

Enterprise Systems for Management, 2e (Motiwalla/Thompson)
Chapter 2 Systems Integration

1) When data has to be manually re-entered from one system into another system, this indicates that the systems have seamless integration.

Answer: FALSE

Diff: 2 Page Ref: 37

2) When systems are integrated they can share information in real-time.

Answer: TRUE

Diff: 1 Page Ref: 37

3) ERP systems allow organizations to integrate heterogeneous systems into one with an integrated database system.

Answer: TRUE

Diff: 2 Page Ref: 38

4) Until recently, information systems and organizations have evolved into functional silos.

Answer: TRUE

Diff: 2 Page Ref: 38

5) Mid-level managers typically focus on planning the long-term strategy of the organization.

Answer: FALSE

Diff: 1 Page Ref: 39

6) The current classification of organizations into departments like Accounting and Human Resources shows how the organizational structure evolved by breaking complex tasks into smaller, manageable tasks.

Answer: TRUE

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7) Organizations have horizontal and vertical divisions.

Answer: TRUE

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8) When organizations get large and complex they tend to break functions into larger units and assign one or more staff the responsibility for these activities.

Answer: FALSE

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9) When organizations get large and complex sharing of information happens only at higher levels of management.

Answer: TRUE

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10) The functional silo problem gave birth to BPR.

Answer: TRUE

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11) The business process view flattens the organization structure from a matrix to a hierarchical structure.

Answer: FALSE

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12) Information systems that work independently and are grouped by the various functions and/or departments are known as silos.

Answer: TRUE

Diff: 2 Page Ref: 42

13) Independent information systems are good for sharing data between users.

Answer: FALSE

Diff: 1 Page Ref: 43

14) Functional silos deliver value through their cross-functional performance but are evaluated for their functional performance.

Answer: TRUE

Diff: 3 Page Ref: 43

15) Silo environments help to foster enterprise decision-making and overall effectiveness.

Answer: FALSE

Diff: 2 Page Ref: 43

16) The functional model of POSDCORB (Planning, Organizing, Staffing, Directing, Coordinating, Reporting, Budgeting) dates back to the 1930s yet is still in use today.

Answer: TRUE

Diff: 1 Page Ref: 38

17) The distributed system architecture has been commonly used in organizations for quite some time.

Answer: TRUE

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18) The first generation of computer architecture was the decentralized approach.

Answer: FALSE

Diff: 2 Page Ref: 44

19) In a decentralized computer architecture, every user is given a personal computer.

Answer: TRUE

Diff: 2 Page Ref: 44

20) A centralized computer architecture is based on using servers to share data and applications.

Answer: FALSE

Diff: 2 Page Ref: 44

21) A distributed architecture is good for ERP systems because they are flexible and scalable.

Answer: TRUE

Diff: 2 Page Ref: 44

22) The manufacturing area has basically the same information needs and reporting requirements as the marketing area.

Answer: FALSE

Diff: 2 Page Ref: 44

23) Transaction processing systems are designed to support office workers.

Answer: FALSE

Diff: 2 Page Ref: 45

24) Decision support systems take data from the TPSs in the organization to help managers make better decisions.

Answer: TRUE

Diff: 3 Page Ref: 45

25) Expert systems are a type of Executive Support System to support top-level executives.

Answer: FALSE

Diff: 2 Page Ref: 45

26) Silos will probably not prevent customer service representatives from accessing customer data payment records in real-time.

Answer: FALSE

Diff: 2 Page Ref: 38

27) Systems integration can't help employees at a lower levels make better decisions and feel more empowered and productive.

Answer: FALSE

Diff: 3 Page Ref: 38

28) The people issues are the most challenging in systems integration.

Answer: TRUE

Diff: 3 Page Ref: 38

29) Functional department heads will probably lose control of the data they produce in an integrated system.

Answer: TRUE

Diff: 3 Page Ref: 39

30) Getting employee buy-in on a systems integration project is very critical for the success of the integrated system.

Answer: TRUE

Diff: 2 Page Ref: 39

31) One consequence of making information more easily shared will be that integrated systems won't make it easier to get illegal access to the data.

Answer: FALSE

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32) CEOs and Presidents are involved in planning the long-term strategy of the organization.

Answer: TRUE

Diff: 1 Page Ref: 37

33) Lower-level managers rarely focus on the day-to-day operations of the organization.

Answer: FALSE

Diff: 1 Page Ref: 38

34) A cross-functional task such as order processing involves interactions between sales, warehousing and accounting.

Answer: TRUE

Diff: 2 Page Ref: 40

35) Heterogeneous or independent non-integrated systems create bottlenecks, interfere with productivity, and breed inaccurate data.

Answer: TRUE

Diff: 2 Page Ref: 41

36) The three major types of information system architectures include centralized, decentralized and distributed systems architectures.

Answer: TRUE

Diff: 2 Page Ref: 44

37) Today's information systems are based on a centralized architecture that allows sharing of applications and data resources between the end user and the server computers.

Answer: FALSE

Diff: 3 Page Ref: 44

38) The distributed system architecture is very complex requiring careful planning and design.

Answer: TRUE

Diff: 1 Page Ref: 45

39) Information systems support the major functional areas of a business including manufacturing, finance, accounting, human resources, and marketing.

Answer: TRUE

Diff: 1 Page Ref: 45

40) Operating systems and databases are examples of systems that support the end-users directly.
Answer: FALSE
Diff: 2 Page Ref: 46

41) A(n) _____ provides a visual dashboard of strategic information to top-level management in real time.
A) DSS
B) TPS
C) ESS
D) OAS
Answer: C
Diff: 2 Page Ref: 45

42) Information systems that are used for generating reports for mid-level managers are known as:
A) ESS.
B) DSS.
C) databases.
D) MIS.
Answer: D
Diff: 2 Page Ref: 45

43) Systems integration means allowing access to a shared data resource by people from different _____ areas of the organization.
A) functional
B) geographical
C) decisional
D) logical
Answer: A
Diff: 2 Page Ref: 46

44) At the physical level, systems integration means providing seamless connectivity between _____ systems.
A) software
B) functional
C) distributed
D) heterogeneous
Answer: D
Diff: 2 Page Ref: 46

45) Business _____ reengineering involves changing the mindset of employees to do their tasks in a new way.

- A) software
- B) system
- C) process
- D) task
- E) function

Answer: C

Diff: 2 Page Ref: 46

46) To get employees to do their task in a new way, managers must get them to shift their focus from achieving _____ goals to organizational goals.

- A) procedural
- B) departmental
- C) functional
- D) individual
- E) practical

Answer: B

Diff: 2 Page Ref: 46

47) One step in the systems integration process is to develop a policy on whether older, _____ systems will be supported and maintained.

- A) business
- B) functional
- C) departmental
- D) legacy

Answer: D

Diff: 3 Page Ref: 47

48) To avoid support and maintenance problems with the integrated system it is important to create a _____ IT help desk and support.

- A) strategic
- B) business
- C) centralized
- D) network
- E) distributed

Answer: C

Diff: 3 Page Ref: 47

49) If there is a system failure or a major disaster it is crucial that a good _____ system for the integrated system be in place.

- A) hardware
- B) backup and recovery
- C) database
- D) crisis management
- E) electrical

Answer: B

Diff: 2 Page Ref: 47

50) The first step in systems integration is to take inventory of the various IT _____ being used in the organization.

- A) resources
- B) databases
- C) hardware components
- D) integrated systems
- E) web-enabled applications

Answer: A

Diff: 2 Page Ref: 47

51) _____ tools are good for short-term integration of existing applications in the organization.

- A) Hardware
- B) Data integration
- C) Real-time access
- D) Business process integration
- E) Middleware

Answer: E

Diff: 3 Page Ref: 46

52) In general, the biggest benefits of implementing an integrated system include a reduction in inventory and _____ costs.

- A) personnel
- B) direct
- C) material
- D) silo
- E) indirect

Answer: A

Diff: 3 Page Ref: 48

53) Being able to approve a customer's credit application on the spot is an example of how integrated systems can provide better:

- A) resources.
- B) market research.
- C) information visibility.
- D) support.

Answer: C

Diff: 3 Page Ref: 49

54) A side benefit of integration is that the organization is forced to _____ its hardware, software, and IT policies.

- A) review
- B) reengineer
- C) upgrade
- D) standardize

Answer: D

Diff: 2 Page Ref: 48

55) Because of the high initial setup costs for the integrated system, it is particularly crucial to have a strong commitment from:

- A) the consultants.
- B) the IT staff.
- C) top management.
- D) the employees.

Answer: C

Diff: 2 Page Ref: 49

56) Because systems integration often involves sharing information across departments, this often creates _____ among the functional departments.

- A) power conflicts
- B) new opportunities
- C) network failures
- D) better decisions

Answer: A

Diff: 2 Page Ref: 49

57) Many benefits of integrated systems are _____ so they are difficult to quantify.

- A) financial
- B) operational
- C) intangible
- D) decisional
- E) tangible

Answer: C

Diff: 2 Page Ref: 48

58) ERP systems are integrated, multi-module _____ software packages.

- A) network
- B) web-service
- C) database
- D) application
- E) platform

Answer: D

Diff: 2 Page Ref: 48

59) At the _____ level, ERP systems require organizations to focus on business processes rather than functions.

- A) presentation
- B) logical
- C) middleware
- D) physical
- E) hardware

Answer: B

Diff: 3 Page Ref: 49

60) ERP systems come with built-in _____ for a variety of functions such as entering a customer order.

- A) tasks
- B) vendors
- C) processes
- D) users
- E) roles

Answer: C

Diff: 2 Page Ref: 50

61) Because of an ERP system, customers should be able to find out _____ the current status of their orders.

- A) eventually
- B) on the web
- C) in real-time
- D) quickly

Answer: C

Diff: 2 Page Ref: 50

62) Hershey's ERP project failed initially because they failed to break their existing:

- A) chocolate bars.
- B) functional silos.
- C) cross-functional roles.
- D) hardware resources.
- E) software development patterns.

Answer: B

Diff: 3 Page Ref: 50

63) The current generation of ERP systems does not work well with _____ architecture on legacy platforms.

- A) in-house
- B) distributed
- C) grid
- D) centralized
- E) cross-platform

Answer: D

Diff: 3 Page Ref: 51

64) An organization that wants to connect its systems with its partners and suppliers needs to have a robust _____ system in place.

- A) supply chain
- B) ERP
- C) DSS
- D) TPS

Answer: B

Diff: 3 Page Ref: 51

65) One benefit of ERP systems is that they allow organizations to quickly form and break _____ with other companies.

- A) networks
- B) web services
- C) protocols
- D) alliances

Answer: D

Diff: 3 Page Ref: 51

66) Integrated systems should _____ share information with one another.

- A) never
- B) slowly
- C) rarely
- D) seamlessly

Answer: D

Diff: 1 Page Ref: 37

67) Manually reentering data in a system _____ leads to more errors and inaccuracies.

- A) rarely
- B) usually
- C) always
- D) never

Answer: B

Diff: 1 Page Ref: 37

68) Early business organizations focused on breaking complex work tasks into _____ tasks that could be more easily managed and controlled.

- A) larger
- B) more complex
- C) smaller
- D) non-working

Answer: C

Diff: 2 Page Ref: 37

69) The hierarchical layers of an organization from strategic planning to operational control represent _____ silos.

- A) horizontal
- B) matrix
- C) corn
- D) vertical

Answer: D

Diff: 1 Page Ref: 39

70) As organizations get more _____ and more virtual, information sharing and communication problems get worse.

- A) centralized
- B) geographically dispersed
- C) automated
- D) integrated

Answer: B

Diff: 2 Page Ref: 40

71) The business process view flattens the organization from a hierarchical to a _____ structure.

- A) vertical
- B) relational
- C) matrix
- D) horizontal

Answer: C

Diff: 3 Page Ref: 40

72) A(n) _____ organization focuses all its business processes around improving its relationship with its customers.

- A) sales oriented
- B) non-profit
- C) vertical
- D) customer-centric

Answer: D

Diff: 2 Page Ref: 41

73) _____ systems focus on individual tasks and/or functions rather than on a process and supporting team collaboration.

- A) Matrix
- B) Vertical
- C) Hierarchical
- D) Silo

Answer: D

Diff: 2 Page Ref: 42

74) In silo systems information is captured and re-entered several times and is not available in _____.

- A) batches
- B) real-time
- C) back-ups
- D) hardcopy

Answer: B

Diff: 2 Page Ref: 42

75) The evolution of Information Systems is often viewed as a(n) _____ change process in which technologies, human factors, organizational relationships and tasks change continuously.

- A) easy
- B) automated
- C) simplified
- D) socio-technical

Answer: D

Diff: 3 Page Ref: 44

76) How have organizations evolved into vertical silos over the years? What impact does this have on information sharing?

Answer: Since the late 1960s, researchers found that organizations divided up responsibility in hierarchical layers. These layers were associated with strategic planning, management control, and operational control. These layers in the organization helped to define the business roles at each level; i.e. CEOs focused on strategic planning, managers focused on management control, and line-level people were involved in day-to-day operations. With respect to information sharing and systems, each layer has different information and reporting needs, so they typically had totally separate systems to support their individual needs. These systems were not oriented towards sharing information up and down the vertical silo or hierarchy.

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77) How have organizations evolved into horizontal silos over the years? What impact does this have on information sharing?

Answer: The idea of breaking up the business into horizontal silos goes back to the early 1900s. This was when a researcher first divided up a business into five basic areas; planning, organizing, coordinating, commanding and controlling. This later evolved into the functional areas or departments that we use today; i.e. Accounting, HR, Marketing, Finance, and Management. This way tasks could be broken down into smaller, more manageable tasks and assigned to specific people who would be held responsible for them. However, this focus on smaller tasks and individuals led to the development of specific information systems to support them. These systems were not designed with sharing in mind since the organization as a whole was not as concerned with this. So sharing information was especially difficult since there was little support for the "process view" of the organization.

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78) List and describe at least three different limitations of systems integration.

Answer: One obvious limitation of these systems is that they have a very high cost of implementation for the hardware, software and labor involved. These systems can also lead to major conflicts among the leaders of the various functional departments, since they know that by openly sharing their data they may be giving up some of their own individual power. These systems are often criticized for limiting the creativity of the individual departments which can also lead to important innovations. By forcing everyone to use the same system and procedures this may impact future innovations. Also, making the financial case for these systems can be difficult since so many of the benefits are intangible and also because other benefits may not show for several years out.

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79) How does changing from a functional view to a process view of the business impact the structure of the organization?

Answer: The idea of using the business process, such as order processing, as an alternative way of grouping people and resources can have a large impact on the structure of the organization. First, people are evaluated on a new set of process metrics as opposed to the old view of measuring employees solely on the performance of their functional area. The business process view also leads to a flattening out of the organizational structure from a hierarchical to a more of a matrix structure. This is because decisions and information are pushed down the hierarchy and resources to some extent too.

Diff: 3 Page Ref: 40

80) Describe three different limitations of integrating systems.

Answer: The initial implementation of integrated systems is high in terms of both hardware and software costs and human costs due to the re-engineering of business processes. Systems integration often involves sharing of information across department and interdepartmental teams. This often creates power conflicts among the functional departments if they have not bought into the integration. The return on investments (ROI) from systems integration often do not show up until several years after the implementation, and many of these returns come in intangible form and are therefore not recognized on the bottom line of the organization. One last limitation that often occurs with integrated systems is that it restricts creativity and independence in the functional areas since they must now work together in a standardized format.

Diff: 2 Page Ref: 48

81) List and describe the three main information system architectures.

Answer: An information system architecture is important because it describes how computing resources will be accessed and shared throughout the organization. This is especially important for the design of the integrated information systems. Originally, users had to connect to a mainframe computer with a variety of terminals in what was a very centralized IS architecture. With the advent of personal computers on everyone's desktop, computing became very decentralized since they had limited connections to other computers. Eventually, these personal computers were all linked up together in Client/Server networks in what is now known as a distributed IS architecture. This current model provides huge improvements in speed, power and access to data and applications, and does so for lower costs.

Diff: 2 Page Ref: 44

82) What is a distributed architecture? Why is it used so much for integrated systems such as ERP?

Answer: The current systems being developed are based on the distributed architecture. This architecture depends on complex networks of client machines and servers linked up over a variety of networks. It combines features of both the centralized and decentralized architectures in that each user has a powerful machine and local resources, but can also access a wider variety of powerful applications and data stored on the more powerful servers on the network. This kind of architecture was crucial to the development of integrated systems such as ERP because they helped link up users in different functional areas and gave them better access to common data and applications. They were also cheaper and more scalable so more servers could be added to the system as needed.

Diff: 3 Page Ref: 44

83) Briefly describe three different levels in an organization and the different categories of information systems that support them.

Answer: At the bottom of the organizational hierarchy are all the operating systems and database applications which the IT staff have to use in order to do their jobs. Line managers and operations staff also have to have access to Transaction Processing Systems which every organization needs to record transactions such as sales orders and purchase orders. At the highest level of the organization, executives use Executive Support Systems to get a graphical view of how the organization is performing. Other important systems include Office Automation Systems for clerical staff, Management Information Systems for mid-level managers, and Decision Support Systems which are designed for Knowledge Workers.

Diff: 3 Page Ref: 40

84) What is the difference between logical and physical systems integration? Give an example of each.

Answer: Logical integration refers to how users get access to data across functional areas. For example, sales people need to get approval for customer credit from the credit managers in the finance department so this would be logical integration in the order processing process. Underneath the logical integration, the required applications and databases need to be connected physically. For example, customer data in a mainframe system may have to be linked up with credit management applications running on a Client/Server network. This would be an example of physical systems integration.

Diff: 3 Page Ref: 46

85) Describe three different benefits of integrating systems.

Answer: One of the biggest benefits is that integrated systems allow the organization to reduce its inventory and cut personnel costs. These systems will also help smaller companies provide a level of customer service that is equal to that provided by larger companies so they will be able to compete better. Getting better and more timely information should also help both managers and employees make better decisions. Also, by standardizing hardware, software and IT policies the company will save money in the long run.

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