managers because they had to work day and night.

- However, some of the units adopted a matrix structure that shared managerial responsibilities.

ORGANIZATIONAL STRATEGY

Key Characteristics

- Includes the organization's design, as well as the managerial choices that define, set up, coordinate, and control its work processes

- Optimized organizational design and management control systems support optimal business processes which reflect the firm's values and culture

- This chapter builds on the managerial levers model discussed in chapter 1.

- Figure 3.1 summarizes complementary design variables from the managerial levers framework.

Variable	Description
Organizational variables	
Decision rights	Authority to initiate, approve, implement, and control various types of decisions necessary to plan and run the business.
Business processes	The set of ordered tasks needed to complete key objectives of the business.
Formal reporting relationships	The structure set up to ensure coordination among all units within the organization.
Informal networks	Mechanism, such as ad hoc groups, which work to coordinate and transfer information outside the formal reporting relationships.
Control variables	
Data	The information collected, stored, and used by the organization.
Planning	The processes by which future direction is established, communicated, and implemented.
Performance measurement and evaluation	The set of measures that are used to assess success in the execution of plans and the processes by which such measures are used to improve the quality of work.
Incentives	The monetary and non-monetary devices used to motivate behavior within an organization.
Cultural variables	
Values	The set of implicit and explicit beliefs that underlie decisions made and actions taken.

Figure 3.1 Organizational design variables.

INFORMATION TECHNOLOGY AND ORGANIZATIONAL DESIGN

Decision Rights

- Who in the organization has the responsibility to initiate, supply information for, approve, implement, and control various types of decisions.

- Ideally the person with the most information and in the best position should have these rights.

- Organizational design is all about making sure that decision rights are properly allocated.

- For Zara, decision rights moved to the store managers, providing for quicker responses to their local customer base.

# Formal Reporting Relationships and Organization Structures

- Organization structure is the way of designing an organization so that decision rights are correctly allocated.

- The structure of reporting relationships typically reflects the flow of communication and decision making throughout the organization.

- Traditional organizations are hierarchical, flat or matrix in design (Fig. 3.2).

- In hierarchical organizations, middle managers tell subordinates what to do and tell superiors the outcomes. IS supports this hierarchy.

- In flat structured organizations, work is more flexible and employees do whatever is needed. IS allows offloading extra work and supports intra-firm communications.

- In matrix organizations, work is organized into small work groups and integrated regionally and nationally/globally.
  - IS reduces operating complexities and expenses by allowing information to be easily shared among different managerial functions.

Hierarchical Organization Structure
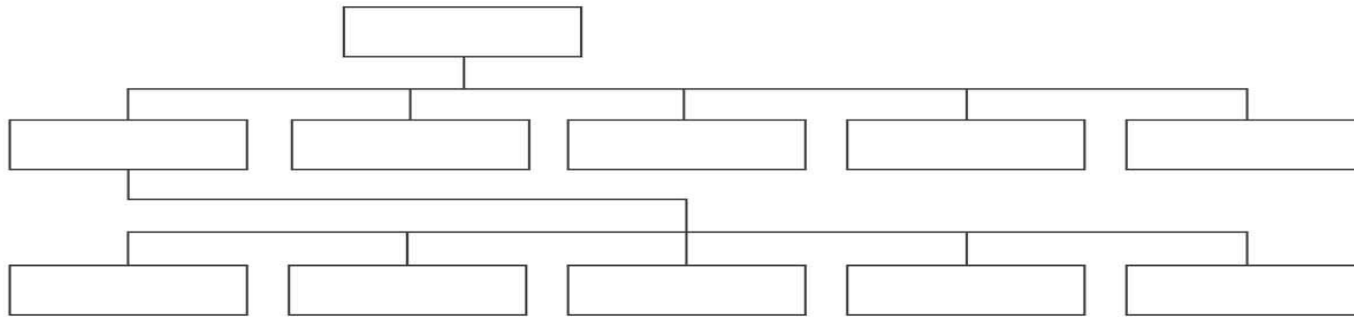
Flat Organization Structure
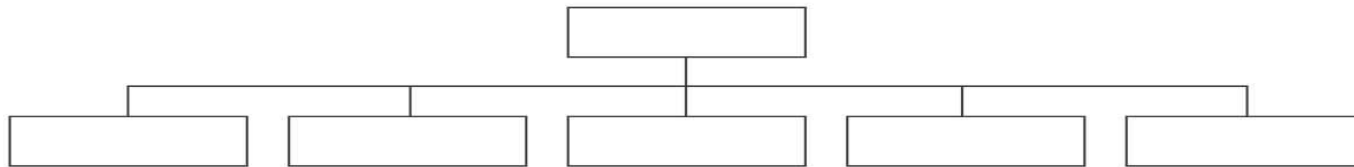
Matrix Organization Structure

Industry \ Regions	Region 1	Region 2	Region 3
Industry 1	Position for industry 1 in region 1	Position for industry 1 in region 2	Position for industry 1 in region 3
Industry 2	Position for industry 2 in region 1	Position for industry 2 in region 2	Position for industry 2 in region 3
Industry 3	Position for industry 3 in region 1	Position for industry 3 in region 2	Position for industry 3 in region 3

Figure 3.2 Hierarchical, flat, and matrix organization structures.

Hierarchical Organizational Structure

- Based on the concepts of division of labor, specialization, and unity of command.
- Functional and divisional organizational forms are based upon this structure.
- Key decisions are made at the top and filter down through the organization
- Middle managers do the primary information processing and communication function
- IS is typically used to store and communicate information along the lines of the hierarchy and to support the info management function of the managers

Flat Organizational Structure

- Decision-making is centralized

- As everyone does whatever needs to be done, they can respond quickly to dynamic, uncertain environments

- However, this organizational structure often becomes less flexible as the org. grows

- Routine IS work is often off-loaded but, as a hierarchy develops, becomes the 'glue' tying parts of the organization that would not otherwise communicate

Matrix Organizational Structure

- This typically assigns workers with two or more supervisors in an effort to make sure multiple dimensions of the business are integrated.

- Each supervisor directs a different aspect of the employee's work.

- Matrix organizations often fail to enable managers to achieve their business strategies.

- Employees may be frustrated and confused since they are often subjected to dual authority.

Networked Organizational Structure

- Made possible by new information systems.
- They feel flat and hierarchical at the same time.
- Decision rights are decentralized in this structure.
- Defined by their ability to promote creativity and flexibility while maintaining operational process control, which is achieved by substituting hierarchical controls with controls based on IS
- Extensive use of communication technologies and networks also makes it easier to coordinate across functional boundaries

T-Form

- Form of the networked organizational structure.
- "T" stands for "technology-based" or "technology-oriented."
- IT is combined with traditional organizational components to form new types of components such as:
  - electronic linking
  - production automation
  - electronic workflows
  - electronic customer/supplier relationships
  - self-service Internet portals.

	Hierarchical	**Flat**	**Matrix**	**Networked**
Description	Bureaucratic w/ defined levels of management	Decision-making pushed down to lowest level	Workers assigned to 2 or more supervisors	Formal/informal communication networks that connect all
Characteristics	Division of labor specialization, unity of command	Informal roles, planning and control; often sm.,young orgs.	Dual reporting based on function/purpose	Known for flexibility and adaptability
Type of Environment Best Supported	Stable Certain	Unstable Uncertain	Unstable Uncertain	Unstable Uncertain
Basis of Structuring	Primary function	Primary function	Functions and purpose	Networks
Power Structure	Centralized	Centralized	Distributed	Distributed
Key Tech. Supporting this	Mainframe, centralized data and processing	Personal computers	Networks	Intranets and Internet

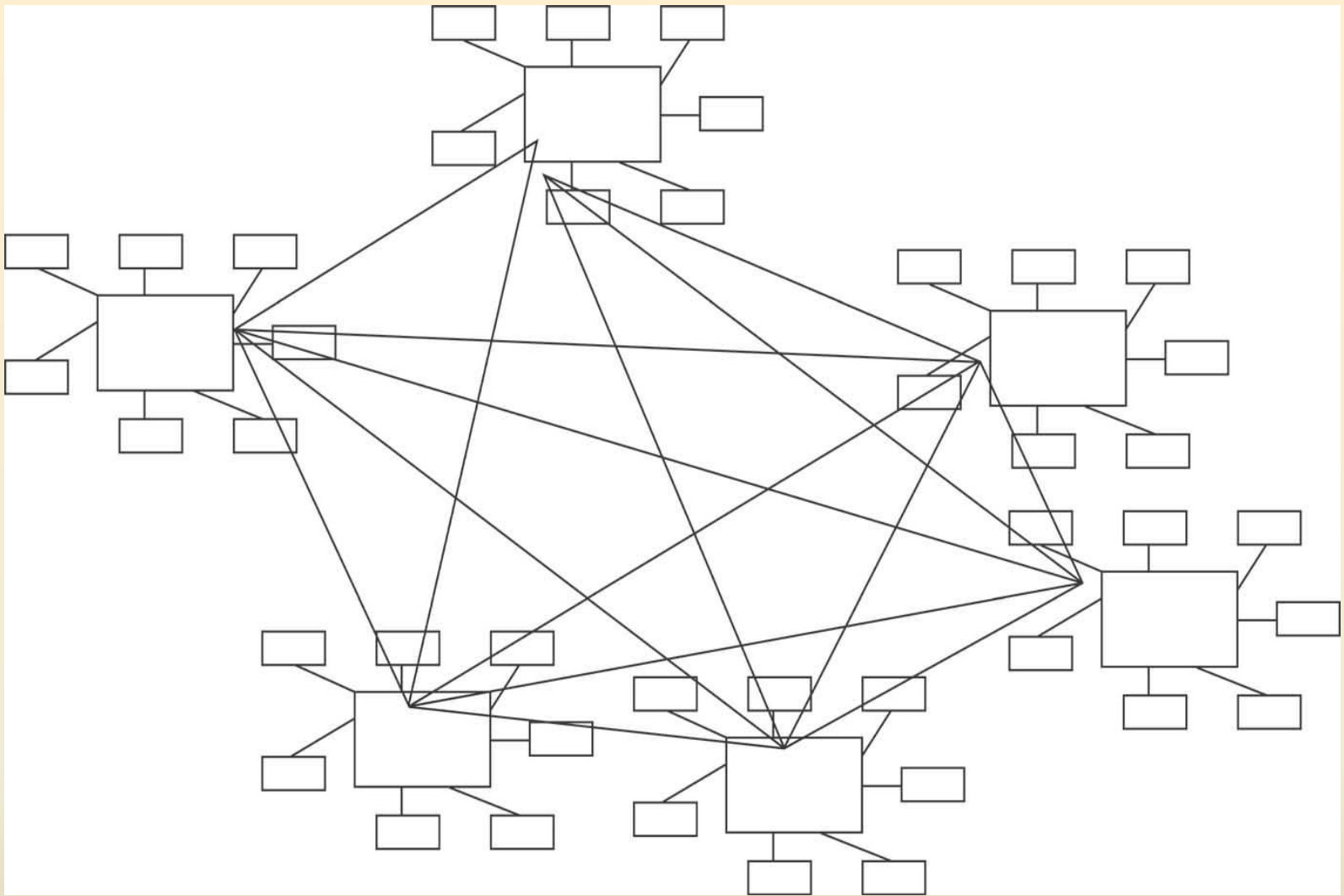Figure 3.3 Comparison of Organizational Structures

Figure 3.4 The networked organization.

Informal Networks

- Informal relationships exist and can play an important role in the functioning of an organization.
- Some informal relationships are designed by management:
  - Working on a project.
  - Job rotation program, etc.
- Unintended networks are formed throughout an organization by:
  - Proximity
  - Shared interest
  - Family ties, etc.
- Some even cross organizational boundaries.

INFORMATION TECHNOLOGY AND MANAGEMENT CONTROL SYSTEMS

Management Control

- IT profoundly affects the way managers control their organizations.

- People and processes are monitored in ways that were not possible only a decade ago.

- Managers need to control work done at the process level.

- The organizational structure will determine the level of control that a manager must exercise.

- IS plays three important roles in management control processes:
  - Data collection, Evaluation, and Communication.

Planning and Information Technology

- Information technology can play a role in planning in three ways:
    - IS can provide the necessary data to develop the strategic plan
    - Some IS actually automate the planning process
    - IS can lie at the heart of a strategic initiative and can be used to gain strategic advantage

Data Collection and IT

- Monitoring work can take on a completely new meaning with the use of information technologies.
- IS make it possible to collect such data as:
  - number of keystrokes
  - precise time spent on a task
  - exactly who was contacted
  - specific data that passed through the process
- Organizational design challenge in data collection is to:
  - embed monitoring tasks within everyday work
  - reduce the negative impacts to workers being monitored.

Software Monitoring Products

- Many are available to monitor employees
- They are installed to record specific data about what employees are doing.
- Monitoring can backfire and cause stress in employees.
- Monitoring products must be carefully managed and productively used to reward employees, and not just punish them.
- Productivity and morale may fall

Performance Measurement, Evaluation and IT

- IS make it possible to evaluate data against reams of standard or historical data.

- Models can be built and simulations designed.

- Managers can more easily understand work progress and performance.

- However, analysis paralysis (too much data/information) can cause managers to become overwhelmed.

- How the information is used is important to performance measurement.

- How feedback is communicated in the organization plays a role in affecting behavior.

- Many companies do a "360-degree" feedback, into which the individual's supervisors, subordinates, and coworkers all provide input.

- Key is making sure that the information is handled discreetly and appropriately.

Incentives and Rewards and IT

- Ways organizations encourage good performance.
- Done properly, can make employees feel good without paying them more money.
- Organizations use their Web sites to recognize high performers.
- Others reward them with new technology.
- IS makes it easy to design complex reward systems (shared or team based).
- Managers must consider both the metrics and qualitative data in assigning compensation and rewards.

INFORMATION TECHNOLOGY AND CULTURE

CULTURE

- Culture is the third managerial lever.

- Plays an increasingly important role in IS development and use.

- It is defined as a shared "set of values and beliefs about what is desirable and undesirable in a community of people".

- Culture is not static but always changing.

- Different levels of culture.

CULTURE

- National culture differences may affect system development and use.

- Hofstede is one of the best known researchers in the values across national cultures.

- The GLOBE (Global Leadership and organizational Behavior Effectiveness) research program was a team of 150 researchers who have collected data on cultural vales and practices and leaderships attributes from over 18,000 manages in 62 countries.

- The GLOBE dimensions and their relationship to Hofstede's dimensions are found in Figure 3.5.

GLOBE DIMENSIONS	DESCRIPTION	RELATIONSHIP TO HOFSTEDE DIMENSION
UNCERTAINTY AVOIDANCE	EXTENT TO WHICH MEMBERS OF AN ORGANIZATION OR SOCIETY STRIVE TO AVOID UNCERTAINTY BY RELIANCE ON SOCIAL NORMS, RITUALS, AND BUREAUCRATIC PRACTICES TO ALLEVIATE THE UNPREDICTABILITY OF FUTURE EVENTS.	SAME AS UNCERTAINTY
POWER DISTANCE	DEGREE TO WHICH MEMBERS OF AN ORGANIZATION OR SOCIETY EXPECT AND AGREE THAT POWER SHOULD BE EQUALLY SHARED.	SAME AS POWER DISTANCE
COLLECTIVISM I: SOCIETAL COLLECTIVSIM	DEGREE TO WHICH ORGANIZATIONAL AND SOCIETAL INSTITUTIONAL PRACTICES ENCOURAGE AND REWARD COLLECTIVE DISTRIBUTION OF RESOURCES AND COLLECTIVE ACTION.	SAMES AS INDIVIDUALISM/ COLLECTIVISM
COLLECTIVISM II: IN-GROUP COLLECTIVISM	DEGREE TO WHICH INDIVIDUALS EXPRESS PRIDE, LOYALTY AND COHESIVENESS IN THEIR ORGANIZATIONS OR FAMILIES	TYPE OF COLLECTIVISM FOCUSED ON SMALL IN-GROUPS
GENERAL EGALITARIANSIM	EXTENT TO WHICH AN ORGANIZATION OR SOCIETY MINIMIZES GENDER ROLE DIFFERENCES AND GENDER DISCRIMINATION	MODIFIED VERSION OF MASCULINITY/FEMINITY
ASSERTIVENESS	DEGREE TO WHICH INDIVIDUALS IN ORGANIZATIONS OR SOCIETIES ARE ASSERTIVE, CONFRONTATIONAL AND AGGRESSIVE IN SOCIAL RELATIONSHIPS	MODIFIED VERSION OF MASCULINITY/FEMINITY
FUTURE ORIENTATION	DEGREE TO WHICH INDIVIDUALS IN ORGANIZATIONS OR SOCIEITES ENGAGE IN FUTURE-ORIENTED BEHAVIORS SUCH AS PLANNING, INVESTING IN THE FUTURE, AND DELAYING GRATIFICATION	SIMILAR TO CONFUCIAN WORK DYNAMISM BY HOFSTEDE AND BOND (1988)
PERFORMANCE ORIENTATION	EXTENT TO WHICH AN ORGANIZATION OR SOCIETY ENCOURAGES AND REWARDS GROUP MEMBERS FOR PERFORMANCE IMPROVEMENT AND EXCELLENCE	
HUMANE ORIENTATION	DEGREE TO WHICH INDIVIDUALS IN ORGANIZATIONS OR SOCIETIES ENCOURAGE AND REWARD INDIVIDUALS FOR BEING FAIR, ALTRUISTC, FRIENDLY, GENEROUS, CARING AND KIND TO OTHERS.	SIMILAR TO KIND HEAREDNESS BY HOFSTEDE AND BOND (1988)

Figure 3.5 – National Cultural Dimensions

CULTURE

- Cultural differences have not totally disappeared.
- Convergence is a challenge for an organization that employs people from a variety of countries and cultures.
- Having an understanding and appreciation for cultural values, practices and subtleties can help in smoothing the challenges.
- Awareness of the Hofstede or GLOBE dimensions may help improve communications and reduce conflict.
- Effective communication means listening, framing the message in a way that is understandable to the receiver and responding to feedback.

FOOD FOR THOUGHT: IMMEDIATELY RESPONSIVE ORGANIZATIONS

Immediate Responsive Organizations

To accomplish the goal of instant "customization", an organization must master five disciplines:

1. *Instant value alignment* – ready to provide exactly what the customer wants

2. *Instant learning* –building learning directly into the company's tasks and processes

3. *Instant involvement* – using IT to ensure that everyone is ready to deliver products, services, etc

4. *Instant adaptation* – creating the culture to support this

5. *Instant execution* – During It to cut cycle times to appear instant to the customer

SUMMARY

Summary

- Incorporating IS as a fundamental organizational design component is critical to company survival.
- Organization structures can facilitate or inhibit information flows.
- Organizational design should take into account decision rights, organization structure and informal networks.
- Flat, hierarchical, and matrix structured organizations are being enhanced by IT resulting in networked organizations.
- IT affects managerial control mechanisms.
- Management control at the individual level is concerned with monitoring, evaluating, providing feedback, compensating, and rewarding.
- Organizational and national culture should be taken into account when designing and using IS.