Information System Management

Part 2

Course Code: 540221

Marks:80

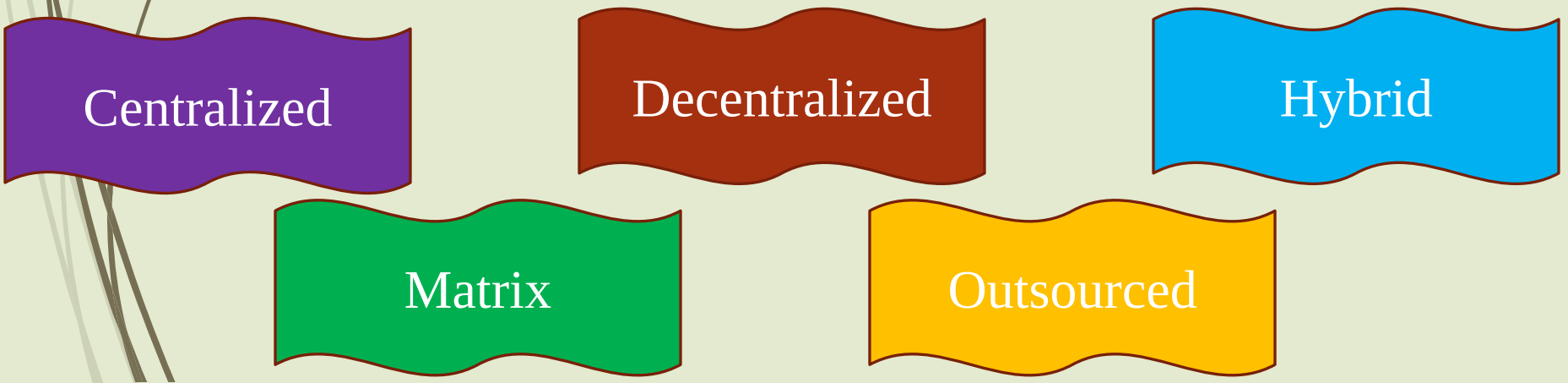
Credit: 3

Class Hours: 45

IS Organizational Model(1/4)

- **Defining What IS Organizational Model is:**

An information system organizational model is a **framework** that defines the **structure**, **roles** and **responsibilities** of individuals and departments within an organization that manages information systems. There are several types of organizational models that companies can adopt, depending on their size, industry, and goals.



IS Organizational Model(2/4)

Some common information system organizational models:

1. Centralized:

In a centralized model, all information technology (IT) functions are managed by a single department within the organization. This model is suitable for smaller organizations with limited IT needs and resources.

2. Decentralized

In a decentralized model, each department within the organization manages its own IT functions. This model is suitable for larger organizations with diverse IT needs and resources.

IS Organizational Model(3/4)

3. Hybrid

A hybrid model combines elements of both centralized and decentralized models. In this model, some IT functions are managed centrally while others are managed by individual departments.

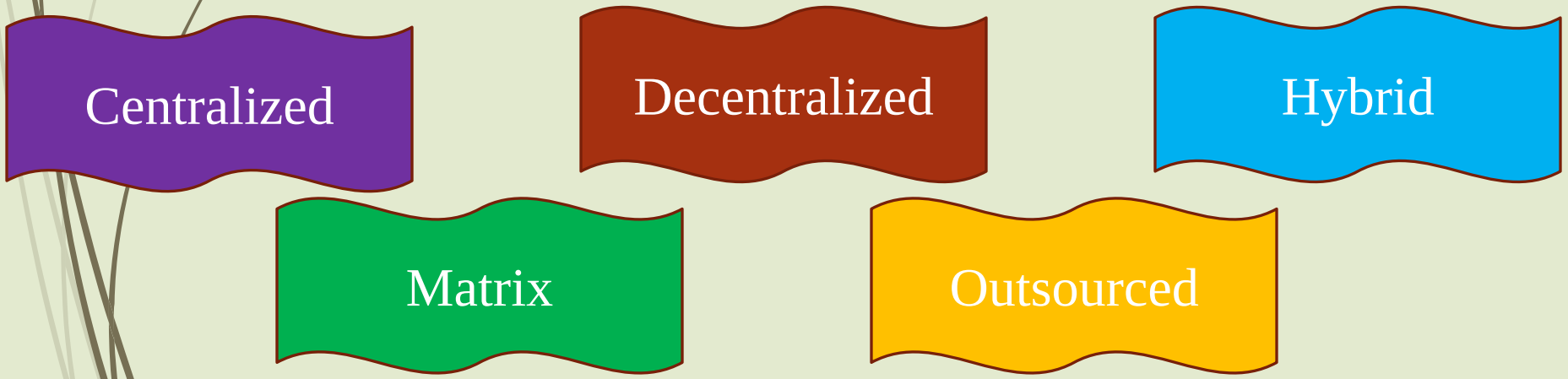
4. Matrix

In a matrix model, IT functions are managed both by a centralized IT department and by individual departments. This model is suitable for organizations with complex IT needs that require coordination between different departments.

IS Organizational Model(4/4)

5. Outsourced

In an outsourced model, IT functions are outsourced to a third-party provider. This model is suitable for organizations that want to reduce their IT costs and focus on their core business activities.



IS Management's Leadership Role(1/5)

Some of the IS Management's Leadership Roles are-

- **Vision and Strategy**

IS Managers must have a clear vision and strategy for how technology can support the business goals and objectives. They need to be able to align the technology roadmap with the overall business strategy, and ensure that the technology investments are well planned and executed.

IS Management's Leadership Role(2/5)

- **Team Management**

IS Managers need to lead and manage the teams responsible for developing and maintaining the technology systems. This involves hiring and training staff, setting performance goals, and creating a positive work environment that fosters collaboration and innovation.

IS Management's Leadership Role(3/5)

- **Communication and Collaboration**

IS Managers must have strong communication skills to effectively communicate technical concepts to non-technical stakeholders. They must also be able to collaborate with other business leaders to ensure that technology systems are aligned with business goals.

IS Management's Leadership Role(4/5)

- **Risk Management**

IS Managers must have a deep understanding of the risks associated with technology systems and ensure that appropriate measures are taken to mitigate those risks. This involves establishing security protocols, disaster recovery plans, and ensuring compliance with legal and regulatory requirements.

IS Management's Leadership Role(5/5)

- **Innovation**

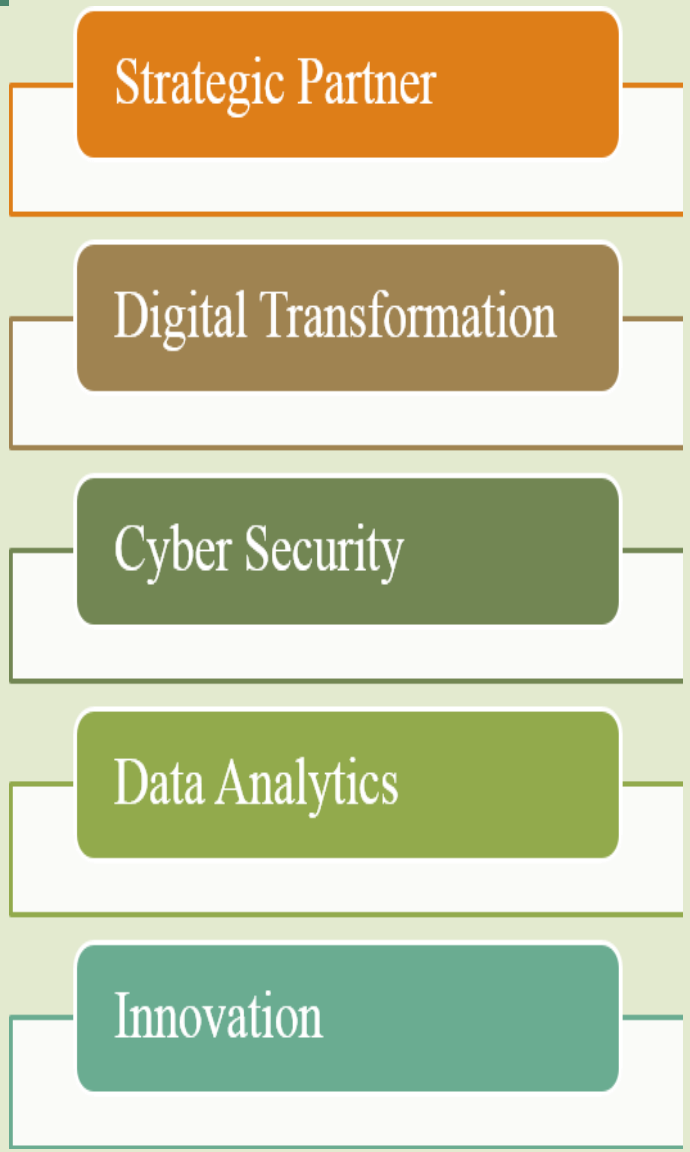
IS Managers must be innovative and stay up-to-date with emerging technologies and industry trends. They need to be able to identify opportunities for innovation and leverage technology to create new business models, products, and services.

New Role Of IT(1/3)

- Here are some of the new roles that IT is playing in organizations:

Strategic Partner

IT has become a strategic partner to business leaders in helping them achieve their goals. IT leaders collaborate with business leaders to identify opportunities to leverage technology to drive innovation, improve productivity, and enhance customer experience.



New Role Of IT(2/3)

Digital Transformation

IT is playing a key role in digital transformation initiatives by leveraging emerging technologies such as cloud computing, artificial intelligence, machine learning, and the Internet of Things (IoT) to improve business processes, create new products and services, and enhance customer experience.

Cyber security

With the increasing frequency and sophistication of cyber threats, IT has taken on a critical role in ensuring the security and privacy of corporate data and systems. IT leaders work closely with security experts to establish security protocols and implement measures to mitigate cyber risks.

New Role Of IT(3/3)

Data Analytics

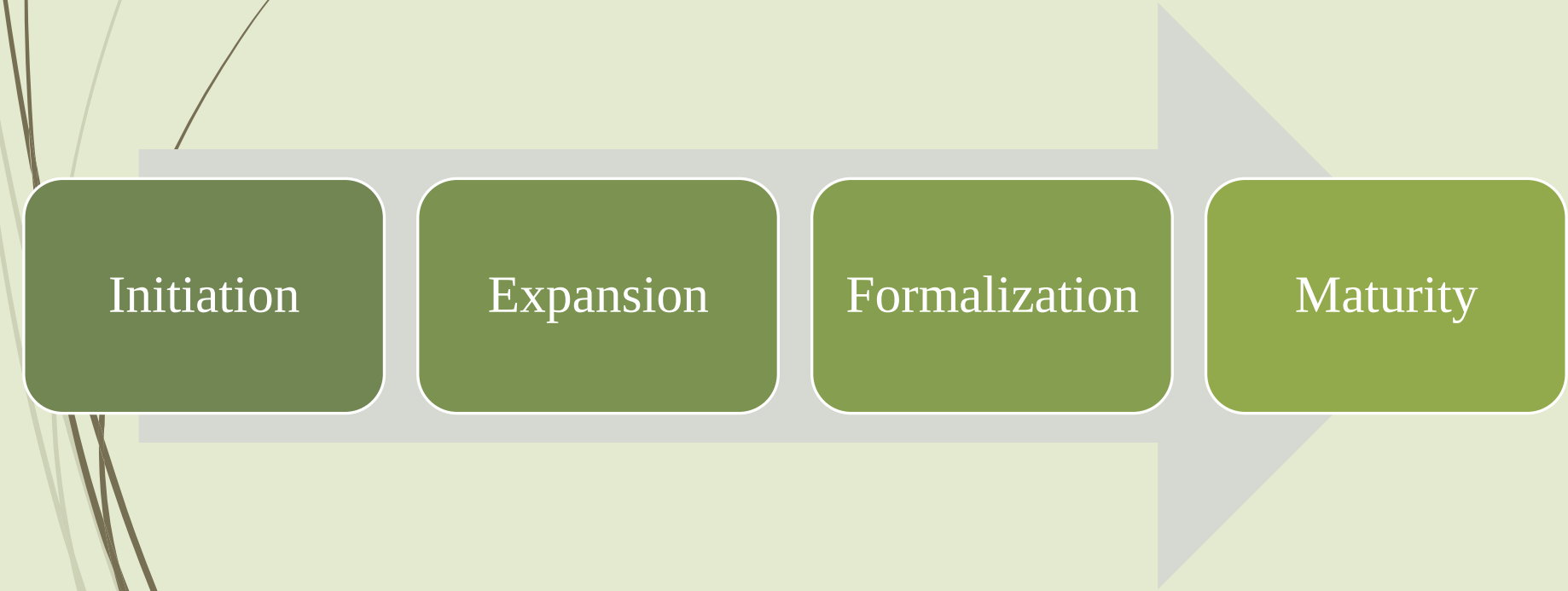
With the vast amount of data generated by organizations, IT is playing an important role in data analytics. IT leaders are working with data scientists and business leaders to analyze data, extract insights, and use those insights to drive business decisions.

Innovation

IT is driving innovation within organizations by exploring emerging technologies, experimenting with new business models, and creating new products and services. IT leaders are taking a proactive role in identifying opportunities for innovation and leveraging technology to create value for the organization.

Cox Model For IT Management(1/4)

- The Cox Model for IT Management is a framework developed by James Cox, a professor at the University of Virginia, for understanding the role of IT in organizations. The model consists of four stages:



Cox Model For IT Management(2/4)

- Initiation: In this stage, IT is used primarily for operational support, such as automating manual processes and improving efficiency. The focus is on reducing costs and increasing productivity.
- Expansion: In this stage, IT is used to support the growth of the organization. This may include expanding into new markets, developing new products and services, and enhancing customer experience. IT is seen as a strategic asset that can help the organization gain a competitive advantage.

Cox Model For IT Management(3/4)

- Formalization: In this stage, IT is integrated into the formal structure of the organization. This may involve creating a dedicated IT department, establishing IT governance processes, and developing formal policies and procedures for IT management.
- Maturity: In this stage, IT is fully integrated into the business strategy and operations of the organization. IT is seen as a critical enabler of business success, and IT leaders are involved in strategic decision-making at the highest levels of the organization.

Cox Model For IT Management(4/4)

- The Cox Model for IT Management provides a useful framework for understanding the role of IT in organizations and how that role evolves over time. It emphasizes the importance of IT as a strategic asset that can help organizations achieve their goals, and highlights the need for effective IT management processes to ensure that IT delivers value to the organization.

CIO Role For Leading, Governing, Investing and Managing(1/3)

The **CIO (Chief Information Officer)** plays a critical role in leading, governing, investing, and managing the organization's IT assets and capabilities. Here are some examples of the CIO's roles and responsibilities in these areas:

1. Leading: The CIO is responsible for developing and communicating the organization's IT strategy and vision, and ensuring that IT investments align with the overall business strategy. The CIO also leads the IT department and ensures that IT staff have the necessary skills and resources to achieve their goals.

CIO Role For Leading, Governing, Investing and Managing(2/3)

2. Governing: The CIO is responsible for establishing and enforcing IT governance policies and procedures that ensure the effective and secure use of IT resources. This includes overseeing compliance with regulatory requirements, managing IT risk, and ensuring that IT investments deliver value to the organization.

CIO Role For Leading, Governing, Investing and Managing(2/3)

3. Investing: The CIO is responsible for managing the IT budget and making strategic investments in IT that align with the organization's goals and priorities. This includes identifying and evaluating new technologies, developing business cases for IT investments, and measuring the ROI of IT projects.

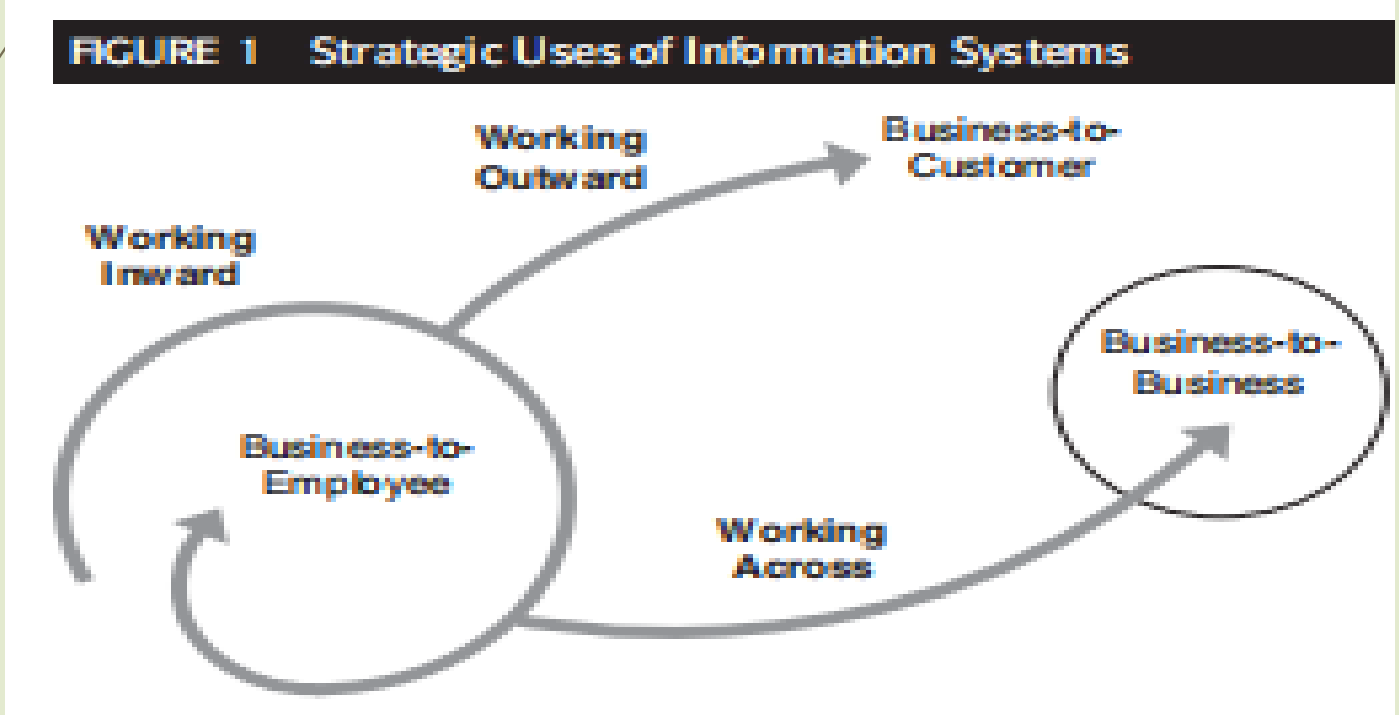
CIO Role For Leading, Governing, Investing and Managing(3/3)

4. Managing: The CIO is responsible for managing the day-to-day operations of the IT department, ensuring the availability, reliability, and security of IT systems and infrastructure. This includes managing IT staff, vendors, and service providers, and ensuring that IT services are delivered efficiently and effectively.

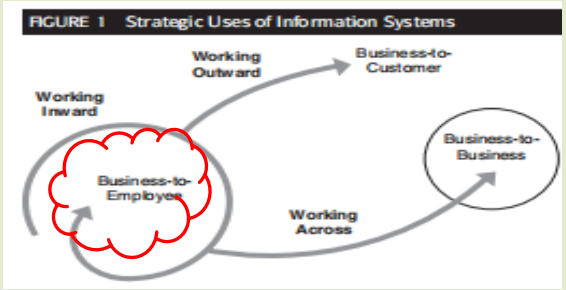
Strategic Uses Of IT

We have seen three strategic uses of IT in business:

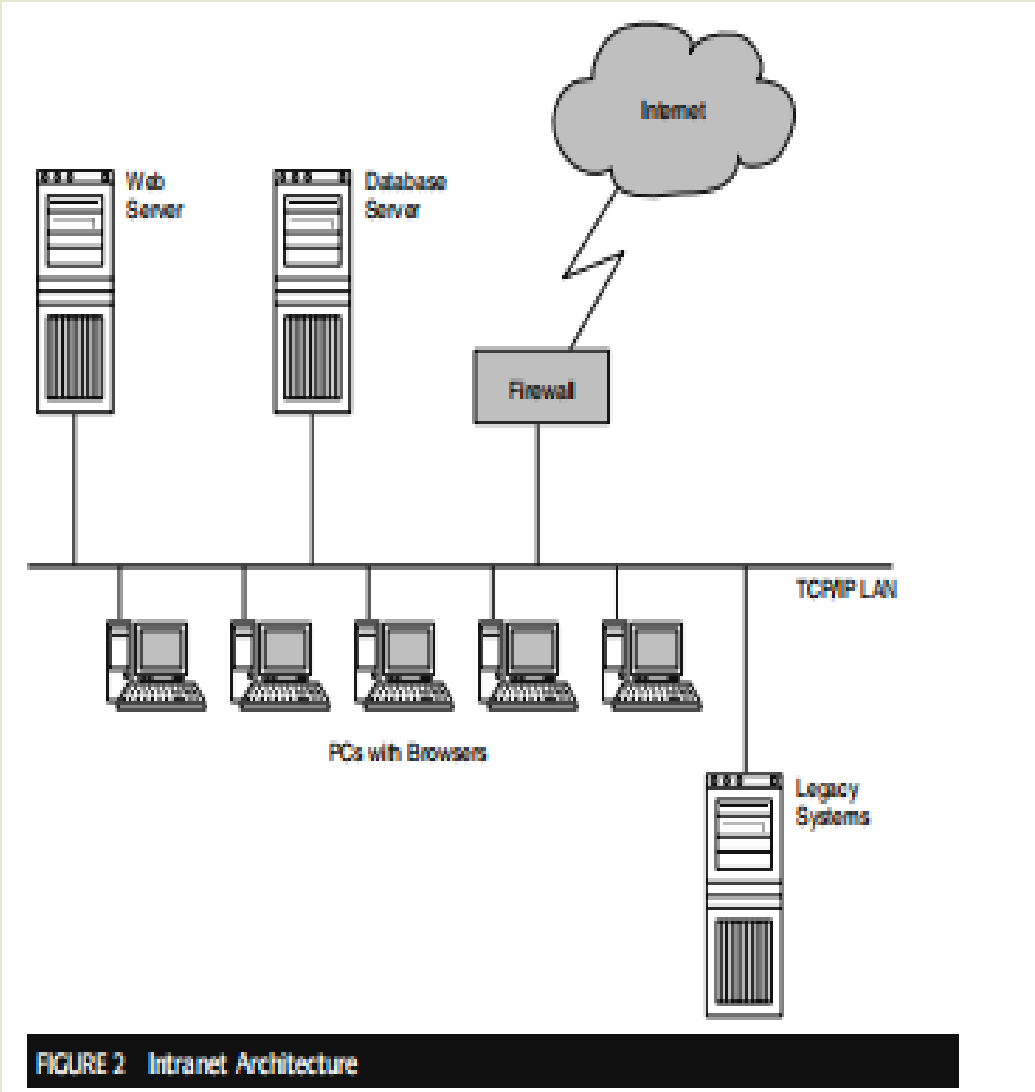
1. Working inward: Business-to-employee
2. Working outward: Business-to-customer
3. Working across: Business-to-business



1. Strategic Use of IT in B2E or Working Inward (1/4)



The essence of using IT strategically inside the enterprise has been, and continues to be, focused on improving business processes. Use of the Intranet internally is no exception. It has revolved around building intranets.



1. Strategic Use of IT in B2E or Working Inward (2/4)

B2E stands for "Business to Employee" and refers to the use of information technology (IT) to support and enhance internal business operations and communication within an organization. Here are some examples of the strategic use of IT in B2E:

- **Collaboration tools**: IT can be used to support collaboration and communication among employees, such as through the use of video conferencing, instant messaging, and project management tools. This can help to increase productivity, reduce communication barriers, and promote teamwork.

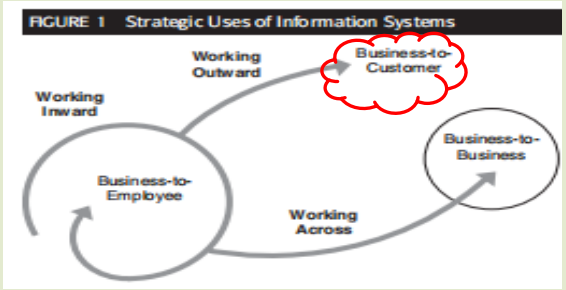
1. Strategic Use of IT in B2E or Working Inward (3/4)

- **Learning and development**: IT can be used to support employee learning and development through e-learning platforms, online training programs, and other digital resources. This can help to improve employee skills and knowledge, and ultimately drive business performance.
- **Performance management**: IT can be used to support employee performance management processes, such as through the use of performance management software and digital dashboards. This can help to align employee performance with organizational goals, and provide real-time feedback and performance metrics.

1. Strategic Use of IT in B2E or Working Inward (4/4)

- **Employee self-service**: IT can be used to enable employees to access and manage their own HR information, such as through employee self-service portals. This can help to streamline HR processes, reduce administrative burden, and improve employee satisfaction.
- **Workforce analytics**: IT can be used to collect and analyze data on employee behavior and performance, such as through the use of employee engagement surveys and workforce analytics tools. This can help to identify areas for improvement, optimize workforce management strategies, and drive better business outcomes.

2. Strategic Use of IT in B2C or Working Outward (1/4)



In most industries, companies need sophisticated computer systems to compete. For airlines, hotels, and rental car companies, a computer reservation system— either their own or someone else's—is a must. In the drug and hospital wholesaling industries, those that had automated order entry and distribution systems gobbled up those that did not have such systems. In financial markets, computerized trading and settlement systems are replacing open-outcry systems. And the list goes on.

2. Strategic Use of IT in B2C or Working Outward (2/4)

B2C stands for "Business to Consumer" and refers to the use of information technology (IT) to support and enhance customer interactions and experiences. Here are some examples of the strategic use of IT in B2C:

- **E-commerce**: IT can be used to support online transactions between businesses and consumers, such as through the use of e-commerce platforms, digital payment systems, and online marketplaces. This can help to increase sales, reduce costs, and improve the customer experience.

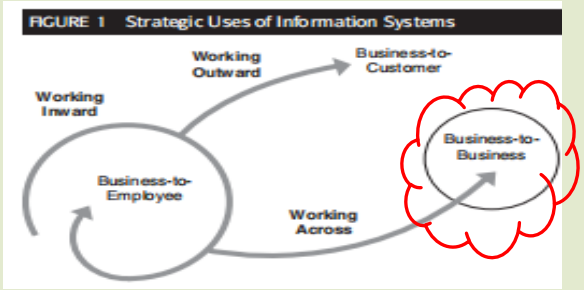
2. Strategic Use of IT in B2C or Working Outward (3/4)

- **Customer service**: IT can be used to support customer service interactions, such as through the use of chat bots, virtual assistants, and other digital tools. This can help to improve response times, reduce costs, and provide more personalized service to customers.
- **Digital marketing**: IT can be used to support digital marketing efforts, such as through the use of social media platforms, email marketing, and digital advertising. This can help to reach a wider audience, increase brand awareness, and drive customer engagement.

2. Strategic Use of IT in B2C or Working Outward (4/4)

- **Personalization**: IT can be used to provide personalized experiences to customers, such as through the use of customer data analytics, recommendation engines, and targeted marketing campaigns. This can help to improve customer satisfaction and loyalty, and drive repeat business.
- **Mobile apps**: IT can be used to develop mobile apps that allow customers to access products and services on-the-go, such as through the use of mobile shopping apps, banking apps, and travel apps. This can help to improve convenience and accessibility, and provide a more seamless customer experience.

3. Strategic Use of IT in B2B or Working Across (1/4)



Working across businesses takes numerous forms. Here are three.

- One involves working with co-suppliers;
- Second is working with customers in a close, mutually dependent relationship;
- Third is building a virtual enterprise, in fact, one that might evolve into an e-marketplace.

3. Strategic Use of IT in B2B or Working Across (2/4)

B2B stands for "Business to Business" and refers to the use of information technology (IT) to support and enhance business interactions and relationships between two or more companies. Here are some examples of the strategic use of IT in B2B:

- **Supply chain management**: IT can be used to manage and optimize the flow of goods and services between businesses, such as through the use of enterprise resource planning (ERP) systems, inventory management software, and supply chain analytics. This can help to reduce costs, improve efficiency, and increase the speed of business transactions.

3. Strategic Use of IT in B2B or Working Across (3/4)

- **Electronic data interchange (EDI)**: IT can be used to facilitate the exchange of business documents and data between companies, such as through the use of EDI systems. This can help to streamline communication, reduce errors, and improve the speed of transactions.
- **Customer relationship management (CRM)**: IT can be used to manage and analyze customer data, such as through the use of CRM software. This can help to improve customer relationships, provide better customer service, and drive customer retention.

3. Strategic Use of IT in B2B or Working Across (3/4)

- **Collaboration and communication**: IT can be used to facilitate collaboration and communication between businesses, such as through the use of project management software, video conferencing tools, and cloud-based file sharing platforms. This can help to improve teamwork, reduce communication barriers, and enhance business relationships.
- **Data analytics**: IT can be used to collect and analyze data on business operations, such as through the use of business intelligence (BI) tools and predictive analytics. This can help to identify areas for improvement, optimize business processes, and drive better business outcomes.

Establishment of Relation: Loose Close or Tight

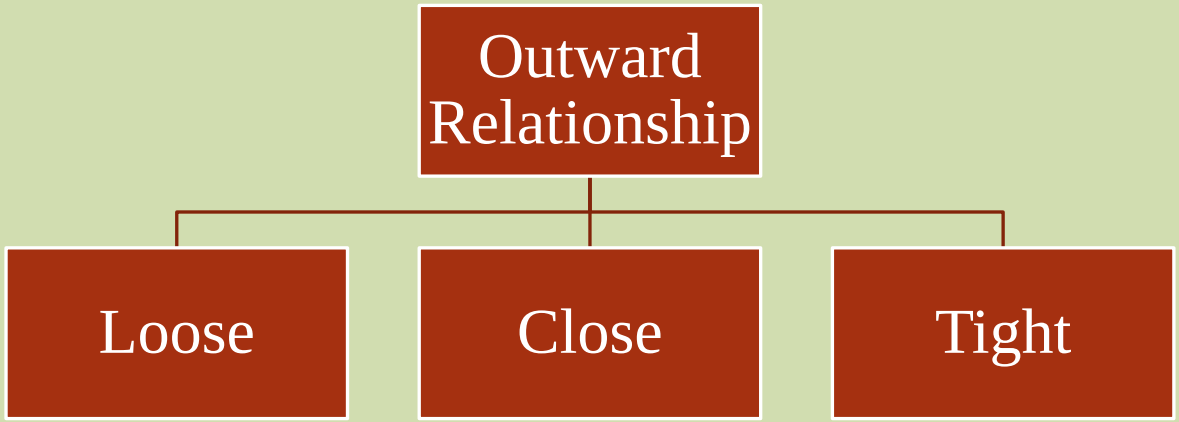
The action in strategic use of IT and the Internet has moved to the most difficult area, working across companies.

This means having relationships with various players in one's **business ecosystem—investment banks, advertising agencies, specialist providers, suppliers, distributors, retailers, even competitors.**

Such relationships often have accompanying linking information systems.

Establishment of Relation: Loose Close or Tight

Roger Woolfe' Model



	Numbers of Relationships	Potential Benefit	Cost of Integration	Risk
Tight	Few	•••	•••	•••
Close	Some	••	••	••
Loose	Many	•	•	•

• Basic conformance

•• Intermediate conformance

••• Advanced conformance with significant detail and ongoing maintenance

Establishment of Relation:
Loose Close or Tight
Roger Woolfe's Cost Pyramid for Integration

Loose Integration

In loose integration, one party provides another party with ad hoc access to its internal information. The information may or may not be confidential, and it is accessed when it is needed. An example might be a builder of small power units that lets suppliers and customers check specifications on its Web site. The business processes remain distinct. Such limited integration requires little risk or cost.

	Numbers of Relationships	Potential Benefit	Cost of Integration	Risk
Tight	Few	•••	•••	•••
Close	Some	••	••	••
Loose	Many	•	•	•

Establishment of Relation:

Loose Close or Tight

Roger Woolfe's Cost Pyramid for Integration

Close Integration

In close integration, two parties exchange information in a formal manner. Some of that information is probably confidential, and although the two parties' processes are distinct, they do handle some tasks jointly. An example is airlines sharing pricing data with each other so that they can provide more seamless service to customers using several airlines on one trip. This level of integration leads to greater benefits. However, risks do increase because confidentialities are shared. Costs of integration are also higher than in loose integration.

	Numbers of Relationships	Potential Benefit	Cost of Integration	Risk
Tight	Few	•••	•••	•••
Close	Some	••	••	••
Loose	Many	•	•	•

Establishment of Relation:
Loose Close or Tight
Roger Woolfe's Cost Pyramid for Integration

Tight Integration

In tight integration, two parties share at least one business process, as partners, in a business area that is important to them. Generally, high volumes of data are exchanged; the data can be highly confidential; and the data include key events, such as price changes. An example could be a supplier and retailer sharing a common inventory process. The intent is to synchronize operations to reduce costs and speed response time. Tight integration is the most risky because it is business critical and the most costly to integrate. In some cases, it may be difficult to identify where one organizational boundary ends and the other begins.

	Numbers of Relationships	Potential Benefit	Cost of Integration	Risk
Tight	Few	•••	•••	•••
Close	Some	••	••	••
Loose	Many	•	•	•

Strategic Use of IT in G2P: *Better to Consider (1/3)*

G2P stands for "Government to Person" and refers to the use of information technology (IT) to support and enhance government interactions with individuals or citizens. Here are some examples of the strategic use of IT in G2P:

- **Electronic government (e-government)**: IT can be used to enable citizens to access government services online, such as through the use of e-government portals, mobile apps, and digital kiosks. This can help to reduce wait times, increase convenience, and improve access to government services.

Strategic Use of IT in G2P: *Better to Consider (2/3)*

- **Social welfare programs**: IT can be used to support social welfare programs, such as through the use of electronic payment systems and digital identity management. This can help to reduce fraud and corruption, improve the speed and accuracy of benefit payments, and increase the reach of social welfare programs to those in need.
- **Citizen engagement**: IT can be used to enable citizen engagement and participation in government decision-making, such as through the use of online forums, social media, and crowd sourcing platforms. This can help to increase transparency, accountability, and public trust in government.

Strategic Use of IT in G2P: *Better to Consider (3/3)*

- **Digital literacy**: IT can be used to improve digital literacy among citizens, such as through the provision of digital skills training and access to online learning resources. This can help to bridge the digital divide and increase participation in the digital economy.
- **Data analytics**: IT can be used to collect and analyze data on government operations and citizen needs, such as through the use of data analytics tools and machine learning algorithms. This can help to identify areas for improvement, optimize government services, and drive better outcomes for citizens.