

# Ch. 1-6 Terms

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## KEY TERMS:

### Chapter 1:

- **Business-driven information systems:** systems that are implemented to support a company's competitive business strategy
- **Business process:** a standardized set of activities that accomplishes a specific task, such as processing a customer's order
- **Business-to-business (B2B) marketplace:** applies to businesses buying from and selling to each other over the internet
- **Buyer power:** high when buyers have many choices of whom to buy from and low when their choices are few
- **Chief information officer (CIO):** responsible for (1) overseeing all uses of information systems and (2) ensuring the strategic alignment of IT with business goals and objectives
- **Chief knowledge officer (CKO):** responsible for collecting, maintaining, and distributing the organization's knowledge
- **Chief privacy officer (CPO):** responsible for ensuring the ethical and legal use of information within an organization
- **Chief security officer (CSO):** responsible for ensuring the security of IT systems and developing strategies and IT safeguards against attacks from hackers and viruses
- **Chief technology officer (CTO):** responsible for ensuring the throughput, speed, accuracy, availability, and reliability of an organization's information technology
- **Competitive advantage:** a product or service that an organization's customers place a greater value on than similar offerings from a competitor
- **Data:** raw facts that describe the characteristics of an event
- **Environmental scanning:** the acquisition and analysis of events and trends in the environment external to an organization
- **First-mover advantage:** an organization can significantly impact its market share by being first to market with a competitive advantage
- **Five forces model:** helps determine the relative competitive attractiveness of an industry



### industry

- **Information:** data converted into a meaningful and useful context
- **Information systems (IS):** computer-based tools that people use to work with information and that support the information and information-processing needs of an organization
- **Information technology (IT):** the acquisition, processing, storage, and dissemination of vocal, pictorial, textual, and numerical information by a microelectronics based combination of computing and telecommunications
- **Knowledge:** actionable information
- **Loyalty programs:** reward customers based on the amount of business they do with a particular organization
- **Management information systems (MIS):** the function that plans for, develops, implements, and maintains IT hardware, software, and applications that people use to support the goals of an organization
- **Private exchange:** a B2B marketplace in which a single buyer posts its need and then opens the bidding to any supplier who would care to bid
- **Reverse auction:** an auction format in which increasingly lower bids are solicited from organizations willing to supply the desired product or service at an increasingly lower price
- **Rivalry among existing competitors:** high when competition is fierce in a market and lower when competition is more complacent
- **Supplier power:** high when buyers have few choices of whom to buy from and low when their choices are many
- **Switching costs:** the costs that can make customers reluctant to switch to another product or service
- **Threat of new entrants:** high when it is easy for new competitors to enter a market and low when there are significant entry barriers to entering a market
- **Threat of substitute products or services:** high when there are many alternatives to a product or service and low when there are few alternatives from which to choose
- **Value chain:** views an organization as a series of processes, each of which adds value to the product or service for each customer

## Chapter 2:

- **Analytical information:** encompasses all summarized or aggregated transactional data, and its primary purpose is to support the performing of higher-level analysis tasks
- **Artificial intelligence (AI):** stimulates human intelligence, such as the ability to reason and learn
- **As-is process models:** represent the current state of the operation that has been



mapped, without any specific improvements or changes to existing processes

- **Benchmarking:** the process of continuously measuring system results, comparing those results to optimal system performance (benchmark values), and identifying steps and procedures to improve system performance
- **Benchmarks:** baseline values the system seeks to attain
- **Business-facing processes:** invisible to the external customer but essential to the effective management of the business; include goal setting, day-to-day planning, performance feedback, rewards, and resource allocation
- **Business intelligence:** applications and technologies that are used to gather, provide access to, and analyze information to support people's decision-making efforts
- **Business process improvement:** attempts to understand and measure a business process and make performance improvements on that process accordingly
- **Business process management (BPM):** integrates all of an organization's business processes to make individual processes more efficient
- **Business process model:** a graphic description of a process showing the sequence of process tasks, which is developed for a specific purpose and from a selected viewpoint
- **Business process modeling (mapping):** the activity of creating a detailed flow chart, work flow diagram, use case diagram, or process map of a work process showing its inputs, tasks, and activities, in a structured sequence
- **Business process re-engineering (BPR):** the analysis and redesign of workflow within and between enterprises
- **Consolidation:** involves the aggregation of information and features simple roll-ups to complex groupings of interrelated information
- **Customer-facing processes:** the result in a product or service that is received by an organization's external customer
- **Decision support system (DSS):** models data and information to support managers, analysts, and other business professionals during the decision-making process for more analytical purposes
- **Digital dashboards:** integrates information from multiple components and tailors the information to individual preferences
- **Drill-down:** enables users to view details, and details of details, of information
- **Effectiveness IS metrics:** measures the impact IS has on business processes and activities including customer satisfaction, conversion rates, and sell-through increases
- **Efficiency IS metrics:** measures the performance of the IS itself such as throughput, speed, and availability
- **Executive information system (EIS):** a specialized DSS that supports senior level executives within the organization
- **Expert systems:** computerized advisory programs that imitate the reasoning processes



of experts in solving difficult problems

- **Fuzzy logic:** a mathematical method of handling imprecise or subjective information
- **Genetic algorithm:** an artificial intelligence system that mimics the evolutionary, survival-of-the fittest process to generate increasingly better solutions to a problem
- Goal-seeking analysis:
- **Intelligent agent:** a special-purpose knowledge-based information system that accomplishes specific tasks on behalf of its users
- **Intelligent systems:** various commercial applications of artificial intelligence
- **Key performance indicators (KPI):** measures that are tied to business drivers
- **Neural network (artificial neural network):** a category of AL that attempts to emulate the way the human brain works
- **Online analytical processing (OLAP):** the analysis of summarized or aggregated information sourced from transaction processing systems data, and sometimes external information from outside industry sources to create business intelligence in support of strategic decision making
- **Online transaction processing (OLTP):** the capturing of transaction and event data using information systems to (1) process the data according to defined business rules, (2) store the data, and (3) update existing data to reflect the new information
- **Semi-structured decisions:** managerial decisions which occur in situations in which a few established processes help to evaluate potential solutions, but not enough to lead to a definite recommended decision
- **Sensitive analysis:** the study of the impact that changes in one (or more) parts of the model have on other parts of the model
- **Shopping bot:** software that will search several retailer websites and provide a comparison of each retailer's offerings including price and availability
- **Slice-and-dice:** the ability to look at information from different perspectives
- **Structured decisions:** operational decisions which arise in situations where established processes offer potential solutions
- **To-be process models:** shows the results of applying change improvement opportunities to the current (as-is) process model
- **Transaction processing system (TPS):** the basic business system that serves the operational level (clerks and analysts) in an organization
- **Transactional data:** encompasses all of the information contained within a single business process or unit of work, and its primary purpose is to support the performing of daily operational tasks
- **Unstructured decisions:** strategic decisions which occur in situations in which no procedures or rules exist to guide decision makers towards the correct choice
- **Virtual reality:** a computer-generated environment that can be simulated work or a imaginary world



### imaginary world

- **What-if analysis:** checks the impact of a change in an assumption on the proposed solution

## Chapter 3:

- **Application programming interface (API):** a set of routines, protocols, and tools for building software applications
- **Application service provider (ASP):** a company that offers an organization access over the internet to systems and related services that would otherwise have to be located in personal or organizational computers
- **Associate (affiliate) programs:** businesses can generate commissions or royalties from an internet site
- **Banner ad:** small ad on one web site that advertises the products and services of another business, usually another e-business
- **Brick-and-mortar business:** a business that operates in a physical store without an internet presence
- **Business-to-business (B2B):** an internet-based service that brings together many buyers and sellers
- **Business-to-consumer (B2C):** applies to any business that sells its products or services to consumers over the internet
- **Click-and-mortar business:** a business that operates in a physical store and on the internet
- **Click-through:** a count of the number of people who visit on site and click on an advertisement that takes them to the site of the advertiser
- **Clickstream data:** exact pattern of a consumer's navigation through a site
- **Consumer-to-business (C2B):** applies to any consumer that sells a product or service to a business over the internet
- **Consumer-to-consumer (C2C):** applies to sites primarily offering goods and services to assist consumers interacting with each other over the internet
- **Cookie:** a small file deposited on the hard drive by web site containing information about customers and their web activities
- **Cybermediation:** the creation of new kinds of intermediaries that simply could not have existed before the advent of e-business, including comparison-shopping sites such as Kelkoo and bank account aggregation services such as citibank
- **Digital Darwinism:** organizations that cannot adapt to the new demands placed on them for surviving in the information age are doomed to extinction
- **Digital wallet:** both software and information—the software provides security for the transaction and the information includes payment and delivery information (e.g., the



transaction and the information includes payment and delivery information (e.g., the credit card number and expiration date)

- **Disintermediation:** occurs when a business sells directly to the customer online and cuts out the intermediary
- **Disruptive technology:** a new way of doing things that initially does not meet the needs of existing customers
- **E-business:** the conducting of business on the internet, not only buying and selling, but also serving customers and collaborating with business partners
- **E-business model:** an approach to conducting electronic business on the internet
- **E-commerce:** the buying and selling of goods and services over the internet
- **E-government:** involves the use of strategies and technologies to transform government(s) by improving the delivery of services and enhancing the quality of interaction between the citizen-consumer within all branches of government
- **E-mail:** consists of a number of e-shops; it serves as a gateway through which a visitor can access other e-shops
- **E-procurement:** the B2B purchase and sale of supplies and services over the internet
- **E-shop (e-store, e-trailer):** a version of a retail store where customers can shop at any hour of the day without leaving their home or office
- **Electronic bill presentment and payment (EBPP):** system that sends bills over the internet and provides an easy-to-use mechanism (such as clicking on a button) to pay the bill
- **Electronic catalogue:** presents customers with information about goods and services offered for sale, bid, or auction on the internet
- **Electronic cheque:** mechanism for sending a payment from a chequing or savings account
- **Electronic data interchange (EDI):** a standard format for exchanging business data
- **Electronic marketplaces (e-marketplaces):** interactive business communities providing a central market space where multiple buyers and suppliers can engage in e-business activities
- **Encryption:** scrambles information into an alternative form that requires a key or password to decrypt the information
- **Extranet:** an intranet that is available to strategic allies (such as customers, suppliers, and partners)
- **Financial EDI (financial electronic data interchange):** standard electronic process for B2B market purchase payments
- **Hypertext transport protocol (HTTP):** the Internet standard that supports the exchange of information on the WWW.
- **Information reach:** refers to the number of people a business can communicate with, on a global basis



- **Information richness:** refers to the depth and breadth of information transferred between customers and businesses
- **Interactivity:** measures the visitor interactions with the target ad
- **Intermediaries:** software or businesses that provide a trading infrastructure to bring buyers and sellers together
- **Internet:** a global public network of computer networks that pass information from one to another using common computer protocols
- **Internet service provider (ISP):** a company that provides individuals and other companies access to the internet along with additional related services, such as web site building
- **Intranet:** an internalized portion of the internet, protected from outside access, that allows an organization to provide access to information and application software to only its employees
- **Kiosk:** publicly accessible computer system that has been set up to allow interactive information browsing
- **Long tail:** the tail of a typical sales curve
- **Maintenance, repair, and operations (MRO's) materials (indirect materials):** materials necessary for running an organization but do not relate to the company's primary business activities
- **Mashup editors:** software editing tool for mashups
- **Mass customization:** ability of an organization to give its customers the opportunity to tailor its products or services to the customers' specifications
- **Mobile commerce (m-commerce):** the ability to purchase goods and services through a wireless internet-enabled device
- **Online service provider (OSP):** offers an extensive array of unique services such as its own version of web browser
- **Personalization:** occurs when a website can know enough about a person's likes and dislikes that it can fashion offers that are more likely to appeal to the person
- **Pop-under ad:** form of a pop-up ad that users do not see until they close the current web browser screen
- **Pop-up ad:** small web page containing an advertisement that appears on the web page outside of the current web site loaded in the web browser
- **Portal:** a web site that offers a broad array of resources and services, such as email, online discussion groups, search engines, and online shopping malls
- **Protocols:** standards that specify the format of data as well as the rules to be followed during transmission
- **Pure-play (virtual) business:** a business that operates on the internet only, without a physical store
- **Reintermediation:** steps that are added to the value chain as new players find ways to



- **Reintermediation:** steps that are added to the value chain as new players find ways to add value to the business process
- **Secure electronic transaction (SET):** transmission security method that ensures transactions are secure and legitimate
- **Secure socket layer (SSL):** (1) creates a secure and private connection between a client and server computer, (2) encrypts the information, and (3) sends the information over the internet
- **Semantic web:** an evolving extension of the world wide web in which web content can be expressed not only in natural language, but also in a format that can be read and used by software agents, thus permitting them to find, share, and integrate information more easily
- **Service level agreements (SLAs):** define the specific responsibilities of the service provider and set the customer expectations
- **Service-oriented architecture (SOA):** a business-driven IT architectural approach that supports integrating business as linked, repeatable tasks or services
- **Sustaining technology:** produces an improved product customer are eager to buy, such as a faster car or larger hard drive
- **Value-added network (VAN):** a private network, provided by third party, for exchanging information through a high capacity connection
- **Viral marketing:** technique that induces web sites or users to pass on a marketing message to other web sites or users, creating exponential growth in the message's visibility and effect
- **Web 2.0:** a set of economic, social, and technology trends that collectively form the basis for the next generation of the internet – a more mature, distinctive medium characterized by users participation, openness, and network effects
- **Web 3.0:** describes the evolution of web usage and interaction among several separate paths. These include transforming the web into a database, a move toward making content accessible by multiple non-browser applications, the leveraging of artificial intelligence technologies, or the semantic web
- **Web mashup:** a web site or web application that uses content from more than one source to create a completely new service
- **Wireless internet service provider (WISP):** an ISP that allows subscribers to connect to a server at designated hotspots or access points using a wireless connection
- **World Wide Web (WWW):** a global hypertext system that uses the internet as its transport mechanism

## Chapter 4:

- **Accounting and finance ERP components:** manages accounting data and financial processes within the enterprise with functions such as general ledger, accountants



processes within the enterprise with functions such as general ledger, accounts payable, accounts receivable, budgeting, and asset management

- **Balanced scorecard:** a management system (not only a measurement system) that enables organizations to clarify their vision and strategy and translate them into action
- **Business intelligence:** application and technologies that are used to gather, provide access to, and analyze information to support people's decision-making efforts
- **Core ERP components:** traditional components included into most ERP systems and they primarily focus on internal operations
- **Corporate policy:** a dimension of social responsibility that refers to the position a firm takes on social and political issues
- **Corporate responsibility:** a dimension of social responsibility that includes everything from hiring minority workers to making safe products
- **Customer relationship management (CRM):** involves managing all aspects of a customer's relationship with an organization to increase customer loyalty and retention, and an organization's profitability
- **E-business:** the conducting of business on the internet, not only buying and selling, but also serving customers and collaborating with business partners
- **E-logistics:** manages the transportation and storage of goods
- **E-waste:** old computer equipment
- **Electronic tagging:** a technique for identifying and tracking assets and individuals via technologies, such as radio frequency identification and smart cards
- **Enterprise application integration (EAI) middleware:** represents a new approach to middleware by packaging together commonly used functionality, such as providing prebuilt links to necessary to develop solutions that integrate applications from multiple vendors
- **Enterprise resource planning (ERP):** integrates all departments and functions throughout an organization into a single information system (or integrated set of information systems) so that employees can make decisions by viewing enterprise wide data on all business operations
- **Extended ERP components:** the extra components that meet the organizational needs not covered by the core components and primarily focus on external operations
- **Functional systems:** information systems that serve a single business unit, such as accounting
- **Human resources ERP components:** track employee data including payroll, benefits, compensation, and performance assessment, and assure compliance with the legal requirements of multiple jurisdictions and tax authorities
- **Innovation:** the introduction of new equipment or methods
- **Legacy system:** older computer technology that remains in use even though there are newer systems available



- **Middleware:** different types of software that sit in the middle of and provide connectivity between two or more software applications
- **Mobile commerce (m-commerce):** the ability to purchase goods and services through a wireless internet-enabled device
- **Production and materials management ERP components:** handle the various aspects of production planning and execution such as demand forecasting, production scheduling, job cost accounting, and quality control
- **Social responsibility:** implies that an entity, whether it is a government, corporation, organization, or individual, has a responsibility to society
- **Supply chain management (SCM):** involves the management of information flows between and among stages in a supply chain to maximize total supply chain effectiveness and profitability
- **Sustainable (“green”) IT:** the manufacture, management, use, and disposal of information technology in a way that minimizes damage to the environment, which is a critical part of a corporation’s responsibility
- **Sustainable IT disposal:** the safe disposal of IT assets at the end of their lifecycle
- **Telematics:** the blending of computers and wireless telecommunications technologies with the goal of efficiently conveying information over vast networks to improve business operations
- **Virtualization:** a framework of dividing the resources of a computer into multiple execution environments

## Chapter 5:

- **Bullwhip effect:** occurs when distorted product demand information passes from one entity to the next throughout the supply chain
- **Collaborative demand planning:** helps organizations reduce their investment in inventory, while improving customer satisfaction through product availability
- **Collaborative engineering:** allows an organization to reduce the cost and time required during the design process of a product
- **Demand planning systems:** generates demand forecasts using statistical tools and forecasting techniques
- **Distribution management systems:** coordinate the process of transporting materials from a manufacturer to distribution centres to the final customer
- **Global inventory management systems (GIMS):** provide the ability to locate, track, and predict the movement of every component or material anywhere upstream or downstream in the supply chain
- **International organization for standardization (ISO):** a non-governmental organization established in 1947 to promote the development of world standards to



facilitate the international exchange of goods and services

- **Inventory management and control systems:** provide control and visibility to the status of individual items maintained in inventory
- **Material requirements planning (MRP) systems:** uses sales forecasts to make sure that needed parts and materials are available at the right time and place in a specific company
- **Operational planning and control (OP&C):** deals with the day-to-day procedures for performing work, including scheduling, inventory, and process management
- **Operations management (OM):** the management of systems or processes that convert or transform resources (including human resources) into goods and services
- **Production:** the creation of goods and services using the factors of production: land, labour, capital, entrepreneurship, and knowledge
- **Production management:** describes all the activities managers perform to help companies create goods
- **Selling chain management:** applies technology to the activities in the order life cycle from inquiry to sale
- **Strategic business units (SBUs):** businesses that consist of several stand-alone businesses. SBUs are typically found in large conglomerates
- **Strategic planning:** focuses on long-range planning such as plant size, location, and types of processes to be used
- **Supply chain:** consists of all parties involved, directly or indirectly, in the procurement of a product or raw materials
- **Supply chain event management (SCEM):** enables an organization to react more quickly to resolve supply chain issues
- **Supply chain execution (SCE) systems:** automate the different steps and stages of the supply chain
- **Supply chain management (SCM):** involves the management of information flows between and among stages in a supply chain to maximize total supply chain effectiveness and profitability
- **Supply chain planning (SCP) systems:** use advanced mathematical algorithms to improve the flow and efficiency of the supply chain while reducing inventory
- **Supply chain visibility:** the ability to view all areas up and down the supply chain
- **Tactical planning:** focuses on production goods and services as efficiently as possible within the strategic plan
- **Transformation process:** often referred to as the technical core, especially in manufacturing organizations, and is the actual conversion of inputs to outputs
- **Transportation planning systems:** tracks and analyzes the movement of materials and products to ensure the delivery of materials and finished goods at the right time, the right place, and lowest cost



right place, and lowest cost

- **Value-added:** the term used to describe the difference between the cost of inputs and the price value of outputs

## Chapter 6:

- **Alliance partners:** competitor organizations that co-operate with one another since doing so allows them to compete more successfully with other competitors
- **Analytical CRM:** supports back-office operations and strategic analysis and includes all systems that do not deal directly with the customers
- **Automatic call distribution:** a phone switch routes inbound calls to available agents
- **Call-scripting systems:** access organizational databases that track similar issues or questions and automatically generate the details for the CSR who can then relay them to the customer
- **Campaign management systems:** guide users through marketing campaigns, performing such tasks as campaign definition, planning, scheduling, segmentation, and success analysis
- **Contact centre (call centre):** customer service representatives (CSRs) answer customer inquiries and respond to problems through a number of different customer touchpoints
- **Contact management CRM systems:** maintains customer contact information and identifies prospective customers for future sales
- **CRM analysis systems:** help organizations segment their customers into categories such as best and worst customers
- **CRM manager:** a person in an organization who is held accountable and is responsible for the continued successful rollout of CRM in the organization
- **CRM predicting systems:** helps organizations make predictions regarding customer behavior, such as which customers are at risk of leaving
- **CRM reporting systems:** help organizations identify their customers across other applications
- **Cross-selling:** selling additional products or service to a customer
- **Dealers:** agents who sell products or services on behalf of a company or organization, particularly in the automobile industry
- **Employee relationship management (ERM):** a management activity that focuses on managing an organization's relationships with its employees
- **Interactive voice response (IVR):** directs customers to use touch-tone phones or keyboards to navigate or provide information
- **List generators:** compile customer information from a variety of sources and segment that information for different marketing campaigns



- **Operational CRM:** supports traditional transactional processing for day-to-day front-office operations or systems that deal directly with the customers
- **Opportunity management CRM systems:** target sales opportunities by finding new customers or companies for future sales
- **Partner relationships management (PRM):** focuses on keeping vendors satisfied by managing alliance partner and reseller relationships that provide customers with the optimal sales channel
- **Personalization:** occurs when a web site can know enough about a person's likes and dislikes that it can fashion offers that are more likely to appeal to that person
- **Predictive dialing:** automatically dials outbound calls and when someone answers, the call is forwarded to an available agent
- **Resellers:** companies or individuals who purchase goods and products in bulk with the intention of reselling at a profit
- **Retailers:** stores or shops operating at the end of the supply chain that acquire goods or products from manufacturers or importers, and then sell smaller quantities of these goods or products to consumers at higher prices to cover expenses and make a profit
- **Sales force automation (SFA):** a system that automatically tracks all of the steps in the sales process
- **Sales management CRM systems:** automate each phase of the sales process, helping individual sales representatives co-ordinate and organize all of their accounts
- **Supplier relationship management (SRM):** focuses on keeping suppliers satisfied by evaluating and categorizing suppliers for different projects, which optimizes supplier selection
- **Up-selling:** increasing the value of a sale
- **Web-based self-service systems:** allows customers to use the web to find answers to their questions or solutions to their problems

