

Case study instructional notes

Business



Instructor's Manual Enterprise Resource Planning, 1/E CHAPTER 1: A FOUNDATION FOR UNDERSTANDING ENTERPRISE RESOURCE PLANNING SYSTEMS CHAPTER OBJECTIVES 1. Develop an understanding of how ERP systems can improve the effectiveness of information systems in organizations. 2. Understand the business benefits of enterprise resource planning (ERP) systems. 3. Understand the history and evolution of ERP.

CHAPTER OUTLINE 1. A Foundation for Understanding Enterprise Resource Planning Systems a. The Emergence of Enterprise Resource Planning Systems 1. What is ERP? 2. The Evolution of ERP

3. The Integrated Systems Approach .

Business Benefits of ERP c. ERP Modules d. ERP Design Alternatives e. The Business Case for ERP 1. Cost-Benefit Analysis for ERP 2. Can ERP Provide a Competitive Advantage? f.

The Challenge of Implementing an ERP System g. Summary ANSWERS TO END-OF-CHAPTER QUESTIONS Questions for Discussion: 1. Use on-line library databases to identify articles in trade publications which provide case studies of ERP implementations. These articles may provide some insight into each of these questions. a.

How widespread is the use of ERP across certain industries? b. What are the benefits reported from implementing ERP? . What are its limitations? 2. Research and learn about the implementation of ERP.

Use trade publications and on-line library databases (e.

g. ABI Inform, ProQuest, First Search, Wilson Select Plus, available through your library) to conduct a search for articles. a. Find a success story of ERP implementation. What factors contributed to the success of this implementation? b.

Find a story of problems encountered with an ERP implementation. What factors contributed to the obstacles which were encountered?? Possible resources: Austin, Robert D. , Sole, Deborah, and Cotteleer, Mark J. Harley DavidsonMotor Company: Enterprise Software Selection. " HarvardBusiness School case study (2003): 1-23. Austin, Robert D. , Nolan, Richard L. , and Cotteleer, Mark J. " Cisco Systems, Inc. : Implementing ERP.

" Harvard Business School case study (2002): 1-19. Gabriele Hirt, Sabine and Swanson, E. Burton.

" Adopting SAP at Siemens Power Corporation. " Journal of Information Technology 14 (1999): 243-251.

Jesitus, John. " Broken Promises? Fox Meyer's project was a disaster. Was the company too aggressive or was it misled? " Industry Week (1997): 31-37.

Songini, Marc L. " Halloween Less Haunting For Hershey This Year. Computerworld.

Vol. 34 (45), p. 13-14. Stedman, Craig. " Failed ERP Gamble Haunts Hershey.

" Computerworld. Vol. 33(44), p. 1. Weiss, Todd R.

, Songini, Marc L. " Hershey Upgrades R/3 ERP System Without Hitches. " Computerworld, Vol. 36(37), p. 25-28 Case: Business Research You are a

business analyst for MPK Industries, a consulting firm that tracks worldwide trends in information technology. Using suggested on-line databases and Internet resources provide answers to the following questions.

1. What is the expected future growth of the ERP marketplace in terms of overall sales? a.

Break this down by sales in the United States and international sales? b. Break this down by Fortune 500 companies and mid-cap companies (e. g. mid-cap companies are defined as having sales between \$50 and \$400 million per year).

2. What is the relative market share of the major ERP vendors? a. Break this down by sales in the U. S. and international sales.

b. Break this down by Fortune 500 companies and mid-cap companies.

Possible Resources: Web site What it provides [www. amrresearch. com](http://www.amrresearch.com)
Results of vendor surveys [http://www.](http://www.technologyevaluation.com)

[technologyevaluation. com](http://www.technologyevaluation.com) Market research [www. computerworld.](http://www.computerworld.com/softwaretopics/erp)

[om/softwaretopics/erp](http://www.computerworld.com/softwaretopics/erp) Links to useful ERP sites, articles, publications, and chat rooms [www. erpfans.](http://www.erpfans.com)

[com](http://www.apics.com) Links to support groups for many vendors [www. apics.](http://www.apics.org/resources/magazine/current)

[org/resources/magazine/current](http://www.apics.org/resources/magazine/current) Links to current APICS news CHAPTER 2: RE-ENGINEERING AND ENTERPRISE RESOURCE PLANNING SYSTEMS CHAPTER

OBJECTIVES 1. Recognize the factors associated with the evolution to enterprise systems, including business process re-engineering, client-server

networking, and the emergence of integrated databases. 2. Understand the role of process modeling in re-designing business processes.

CHAPTER OUTLINE 2.

Re-engineering and Enterprise Resource Planning Systems a. Background b. Business Process Re-engineering c. Process Modeling d.

Re-engineering at Reliable Finance Company 1. Background of the Business 2. Analysis of the Current Loan Application and Screening System 3. Current Problems 4. Objectives e.

Making Re-engineering Work f. How Information Technology Facilitates ERP 1. Emergence of Client-Server Computing 2. Integrated Databases g. The Emergence of Process Enterprises 1.

ERP and Business Process Change h. Summary ANSWERS TO END-OF-CHAPTER QUESTIONS Questions for Discussion: 1.

Conduct a search to find a case in business re-engineering, similar to some of the cases mentioned in this chapter (e. g. Ford, Mutual Benefit Life, Hewlett Packard). a. Was an ERP system associated with the business-process re-engineering? Many ERP projects reported in the trade journals will include a description and discussion of the re-engineering of business processes which occurred when the ERP system was implemented. When an organization implements ERP, it is important to re-engineer existing business processes to conform with the “ best practices” which are supported by the ERP software. .

What business benefits were derived from adopting “ best practices? ‘ The benefits of implementing the “ best practices” which are supported by the ERP system include many of the benefits which were described in Chapter 1. Some of these benefits include: quickened response time, improved order management, decreased financial close cycles, improved interaction with customers, improved on-time delivery, lowered inventory levels, and reduced operating costs. c. What obstacles needed to be overcome as a result of implementing changes in workflow, work methods, and work systems?

One of the major obstacles to be overcome is resistance by individuals who are affected by changes in work methods and procedures. It is important to communicate the benefits of the ERP implementation and to provide effective training for everyone who is affected by the change in business processes. 2.

Why is business process re-engineering a critical component of the successful implementation of ERP? The implementation of an ERP system provides an opportunity to re-engineer the organization’s business processes around the “ best practices” which are supported by the ERP.

In most cases, this provides better operating efficiency, access to shared information across cross-functional units, elimination of redundant processes, and improved business productivity. 3. How does information technology facilitate the process of business re-engineering. Without information technology, would business process change be possible? Information technology enables the transition to shared databases and business processes which depend upon “ network” access to these shared <https://assignbuster.com/case-study-instructional-notes/>

databases. For example, the re-engineering of the Accounts Payable process at Ford Motor Company depended upon the creation of an integrated, shared database among Purchasing, Receiving and Accounts Payable.

In another example, the re-engineering of Hewlett Packard's purchasing process required remote access to a central shared database of negotiated vendor prices. Case Exercise: 1. What problems with business processes and information do you feel occur in the current payment processing system at Reliable Finance? Problems with the current payment processing system include: a. Late and missing payment matters are causing a great deal of clerical overhead. . About 30% of the payments are made in-person to the Branch, and these payments must be APR'd to the Home Office, causing delays in posting these payments to the Outstanding Loans File in the Home Office.

c. About 50% of the payments are mailed to the Branch, and these payments must also be APR'd to the Home Office, causing delays in posting these payments to the Outstanding Loans File. d. The rest of the payments (around 20%) are made to the Home Office, and this creates problems in tracing the loan payment to the appropriate loan account.

When payments are made to the Home Office, they need to be APR'd to the branch.

Sometimes, unidentified payments are mailed to the wrong Branch, triggering more clerical work and error detection. e. Many clerical people at the Branches are involved in maintaining the local database, pulling voucher copies, recording payments, and making out APR's. f. The delays in posting

payments to the central Outstanding Loans file sometimes cause overdue payment reminders to be sent to customers who have already paid on their accounts.

This causes additional clerical work in answering questions and tracing payments. g. It is difficult to follow-up on delinquent payments, since the existing bottlenecks make it difficult to isolate the loans which are legitimately delinquent. h. Bottlenecks and delays in payment processing complicate cash flow, and it is difficult to identify revenues on a timely basis.

2. What changes in process and information flow are needed to improve the payment processing system? Draw a new process model for a re-engineering payment processing system at Reliable Finance.

Changes in processes and information: a. Force all payments to be made directly to the Branch. In this way, Branch personnel can handle data entry and validation and transmit payment transactions to the Home Office for overnight update.

In the Home Office, these payment transactions can be used to update the central Outstanding Loans File each night, so that current balances appear each morning. b. Requiring that all payments be made directly to the Branch eliminates the local Branch files and eliminates the APR paper chase between the Branches and Home Office and vice versa. c.

Improve screening for incoming loan applicants by setting up a delinquency analysis system which identifies the characteristics of “ high potential for delinquency” accounts. See Figure 2-2: New Process Model: Payment Processing System (Appendix).

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CHAPTER 3: PLANNING, DESIGN, AND IMPLEMENTATION OF ENTERPRISE

RESOURCE PLANNING SYSTEMS CHAPTER OBJECTIVES Understand the

information systems development process for enterprise systems, including

planning, design, and implementation. CHAPTER OUTLINE 3. Planning,

Design, and Implementation of Enterprise Resource Planning Systems a.

Traditional Systems Development b.

New Approaches to Systems Development c. The ERP Systems Development

Process 1.

Planning: Making the Business Case for ERP 2. Requirements Analysis 3.

Design: Re-engineering Versus Customizing 4. Alternative ERP Design

Options 5. Detailed Design 6.

Implementation d. ERP Implementation Steps e. Summary ANSWERS TO

END-OF-CHAPTER QUESTIONS Questions for Discussion: 1. How does the

traditional systems development life cycle differ from the ERP information

systems design and implementation process? The traditional systems

development life cycle includes systems analysis, design, detailed design,

and implementation.

Based upon an analysis of the current system, systems designers can make

changes in processes, data, and procedures to improve productivity and

performance. These process and information changes become the basis for

system implementation.

In ERP systems design, the user selects a software package which meets the

organization's requirements. In most cases, ERP implementation requires the

organization to re-engineer its business processes to fit the package and the

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“ best practices” which the package supports. 2. What are the advantages of the re-engineering method of implementing ERP?

What are its disadvantages? Advantages of re-engineering: Is supported by an ERP solution; takes advantage of “ shared” or “ generic” processes within industries (e. g.

industry templates); best practices may represent improved process changes; documents “ best practices;” works well when there is minimal organizational change. Disadvantages of re-engineering: Does not support “ strategic” or unique business processes; resistance occurs when there is extensive organizational change. 3. What are the advantages of the customizing method of implementing ERP? What are its disadvantages?

Advantages of customizing: Supports unique business processes; “ strategic” processes are maintained. Disadvantages of customizing: An ERP may not support these unique business processes; re-inventing the wheel; customization is difficult, since modules are integrated; difficult to upgrade the software to newer versions, since upgrades are based on “ vanilla” versions.

4. Dell wanted a more flexible architecture and the opportunity to select software from various vendors. What were the advantages and disadvantages to using this approach? See: D. Slater, “ An ERP package for you, and you, and even you, CIO Magazine, Feb.

5, 1999. Advantages of selecting software from a variety of vendors: can select packages which fit unique requirements; avoids in-house implementation.

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This is also known as a “best of breed” approach. Disadvantages of selecting software from a variety of vendors: purchasing individual licenses for different packages will be more costly than acquiring an integrated package; individual packages may not be compatible with each other, so the organization will not benefit from the data and process integration which an ERP supporting multiple business functions can provide. .

What are the advantages and disadvantages of using an Application Service Provider to implement ERP? Using an Application Service Provider enables the client to have access to technological expertise and is more cost-effective than a full-scale internal ERP implementation. However, using an ASP creates dependence upon the reliability and stability of the vendor, and the organization can be vulnerable. CHAPTER 4: ERP SYSTEMS: SALES AND MARKETING CHAPTER OBJECTIVES 1. Understand the sales and marketing module. 2.

Recognize the interrelationships among business processes supporting sales and marketing, production, accounting and finance, and human resources.

CHAPTER OUTLINE 4. ERP Systems: Sales and Marketing a. Case: Atlantic Manufacturing b. Sales and Marketing Processes c. Management Control Processes in Sales and Marketing 1.

Sales Management Processes 2. Sales Forecasting Processes 3. Advertising and Promotion 4. Product Pricing Systems d. Sales and Marketing Modules in ERP Systems e.

ERP and Customer Relationship Management 1. Customer Service f.

Integration of Sales and Marketing with Other Modules . Summary ANSWERS <https://assignbuster.com/case-study-instructional-notes/>

TO END-OF-CHAPTER QUESTIONS Questions for Discussion: 1. Gather information about the best practices which are associated with the Sales and Distribution modules within an ERP package.

You can do this by (1) conducting research on the web; (2) interviewing a user of a Sales and Marketing package; (3) using an on-line database to find an article in a trade publication which describes the effective use of a Sales and Marketing module; or (4) using a Sales and Marketing module within an ERP system to identify new best practices. a.

What are the best practices, associated with the Sales and Marketing module which you have discovered? Tracks customer contacts Provides the customer with a timely price quote Configures quantity discounts Checks the inventory database to see if items can be delivered on time Updates the production planning database to avoid any shortfalls Updates accounting records Provides an interface with CRM (customer relationship management) b. How do they contribute to overall productivity? Provides information for CRM Updates multiple databases with sales information

Provides greater consistency of information and reduces redundancy c. What information for decision making do they provide? Sales analysis, by product Sales analysis, by customer Sales forecasting, by product Sales forecasting, by customer 2.

The Sales and Marketing module within ERP is regarded as the module with the most interfaces to other modules, including Human Resources, Materials Management, Production Planning, and Financial Accounting. Describe the

interfaces between the Sales and Marketing module and each of these other modules:

Module
 What information is shared with Sales and Distribution
 Human Resources
 Can match salesperson's and service person's qualifications with specific customers requirements
 Materials Management
 Material master describes spare parts which may be needed by customers
 Production Planning
 Sales forecast becomes an input into production planning
 Financial Accounting
 Bills customers for service and receives payments
 CHAPTER 5: ERP SYSTEMS: ACCOUNTING AND FINANCE
 CHAPTER OBJECTIVES
 1. Understand the accounting and financial systems within ERP.
 2. Recognize the interrelationships among business processes supporting sales and marketing, production, accounting and finance, and human resources.

CHAPTER OUTLINE 5. ERP Systems: Accounting and Finance
 a. Case: Atlantic Manufacturing
 b. Accounting and Finance Processes
 c. Management Control Processes in Accounting
 1. Cash Management Processes
 2. Capital Budgeting Processes
 d. Accounting and Finance Modules in ERP Systems
 1. Financial Accounting Modules in ERP
 2. Management Accounting Modules in ERP Systems
 e. The New Role for Management Accounting
 f. Summary

ANSWERS TO END-OF-CHAPTER QUESTIONS
 Questions for Discussion:
 1. Gather information about the best practices which are associated with the Financial Accounting modules within an ERP package. You can do this by (1) conducting research on the web; (2) interviewing a user of a Financial

Accounting module; (3) using an on-line database to find an article in a trade publication that describes the effective use of a Financial Accounting module; or (4) using a Financial Accounting module within an ERP system to identify best practices. a.

What are the best practices you have discovered?

A/R balances are automatically updated, so that Sales has up-to-date information on customer credit limits. ERP automatically updates the increase in the monetary value of finished goods when finished goods are transferred to the warehouse. Determines the costs that accrue in producing a product or performing a service; helps provide information for price setting, stock valuation, and inventory valuation. d. How do they contribute to overall productivity? ERP provides inter-connected document flow that establishes an audit trail and makes it possible to research and to link source documents. e.

What information for decision making do they provide? Provides up-to-date information on cost variances, which enables the company to establish prices that will enable it to sell products profitably. Provides profitability reports with planned vs. actual comparisons. Provides profitability reports with a comparison of current period vs. cumulative period.

Identifies which products or markets have the highest contribution margins.

2. The Financial Accounting module is often the first module to be implemented within an ERP system. Why do many companies start with the Financial Accounting module?

The Financial Accounting module supports highly structured accounting practices which are already familiar to the organization and will not require significant process changes. The Financial Accounting module within ERP is a “central clearinghouse” for accounting information that is updated and used by different functional areas of the business, including materials management, production planning, human resources, and sales and distribution.

3. Many divisions of organizations seek decentralized financial control. How can an ERP system be implemented to ensure local financial decision making and control?

The financial accounting module within the ERP system can be configured so that financial accounting processes remain under local control, and so that data integrity is a local responsibility. 4. The Management Accounting module within ERP has interfaces to many other modules, including Human Resources, Sales and Distribution, Materials Management, Production Planning, and Financial Accounting. Describe the interfaces between the Management Control module and each of these other modules: Module What information is shared with Management Accounting Human Resources Expenses for payroll transactions

Sales and Distribution Revenue from billing documents Materials Management Cost of goods to Management Accounting Production Planning Cost of bills of materials which are created in Production Planning Financial Accounting The source of data for Management Accounting (e.

g. revenue postings to the general ledger) 5. The Mid-Level Market for ERP

The high-end accounting software vendors (SAP, PeopleSoft, BAAN and Oracle, for example) see the potential of the midlevel market, and in order to edge into it, they've been scaling down their expensive and complex products.

The mid-level market is variously described as organizations with annual revenue of between \$2 million and \$20 million or more than 100 employees (Jones, 2002). By removing some high-end functions and restricting users' ability to customize the remaining ones, the vendors can trim prices, and, they claim, because the products are less complicated, implementation can be speeded up from an average of two years to anywhere from three to six months. For a midsize organization, that is a major plus because they usually lack the information technology staff required to customize an ERP package.

Gather research on ERP packages which address the needs of the mid-level market. What challenges do mid-market companies face in implementing ERP software? Jones, Roberta Ann, " Spotlight on midlevel ERP software," *Journal of Accountancy*, V. 193, No. 5, May 2002, pp. 24-47.

Instructor Notes: Students should identify ERP software options which address the needs of the mid-level marketplace. They can use on-line library databases to search for case studies of mid-market companies which are implementing ERP software. They can also use search engines to learn about vendor options for supporting mid-market companies.

Options include: Great Plains, Peoplesoft, Oracle, and SAP. The case studies of mid-market companies which are implementing ERP will provide insight

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into the challenges of implementing this software. These challenges are likely to be similar to the challenges larger companies face in implementing ERP.

Challenges typically include: re-engineering business processes to fit the “best practices” supported by the ERP software, training end-users, obtaining relevant technical expertise, and implementing the system within time and budgetary constraints.

Mid-market companies are less likely to try to customize or modify ERP software, and this may enable them to implement ERP within time and cost targets. Customizing ERP software is a major cause of project time and cost overruns. CHAPTER 6: ERP SYSTEMS: PRODUCTION AND MATERIALS MANAGEMENT CHAPTER OBJECTIVES 1. Understand the production and materials management systems within ERP. 2.

Recognize the interrelationships among business processes supporting sales and marketing, production and materials management, and accounting and finance. CHAPTER OUTLINE 6.

ERP Systems: Production and Materials Management a. Case: Atlantic Manufacturing b. Background c.

Production Planning and Manufacturing Processes d. Management Control Processes in Production and Manufacturing 1. Material Requirements Planning (MRP) 2. Capacity Planning Processes e. Production Planning and Manufacturing Modules in ERP Systems f. Materials Management Modules in ERP Systems g.

The Future of ERP in Manufacturing and the Supply Chain 1. Manufacturing Execution Systems (MES) and ERP 2. Advanced Planning and Scheduling Systems 3. Data Collection 4. Business Strategies in Manufacturing and ERP h. Summary ANSWERS TO END-OF-CHAPTER QUESTIONS Questions for Discussion: 1.

Many people argue that MRP is a precursor to ERP, and that ERP systems were designed to integrate MRP systems with financial and accounting systems. a. Given the interrelationship between MRP and ERP, does it make sense for a non-manufacturing company to adopt an ERP system? A non-manufacturing company can benefit from the integration of ERP modules supporting Sales and Marketing, Financial Accounting, Management Accounting, Materials Management, and Human Resources.

Companies can identify ERP modules that support their business functions and achieve significant benefits through process standardization, data integration, management reporting, and operational productivity. In addition, ERP becomes a foundation for advanced applications, including CRM, eBusiness, and business intelligence.

b. Have manufacturing systems been the basis for all ERP systems? The original MRP systems were precursors to ERP. ERP systems were instrumental in integrating manufacturing processes with other business processes.

ERP systems manage continuous improvement of processes across the supply chain so that customers' needs for information about products and services are met. However, ERP systems can effectively support any part of <https://assignbuster.com/case-study-instructional-notes/>

the supply chain by introducing “ best practices” which improve operational effectiveness.

Many of today’s ERP systems specialize in non-manufacturing applications, such as Human Resources and Financial Management. The broadened definition of ERP provides organizations with an opportunity to identify modules that best fit their needs. 2.

Gather information about the best practices which are associated with the Production Planning and Materials Management modules within an ERP package. You can do this in one of four ways (1) Conduct research on the web; (2) Interview a user of a Production Planning/Materials Management module within an ERP package; (3) Use an on-line database to find an article in a trade publication which describes the effective use of a Production Planning/Materials Management module; or (4) Use a module within an ERP system to identify new “ best practices. ” a.

What are the best practices you have discovered?

Sales Forecasting: Production has access to sales forecasts, so that they can adjust production levels to actual sales if sales differ from expectations. Sales and Operations Planning: Determines if production facilities can produce enough to meet consumer demand. Demand Management: Breaks down the production plan into weekly production; produces the Master Production Schedule, which is the production plan for finished goods. MRP: Determines the amount and timing of raw materials orders or subassemblies to support the Master Production Schedule. Demand Scheduling: Schedules production based on demand (e. .

need to make sure there is not too much inventory). Materials Management (Procurement): Determines needs, based upon determining re-order point, regular checking of stock, and forecasting based upon usage. Identifies potential sources of supply, and compares alternative quotations. b. How is the ERP system with Production and Materials Management modules superior to a non-integrated Manufacturing system (i. e.

. where the Financial Systems and MRP systems are separate). The ERP system provides integration between production and materials management data and accounting data.

In Production Planning, the inventory function posts components that are needed to fill Production Orders. Both Purchasing and Financial Accounting share common vendor data.

All Purchase Orders are assigned to a cost center in the Management Accounting module. c. What information for decision making does the integrated system provide? Provides information for forecasting requirements for Master Production Scheduling and Material Requirements Planning. Provides information on what materials are needed, in what quantity, and at what time for production.

Provides information on replenishment schedules for all manufactured components, purchased parts, and raw materials.

Provides information on due dates for production orders and purchase requisitions via lead-time scheduling. 3. The Production Planning and Materials Management modules within ERP have interfaces to other modules, including Human Resources, Sales and Distribution, and Financial
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Accounting. Describe these interfaces: Module
 What information is shared with Production Planning and Materials Management Human Resources
 Available labor hours for production

Sales and Distribution
 When a Purchase Requisition is created, it is assigned to a Sales Order
 Financial Accounting
 Purchasing maintains vendor data, which is defined jointly with Financial Accounting
 CHAPTER 7: ERP SYSTEMS: HUMAN RESOURCES
 CHAPTER OBJECTIVES
 1. Understand the human resources processes that are supported by an ERP system.

2. Recognize the interrelationships among business processes supporting human resources, financial accounting, and other modules.
 CHAPTER OUTLINE
 7. ERP Systems: Human Resources
 a. Case: Atlantic Manufacturing
 b. Human Resource Management Processes
 c.

Human Resource Information Systems . Human Resource Modules in ERP Systems
 1. Attributes of Human Resource Modules in ERP Systems
 2. Management Control Modules in ERP Systems
 e. Integration of HR Modules with Other Modules
 f.

Summary
 ANSWERS TO END-OF-CHAPTER QUESTIONS
 Questions for Discussion:
 1. Compensation for sales representatives is an important issue in many industries. If compensation packages are inadequate, salespeople will move to other firms with more attractive compensation packages. What information can an HR module provide to enable managers to develop compensation strategies to attract and retain successful sales representatives?

An ERP system can provide data on: What salaries and compensation packages do we need to offer our sales representatives in order to be competitive in our industry? What is the impact of various pay plans on retention and promotion of personnel? What do external market surveys say about job pricing? 2. How can an HR system enable an organization to meet reporting requirements that are consistent with the following government statutes? f. Age Discrimination in Employment Act g.

Equal Pay Act h. Family Leave and Medical Act i. Occupational Safety and Health Act (OSHA) j. Title VII of the Civil Rights Act of 1978 . Vocational Rehabilitation Act of 1973 An ERP system can maintain and update data needed for government reporting requirements for Affirmative Action, OSHA, and other statutes. 3.

Collect information about the best practices, which are associated with the HR module within an ERP package. You can do this by (1) conducting research on the web; (2) interviewing a user of an HR package; (3) using an on-line database to find an article in a trade publication which describes the effective use of an HR module; or (4) using an HR module within an ERP system. a. What are the best practices you have discovered?

An ERP HR module supports a number of “ best practices,” including: Defines each position within the organization; provides “ common” job categories, job descriptions, and job specifications which can be used across the organization. Maintains information for recruiting, screening, evaluating, and selecting candidates for employment.

Maintains personnel information, including job history, salary, and retirement and benefit choices. Maintains employee compensation data and compensation changes, e. g. salary increases, salary history, job evaluation results, and appraisal results. Maintains performance appraisal data and productivity data. .

How do they contribute to overall productivity? An ERP system can improve productivity by: Maintaining information on special skills and work

experience, so that internal candidates for new positions can be identified.

Identifying training deficits, so that employees can be booked in appropriate training. Identifying what additional human resources are needed in the short- and long-term. Identifying what new skill sets will be needed.

Determining the implications of skill and knowledge requirements for training and development. Providing self-selection of benefits for employees.

c. What information for decision making do they provide?

An ERP system can provide information for making a number of decisions, including: What are our most effective recruiting sources? (e. g. universities, web sites, referrals, search firms, etc.)? What are the characteristics of our most effective managers (e.

g. educational background, experience, etc.)? What are the characteristics of information technology professionals whom we retain? What job categories experience the highest turnover? What skill sets are missing among our human resources professionals? What replacement personnel need to be planned for as a result of retirements? 4.

Many organizations purchase the HR module from one ERP vendor (e. g. , Peoplesoft) and the Financial Accounting modules from another ERP vendor (e. g. , SAP). a. What do you see as the advantages of this approach? This follows the best-in-breed approach, in which the organization selects the modules from a variety of vendors.

This approach enables the firm to purchase the modules that most closely fit its needs. b. What do you see as the disadvantages of this approach? The main disadvantage of this approach is that the modules from different vendors are not integrated with each other as a part of a total ERP suite.

Since integration among modules is an important justification for ERP implementation, it may be difficult to make a business case for acquiring modules from different vendors. The costs of acquiring modules from different vendors will be greater than the costs of purchasing an integrated package.

Recurring costs, including licenses and maintenance agreements, will also be greater. In addition, upgrading modules to new versions will require dealing with multiple upgrades and multiple vendor relationships. 5. Turnover among IT professionals has been a big issue for many years.

There is a tremendous investment made in training IT professionals, and this is why turnover represents a considerable cost. What information will enable the manager to better understand turnover and to develop human resources strategies to minimize turnover among IT professionals? Information which might help managers determine the reasons for turnover among IT professionals might include: A comparative analysis of competitive market <https://assignbuster.com/case-study-instructional-notes/>

salary data and internal salary data for various positions within information technology.

Exit interviews with information technology personnel.

Information on the characteristics of information technology personnel who leave their positions. Information on the characteristics of information technology personnel who are retained. Information on what skill sets are of emerging importance in the information technology field. Information on what skill sets need to be developed by internal information technology personnel.

Information on whether current training opportunities enable information technology professionals to maintain appropriate skill sets. CHAPTER 8: MANAGING AN ERP PROJECT CHAPTER OBJECTIVES 1.

Recognize the importance of project management and control in minimizing the risk factors associated with implementing ERP systems. 2. Understand the process of organizational change and its application to enterprise system development, implementation, and operations. CHAPTER OUTLINE 8.

Managing an ERP Project a. What Research Shows about ERP Project Implementation Success b. Causes of Information Systems Project Failures c. Risk Factors in Information Systems Projects d. Risks in Implementing an ERP System 1.

Technology Risks 2. Organizational Risks 3. People Factors 4. Project Size . Managing Large-Scale ERP Projects 1.

Managing the Risk Factors in ERP Projects 2. Comparison of Successful Versus Unsuccessful ERP Projects a. Project-related Factors b. Accidental Factors c. Two Projects: FoxMeyer Versus Dow Chemical f. Summary

ANSWERS TO END-OF-CHAPTER QUESTIONS Questions for Discussion: 1.

Use articles in trade publications which are available in the library or through on-line databases to explore factors contributing to the problems encountered in these ERP projects the timeframes are given so that you can find articles during the appropriate timeframes: . Fox Meyer Drug (project cancelled in 1996) b. Dow Chemical (project cancelled in 1998) c. Dell Computer (project cancelled in 1998) d. Hershey's (project in 1999 – 2000 timeframe) Possible resources: Jesitus, John.

“ Broken Promises? Fox Meyer's project was a disaster. Was the company too Aggressive or was it misled? ” Industry Week (1997): 31-37. Songini, Marc L. “ Halloween Less Haunting For Hershey This Year. ” Computerworld. Vol.

34 (45), pp. 13-14. Stedman, Craig. “ Failed ERP Gamble Haunts Hershey. ” Computerworld. Vol 33 (44), p.

1. Weiss, Todd R. , Songini, Marc L. Hershey Upgrades R/3 ERP System Without Hitches. ” Computerworld, Vol.

36(37), p. 25-28 2. Use articles in trade publications which are available in the library or through on-line databases to explore factors contributing to the successful implementation of ERP projects. In your analysis, include: a. Technology factors b.

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Project management factors c. User-related factors Possible resources:

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Motwani, J. , Mirchandani, D. , Madan, M. , and Gunasekaran, A. , “ Successful implementation of ERP projects,” Evidence from Two Case Studies,” International Journal of Production Economics, 75, nos 1-2 (January 2002), pp.

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” IFIP TC8 WGB8. International Working Conference on New Information Technology in Organizational Processes: Field Studies and Theoretical Reflections on the Future of Work. August 21-22, 1999, St. Louis, Missouri, USA. Ross, Jeanne, Vitale, Michael, Willcocks, Leslie, “ The Continuing ERP Revolution: Sustainable Lessons, New Modes of Delivery,” Second-Wave Enterprise Resource Planning Systems, ed. Graeme Shanks, Peter Seddon, and Leslie Willcocks, Cambridge University Press, 2003, pp.

102-132. Scott, Judy and Vessey, Iris, “ Managing Risks in Enterprise Systems Implementations,” Communications of the ACM, Vol. 5, No. 4, April 2002, pp 74-81. Sumner, Mary, “ Risk Factors in Managing Enterprise-wide/ERP Projects,” Journal of Information Technology, (2000) 15, 317-327.

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Willcocks, L. P. and Sykes, R. , “ The Role of the CIO and the IT Function in ERP,” Communications of the ACM 43, no. 4, 2000, pp.

22-28. 3. Using Microsoft Project, do the following: a. You will see a project management schedule for an ERP project below. This project management plan has been created using Microsoft Project.

See Figure 8-1: Project Management Plan b.

Create a project management schedule for an ERP selection decision using Microsoft Project. Use these parameters: I Create a list of software features which are needed 3 months B Create a list of ERP software candidates 3 months C Narrow choices down to 3 or 4 candidates 3 months D Develop a Request for Proposal 1 month E Participate in Vendor Presentations 3 months F Review Vendor Proposals 1 month G Evaluate and Select the Best Alternative 1 month H Negotiate for Pricing and Licensing Agreements 2 months I Develop implementation schedule 2 months

Note: Use an appropriate Microsoft Project tutorial to help students do this project. CHAPTER 9: SUPPLY CHAIN MANAGEMENT AND THE eMARKETPLACE CHAPTER OBJECTIVES 1. Understand the links in the supply chain from raw materials to the retail customer. 2.

Recognize the interrelationships among business processes supporting sales and marketing, production and materials management, and accounting and finance which exist in order to support the supply chain. 3. Recognize the role of ERP in supporting eBusiness applications. 4.

Understand how business intelligence tools are used decision analysis and management reporting. CHAPTER OUTLINE 9.

Supply Chain Management and the eMarketplace a. Supply Chain

Management 1. Impact of Supply Chain Management on Productivity 2. The Evolution of Partnerships b. eBusiness and ERP 1.

Introduction to eBusiness 2. Business-to-Business (B2B) Marketplaces in the Supply Chain 3. eSupply Chain and ERP 4. SAP's mySAP. com 5. Supplier Relationship Management: SAP's eProcurement c. Business Intelligence with ERP 1. Data warehouses 2. Data marts 3. Data mining 4.

Business Intelligence Vendors d. Future Directions for ERP 1. Increased Integration through the Supply Chain 2. Use of Shared Services and Application Service Providers 3. Application Software Integration e. Summary

ANSWERS TO END-OF-CHAPTER QUESTIONS Questions for Discussion: 1. How can an ERP system improve Supply Chain Management by enabling firms to participate in on-line marketplaces? Provide examples of: a. Linkages between suppliers and manufacturers. Proctor and Gamble (the supplier) links into Wal-Mart's point-of-sale system and decides when to re-supply Wal-Mart' inventory.

Auto manufacturers (Ford, GM) have on-line links to suppliers' order-entry systems. b. Linkages between customers and manufacturers. Auto manufacturers (BMW, etc.) provide customers with web-based, customized automobile configuration. c. Linkages between manufacturers and retailers. Hallmark (the manufacturer) uses a continuous replenishment system to ensure that retailers have the right products in stores. 2. Investigate the use

of data warehouse and data mining strategies in these industries by conducting on-line research in trade publications to find relevant examples. .

Banking Data warehousing strategies can help answer these questions: Who are the most profitable customers? What is the effectiveness of various marketing programs? Which customers are good prospects for a new service? Which customers can benefit by having a chance to lower their mortgage rates? b. Brokerage firms Data warehousing strategies can help answer these questions: Which customers are best prospects for credit card promotions? What credit limits should be established for various applicants? What services are customers most likely to be interested in?

What is the long-term value of various customers? c. Telecommunications service providers Data warehousing strategies can help answer these questions: How do we reduce “ churn” (switching carriers) due to poor service? How can we detect and fix poor service before customers complain?

3. How is the use of data warehousing and data mining facilitated by ERP? ERP databases provide the foundation for creating data warehouses. Specifically, data in the ERP database is used to create data extracts (copies of the database) which are used to create the data warehouse.

At regular intervals (daily, weekly, monthly), these data are refreshed based upon updates to the database. 4. How do ERP systems supporting Supply Chain Management and Customer Relationship Management provide a foundation for eBusiness? Supply chain management (SCM) deals with the interchange of data between the supplier and the manufacturer. Customer relationship management (CRM) deals with the interchange of data between

the manufacturer and the customer. ERP systems provide the “ shared data” which is needed to support these exchanges of data. 5.

What are the major risks of a netsourcing arrangement for ERP? What strategies can be used to minimize these risks? Major risks of a netsourcing venture from the viewpoint of potential customers are: Service and Business Stability, Security, Reliability, the Netsourcing Arrangement’s Longevity and Existence, and the Netsourcing Arrangement’s dependency on other parties. Major risks of netsourcing venture from the viewpoint of existing customers are: the Netsourcing Arrangement’s longevity and existence, Reliability, the Netsourcing provider’s service and business stability.

Security issues, and integrating the netsourcing solution with existing applications. Internal IT people should maintain responsibility for ERP development. In the process of migrating to the ERP system, it is important to retain internal technical expertise and troubleshooting capability. In post-contract operations of the netsourcing contract, internal IT capability must be maintained (Ross, Vitale, Willcocks, 2003). Cases: 1. Data Solutions Data Solutions is a company specializing in network implementation and management. It provides networking services to mid-sized companies, which o not have an internal networking analyst or IT manager. These organizations include real estate companies, law offices, medical practices, architectural/engineering firms, construction companies, business services providers, country clubs, community organizations, and churches. Data Solutions uses a legacy accounting system to handle its financial accounting and financial management functions. It has added on a billing package for

client services. The next step is to obtain a CRM capability to manage information about current and prospective customers more effectively.

Case Exercises You have been assigned to identify potential sources for a netsourcing arrangement with an ERP vendor, which provides CRM capability. a. Identify potential sources of the software. Ask students to conduct Internet searches to identify potential sources of CRM software via netsourcing arrangements. Students will be able to find detailed product information, including features, technical support, and demonstrations. Since software offerings vary so rapidly, it is best to let the students explore the possibilities. b. Identify three alternative providers.

Ask students to select three alternative netsourcing software providers. One rule of thumb is to select a high-end alternative (e. g. most expensive, most features), a mid-range alternative, and an inexpensive alternative. c. Determine five criteria you will recommend be used to evaluate each of these alternative providers. Ask students to identify at least five criteria to use to evaluate these alternatives. Examples of criteria are: price, availability of technical support, vendor reputation, product features, ease of use, maintenance agreements, licensing fees, upgrade capability, and system compatibility.

Students should try to locate articles describing and evaluating CRM software alternatives, using product evaluation sites and articles in trade publications, such as Information Week, PC Magazine, and industry-specific trade publications. They can search for articles using on-line library databases, such as ABI Inform, ProQuest, and First Search. d. Evaluate each of the alternatives with respect to the criteria for evaluation. There are a <https://assignbuster.com/case-study-instructional-notes/>

number of methods for evaluating alternative design options. Students should select three alternatives, including a “ high-end” alternative, a “ mid-range” alternative, and an inexpensive alternate.

Then they should list the advantages and disadvantages of each of these alternatives. There are many helpful resources which students can use to help evaluate these alternative design options. Articles in trade publications provide in-depth analysis of alternative software options and these articles can provide an objective review of each package, including expert analysis and user reviews. These software reviews in trade publications may identify the features which can be used to compare alternative software packages with each other. They may also score or rate each alternative software package with respect to each of these features.

Another method of analyzing alternative design options for the CRM software is to establish criteria for evaluating each package and rank each package with respect to the extent to which the package meets the minimum criteria.

- e. Make a recommendation to management.
2. Based upon the information they have collected, students can evaluate the alternatives and select the best option.

TechKnowledge TechKnowledge is a start-up founded in 1997 by Robert Thyer. The company is a distributor of presentation technologies, including computer-based projection systems, video equipment, and various display technologies.

The firm has 25 employees and does \$5 million in sales. It is growing rapidly. The owner, Robert Thyer, would like to netsource the back-office functions of the firm because the company does not have an internal IT capability. The applications to be netsourced would include: sales and distribution, financial

accounting, and inventory management. TechKnowledge would like to source SAP or another ERP vendor via a hosting arrangement. It does not expect to do much customization, and it does not have any legacy systems.

Case Exercise Investigate at least three netsourcing hosts for TechKnowledge to consider. . What factors should it use to evaluate each of these potential hosts? Ask students to read articles on netsourcing which they can locate via web-based information sources and on-line library databases (e. g. ABI Inform, ProQuest, First Search). These articles will describe the features of net-based software systems and services, and this information will provide the background needed to develop a list of criteria for evaluation. 2. What agreements need to be put into place in advance of implementing the hosting arrangement? This is a topic for further research.

Students can gain an understanding of net systems service agreements using textbooks, articles in on-line databases, and web-based information sites. 3. What controls should be put into place to monitor the hosting arrangement Some of the controls which should govern a successful netsourcing arrangement include: development of a service agreement which details the roles and responsibilities of the host and of the user organization and development of service performance measures on the part of the host. The arrangement needs to be continuously monitored using these performance measures.

In addition, it is important to maintain internal technical expertise, to provide end-user training, and to establish overall project leadership. 4. What IT capabilities should be developed and maintained in-house? Answers to these questions can also be gained through research using textbooks, articles in

on-line databases, and web-based information sites. Bandon Group, Inc. Case Instructor Notes: Information Systems Study Bandon Group, Inc. Documentation, Things to Do, Instructor Notes: StrategyDocumentationThings to DoInstructor Notes Purpose and Scope of Study Step 1)Purpose and scope of the MIS studyReview the purpose and scope of the study. Assign teams. Document High-Level Business Direction (Step 2)Executive Management InterviewsWrite a summary of major problems and opportunities defined by management. Focus on “ common” problems/opportunities. Ask each team to summarize the “ common” problems and opportunities among divisions. Identify Key Information Needs and Measures (Step 3)Matrix: Goals, Critical Success Factors, Measures, IT NeedsWrite a summary of “ common” or “ shared” CSFs, measures, IT needs. Ask each team to summarize the “ common” CSFs and IT needs among divisions.

Determine Detailed Business Requirements (Step 4)Interview findings: Problems, Goals/opportunities, IT needs, PrioritiesWrite a summary of “ common” or “ shared” priorities. Ask each team to report on the “ common” priorities among divisions. Document Current IT Situation—Internal (Step 5)IT infrastructure Evaluate the current IT infrastructure. Document Current IT Situation—External (Step 6)Collect information on what competitors are doing with IT. Review competitive dealer web sites to determine what web-based services are offered (service call entry, meter reading submission, supply ordering).

Note: Use vendor web sites to identify national dealers (e. g. Kyocera Mita, Canon, Minolta, Sharp). Students should be able to find links to company

web sites that market each of these vendors' digital imaging product lines. Determine Gap between Current IT Situation and Desired IT Direction (step 7)List of IT priorities Identify “ common” IT priorities among divisions by completing the chart. Ask teams to report on common IT priorities. Determine Feasibility of an ERP System (Step 8)Web-based resources on ERP and CRM; Articles in trade publications; Vendor resources.

See “ Further Notes” below. *Write a recommendation to address these questions: (1) Should Bandon Group pursue an ERP solution? (2) Should they pursue a CRM solution? and (3) In what order should they plan to acquire ERP? CRM? Identify the business benefits of (1) ERP; (2) CRM; and (3) an integrated ERP providing CRM capability. ERP Design Issues (Step 9)External research on ERP packages with integrated CRM capabilities (e. g. trade publications, vendor reports, Web-based materials)Evaluate alternative ERP and CRM packages for Bandon Group (e. g.

Microsoft Great Plains, SAP, etc.) and make a recommendation for a solution which will meet their needs. Investigate alternative “ mid-market” ERP and CRM solutions. Teams can use the selection criteria that were given in Chapter 3 in the exercise: “ Response to Request for Proposal for an ERP System. ” (Table 1: Selection Committee Score Sheet). *Further notes: One of the deterrents to obtaining an ERP system is the “ meter billing subsystem. ” The current software, OMD, supports meter-based billing, but most ERP systems do not support this functionality.

Meter-based billing in the copier industry is similar to meter-based billing in the utilities (e. g. gas, electric) industries. In most cases, customers obtain a contract for a certain number of copies per month, and their bill is based

upon this contract volume. To monitor usage, customers report their meter readings, and any overage (above contract volume) is additionally billed. The “ meter-based billing” system within OMD is adequate, but OMD is not an ERP system and cannot support add-on applications such as customer relationship management (CRM) and supply chain management (SCM).

In addition, web-based ERP applications are not available via OMD. If Bandon Group were to purchase a “ vanilla” ERP package, it would have to customize the ERP system to provide the meter-based billing functionality. This would entail a great deal of cost and effort, and this has been the major deterrent to purchasing an ERP system. Three alternatives which Bandon Group needs to investigate are: Maintaining the current legacy (OMD) system and acquiring a new CRM (customer relationship management) package.

In this alternative, data will need to be migrated from the legacy OMD database to the new CRM system. Acquiring an ERP system to support administrative functions. In this alternative, the meter-based billing application will need to be customized. A CRM system which is compatible with the ERP system can be acquired once the ERP system is up and running. Acquiring an ERP system to support administrative functions, and customizing the meter-based billing application. CRM capability can be purchased via a netsourcing application. Appendix Figure 2-2: New Process Model: Payment Processing System