

IT

(Information Technology)

Khatam Institute of higher Education

Session # 4

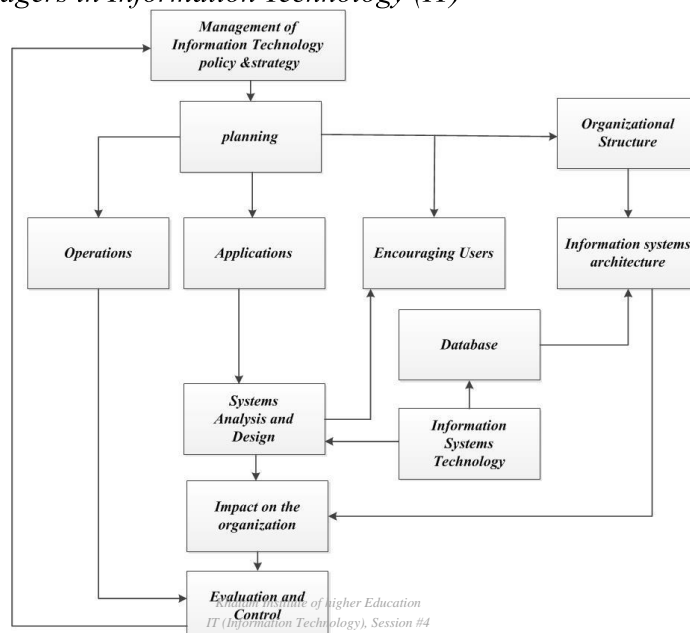


Course Description (Continued..)

- *Contents:*
 - *Foundation of Information Technology (IT)* (1 session)
 - *A Look Toward the Future of Information Technology* (2 sessions)
 - *Information Management and IT Architecture* (2 sessions)
 - *Networks, Collaboration, and Sustainability* (2 sessions)
 - *E-Business & E-Commerce Models and Strategies* (4 sessions)
 - *Functional Area and Compliance Systems* (4 sessions)
 - *Enterprise Systems and Applications* (6 sessions)
 - *Business Process and Project Management* (5 sessions)
 - *Logistics and Information Technology* (8 sessions)

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The role of managers in Information Technology (IT)



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The role of managers in Information Technology (IT)

- Using technology to transform the organization
 - We are living in revolutionary times, a revolution brought on by dramatic advances in information technology.
 - If the steam engine, a new form of power, and mechanization created an Industrial Revolution over 150 years ago, **computers** and **communications equipment** have produced a Technology Revolution in the last half of the twentieth century.

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Organizational Issues

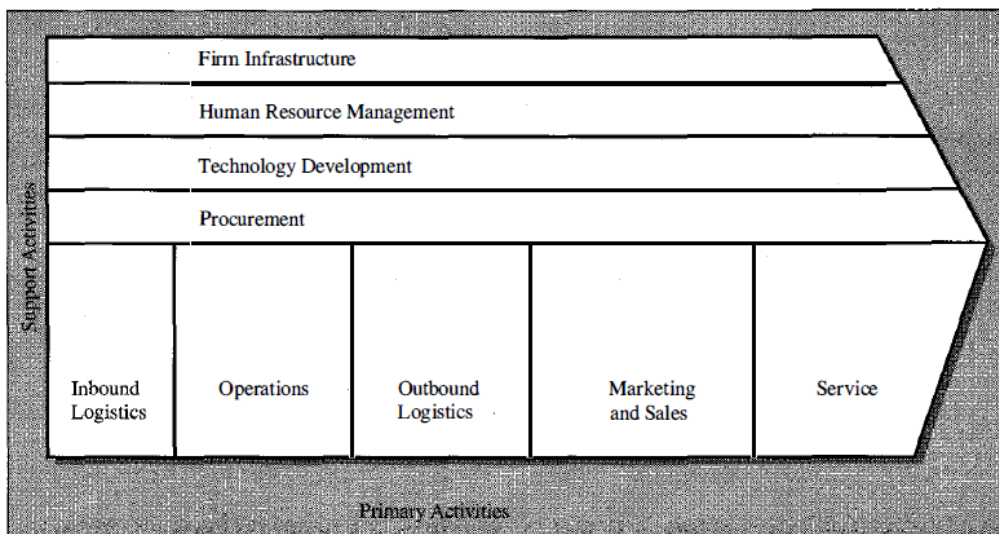
- *Strategic issues of Information Technology*
 - *Information Technology and corporate strategy*
 - *A key task of top management is formulating corporate strategy.*
 - *What opportunities for new directions are available?*
 - *What are competitors doing?*
 - *A firm can continue its present course, maintaining momentum where it is doing well.*
 - *The corporation can dramatically change its strategy by deciding among competing alternatives for new ventures.*

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Organizational Issues

- *Strategic issues of Information Technology*
 - *Michael Porter at Harvard has popularized the concept of the "value chain," the activities in an organization that add value to its products or services*



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Organizational Issues

- *Strategic issues of Information Technology*
 - *Information Technology and corporate strategy*

- *Low-cost producer.*

Here the firm tries to have the lowest costs in the industry so that it can compete on price.

- *Differentiation.*

The firm tries to separate its product image from that of the competition in such a way that the customer wants its product.

- *Market niche strategy.*

A number of firms try to find a market niche and exploit it.

Organizational Issues

- *Strategic issues of Information Technology*
 - *Information Technology and corporate strategy*

- *Customer Driven*

- *Reducing Cycle Times*

- *Global Competition*

- *Right-Sizing*

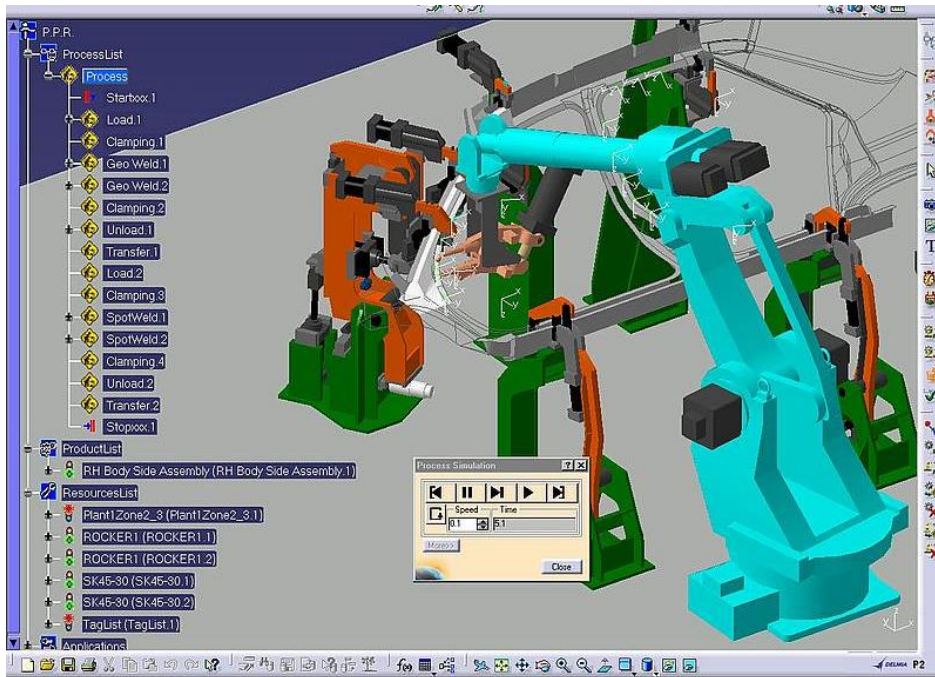
- *Quality*

Organizational Issues

- *Strategic issues of Information Technology*
 - *Capitalizing on Information Technology*
 - *Look for ways to incorporate technology in a product or service*
 - *Seek ways to use technology to connect with other firms.*
 - *Look for ways to use technology to make dramatic changes in the way you structure the organization.*
 - *Integrate technology with planning.*

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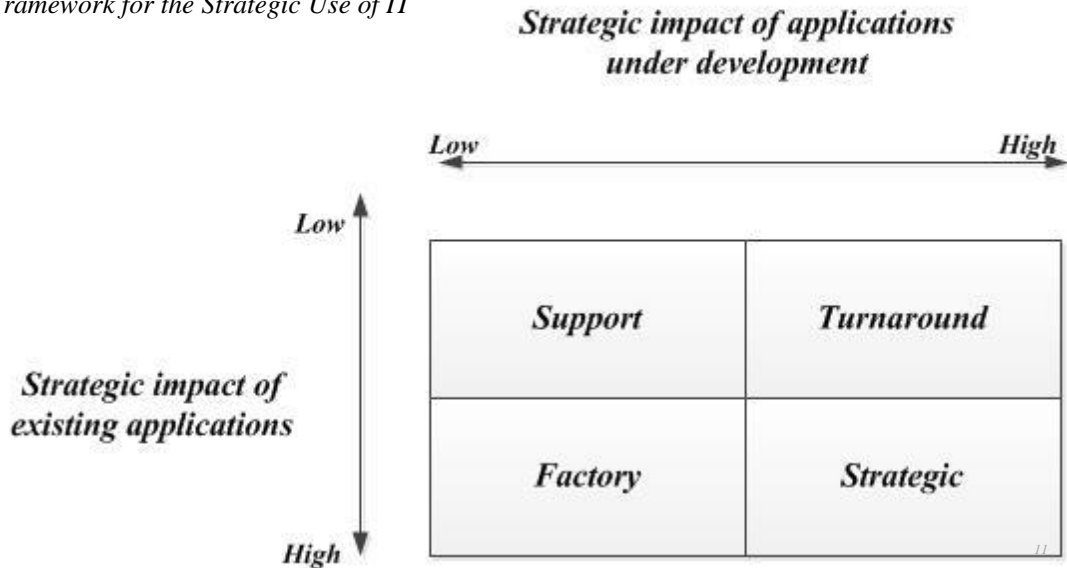
Computer-aided design
the car to the plant
manufactured.

Boeing's design system was the
directly from design
In addition, Boeing
design system to
he design process.
Planes were within
alignment compared
as designed using

Technology is helping
a time reduction and

Organizational Issues

- *Strategic issues of Information Technology*
 - *A Framework for the Strategic Use of IT*

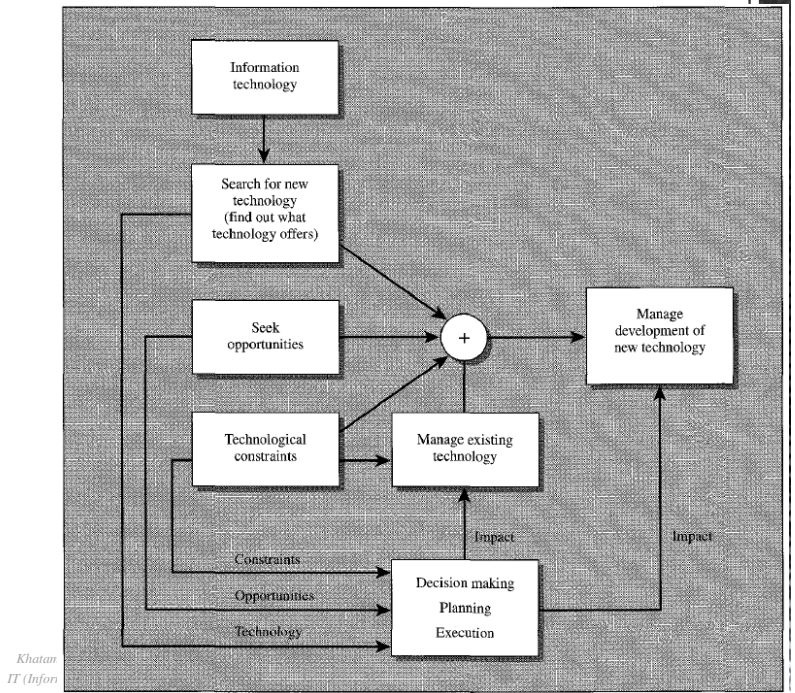


Organizational Issues

- *Strategic issues of Information Technology*
 - *Integrating technology with the business environment*
 - *One of the most significant management challenges during the coming decade will be to integrate business and technology.*
 - *Successful managers must be able to integrate their knowledge of Information Technology and their business knowledge in making decisions.*
 - *The manager should be aware of the opportunities provided by the technology and the constraints that already exist for the firm in developing new technologies.*
 - *The manager should also recognize that as decisions are made, the alternatives chosen will have an impact on technology and its development within the firm*

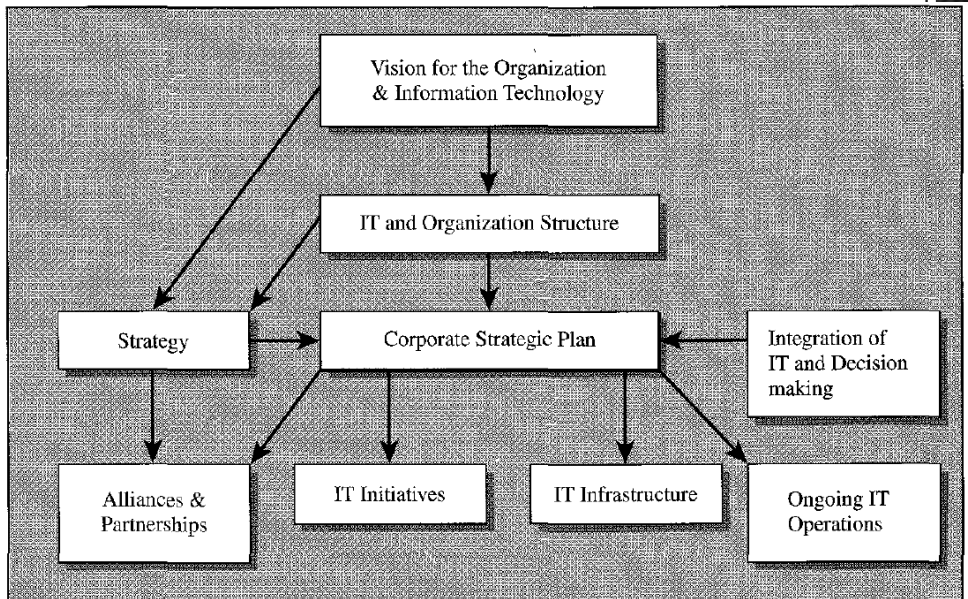
Organizational Issues

- *Strategic issues of Information Technology*
 - *Integrating technology with the business environment*



Organizational Issues

- *Strategic issues of Information Technology*
 - *Managing Information Technology*



Organizational Issues

- *Strategic issues of Information Technology*
 - *Managing Information Technology:: A Vision of the Organization and Technology*
 - *Visions are rare and difficult to create; leaders are frequently criticized for lack of vision.*
 - *A fundamental responsibility for management is to develop a vision for the business and for the role of information*
 - *The vision should describe the mission of the organization and identify the products and services it produces.*
 - *It should identify the markets in which the firm will compete and its strategy for competition.*

Organizational Issues

- *Strategic issues of Information Technology*
 - *Managing Information Technology:: Integrating Technology and Decision Making*
 - *A significant responsibility of management is to integrate technology with all business decisions.*
 - *Integration means that the manager is aware of how new technology can create opportunities.*
 - *A decision to enter a new line of business has a direct effect on existing information-processing systems.*

Organizational Issues

- *Strategic issues of Information Technology*
 - *Managing Information Technology:: A Corporate Plan for Strategy*
 - *A corporate strategic plan comes from the firm's vision for its future activities.*
 - *Given the contents of the corporate strategic plan, it is possible for managers in the IT function to develop a more detailed IT plan to support the corporation.*

Organizational Issues

- *Strategic issues of Information Technology*
 - *Managing Information Technology:: Ongoing Management of IT*
 - *Visions and strategy are long term in nature; the firm still faces the day-to-day task of managing information technology.*
 - *This work consists of two different kinds of tasks :*
 - *Developing new applications and*
 - *Operating the existing stock of applications.*

The role of managers in Information Technology (IT)

- *HW#04*
 - *Strategic Advantage*
 - *Developing systems for strategic advantage (or calling them strategic) has become very fashionable. As the examples in this chapter suggest, it is unlikely that what is strategic today started out that way. Companies developed systems for one set of reasons. Later they saw extensions that turned the systems into strategic or competitive applications.*
 - *When an organization exists to make a profit and functions in an industry with competitors, it is relatively easy to look at a system and determine that it is strategic.*
 - *What happens in the case of a different organization, such as a university?*
 - *Can you identify the "competitors" of your university? How can information technology be used to make your institution more competitive?*
- *The Home work should be sent to Fvalilai@Sharif.edu till Tuesday, 13th of Aban (Nov, 4th ,2014)*
- *Email subject: "HW04:studentnumber"*

Organizational Issues

- *International business and Information Technology*
 - *Businesses are turning themselves into global concerns.*
 - *Information Technology is an important tool in making this transformation and in designing the international organization.*
- *Globalization has been one of the major trends in business in the last decade.*
 - *It is estimated that 579 global corporations account for about 25 percent of the world's production.*

Organizational Issues

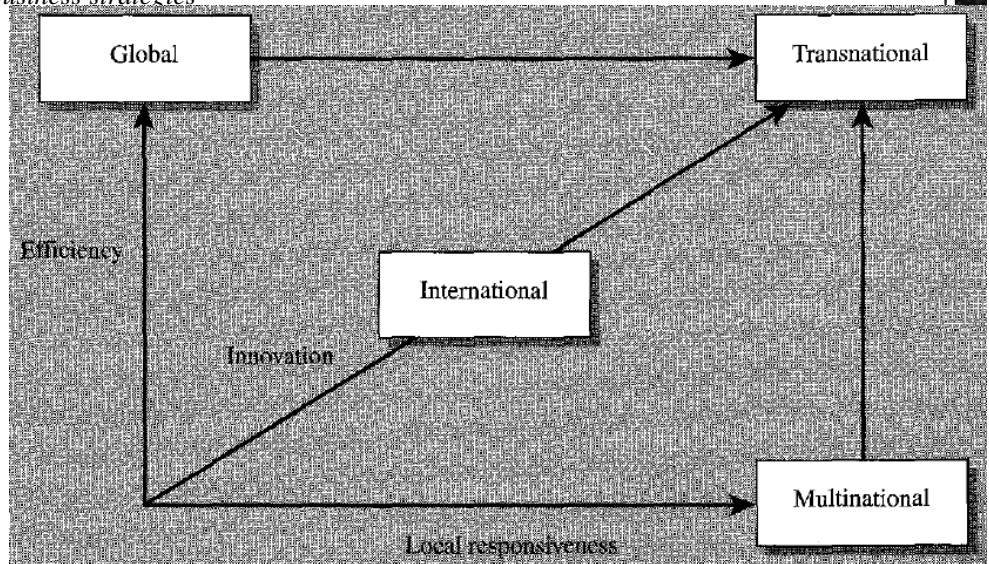
- *International business and Information Technology*
 - *The impact of globalization on business*
 - *Rationalized manufacturing*
 - *Worldwide purchasing*
 - *Integrated customer service*
 - *Global economies of scale*
 - *Global products*
 - *Worldwide roll-out of products and services*
 - *Subsidizing markets*
 - *Managing risk across currencies*
 - *The growing irrelevance of national borders*

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Organizational Issues

- *International business and Information Technology*
 - *International business strategies*



Organizational Issues

- *International business and Information Technology*
 - *Key issues in an international environment*
 - *An international corporation needs Information to coordinate and control its diverse businesses.*
 - *Traditional uses of IT for reporting and control.*
 - *Moreover, Information Technology offers the international firm many more active tools to help manage the business.*
 - *Coordination is a major problem for the global firm.*
 - *Information Technology plays a crucial part in the design and operation of international firms*

Organizational Issues

- *International business and Information Technology*
 - *Key issues in an international environment*
 - *The ultimate objective for the global firm is to process data anyplace in the world and share information without having to worry about the type of platform used for processing*
 - *Managing local development when the foreign unit does not coordinate with headquarters.*
 - *How does the firm develop a set of common systems shared across different countries to take advantage of economies of scale?*
 - *The third development problem is that when designing applications, there are real and perceived unique features in each country. One must recognize what features are required for a system to work in a country and what features are there as an exercise in local independence.*

Organizational Issues

- *International business and Information Technology*
 - *Managing Information Technology internationally*
 - *Concentrate on inter-organizational linkages*
 - *Establish global systems development skills*
 - *Build an infrastructure*
 - *Take advantage of liberalized telecommunications*
 - *Strive for uniform data*
 - *Develop guidelines for shared versus local systems*

The role of managers in Information Technology (IT)

- *HW#05*
 - *International business and Information Technology*
 - *Study your reference book through pages 141 to 144. the book talks about the case study of Verifone company.*
 - *First describe your opinion about the Verifone international business and the usage of Information Technology*
 - *Second, considering the different aspect of international issues of Information Technology express your opinion for a better model of Information Technology application.*
- *The Home work should be sent to Fvalilai@sharif.edu till Sunday, 18th of Aban (Nov, 9th ,2014)*
- *Email subject: “HW05:studentnumber”*

Organizational Issues

- *The impact of Information Technology on the organization*
 - *Building a T-form organization (Case study)*
 - *VeriFone is a company that manufactures devices to verify credit card payments and is active in offering electronic commerce solutions on the Internet.*
 - *The firm views itself as a global corporation.*
 - *The chairman compares it to a "blueberry pancake where all the blueberries (locations) are equal".*
 - *Verifone uses technology extensively for communications and coordination in the firm*

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Organizational Issues

- *Transnational virtual firms and IT*

The Global Reach of the Computer

Less-developed countries, for years on the outside of the computer revolution because of cost and import restrictions, have displayed a ravenous appetite for personal computers. In Brazil where PCs were almost nonexistent a few years ago, computers have become a major part of the culture. It is estimated that tens of thousands of Brazilians are banking at home. PCs can be found in Poland, Indonesia, Uganda, and Bangladesh.

Many of these computers are being used in business, narrowing the competitiveness gap between firms in the less-developed countries and developed nations. Because these organizations do not have old technology, they can start with highly cost-effective PCs and a client-server architecture (see Chapters 8 and 13). A bank in Prague with no computer systems moved from paper to a client-server network on Dell computers, allowing it to connect for the first time with worldwide monetary trading networks. Chile's export-promotion agency connected 160 PCs around the world to a group of Compaq servers in Santiago so that prospective buyers could review Chile's export products.

In Latin America, Chile is one of the leaders in applying PC technology. Many small stores use a PC for tracking inventory and

preparing invoices. Larger companies like the winemaker Concha y Toro and the dairy Loncoleche equip their sales force with hand-held terminals or notebook computers. Compania de Petroleos de Chile uses PC-based systems to keep track of diesel fuel sales and monitor the growth of trees. The Chilean government is spending \$3 million to put computers in schools. Even still Chile has 3.3 PCs per 100 people compared to 30 per 100 people in the U.S.

Brazil has relaxed import tariffs on computers, and sales have soared. A grocery wholesaler in central Brazil was never able to afford a computer, especially given interest rates of 12 to 14 percent *per month* on capital. Its major competitor used a mainframe computer to route trucks. However, the wholesaler sent its trucks on the same routes each day whether there were orders or not. With a \$3000 PC and a package from a Maryland firm, the wholesaler has been able to deliver 30 percent more goods with a 35 percent smaller fleet of trucks. It has reduced warehouse employment from 95 to 80 people. The company also installed bar code scanners to track inventory and a central server to track orders. For the first time, it is ahead of its competitors in applying technology.

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Organizational Issues

- *International business and Information Technology*
 - *Business models and IT management*
 - *Independent Operations*
 - *Headquarters Driven*
 - *Intellectual Synergy*
 - *Integrated Global IT*

TABLE 6-3

BUSINESS AND IT MANAGEMENT APPROACHES

Business model	IT management approach
Multinational	Independent operations
Global	Headquarters driven
International	Intellectual synergy
Transnational	Integrated global IT