Tutorial 2
Enterprise Systems
Suggested Solutions

Objectives:

- **Identify the basic activities and business objectives common to all transaction processing systems**
- **Describe the transaction processing systems associated with the order processing, purchasing, and accounting business functions**
- **Identify the basic functions performed and the benefits derived from the implementation of an enterprise resource planning system, customer resource management, and product lifecycle management system**
- **Identify the challenges that multinational corporations face in planning, building, and operating their enterprise systems**

1. What is an enterprise system? Identify and briefly discuss the goals of different types of enterprise systems.

   An enterprise system is central to individuals and organizations of all sizes and ensures that information can be shared across all business functions and all levels of management to support the running and managing of a business. Examples of enterprise systems include enterprise resource planning systems that support supply chain processes, such as order processing, inventory management, and purchasing, and customer relationship management systems that support sales, marketing, and customer service-related processes.

2. Identify and briefly discuss five challenges to the successful implementation of an enterprise system. Provide several tips to overcome these challenges.

Challenge	Description
Cost and disruption of upgrades	Most companies have other systems that must be integrated with the enterprise system, such as financial analysis programs, e-commerce operations, and other applications that communicate with suppliers, customers, distributors, and other business partners. This integration takes even more effort and time.
Cost and long implementation lead time	The average ERP implementation cost is $5.5 million with an average project duration of just over 14 months.
Difficulty in managing change	Companies often must radically change how they operate to conform to the enterprise work processes. These changes can be so drastic to longtime employees that they depart rather than adapt to the change, leaving the firm short of experienced

	workers.
Management of software customization	The base enterprise system may need to be modified to meet mandatory business requirements. This modification can become extremely expensive and further delay implementation.
User frustration with the new system	Effective use of an enterprise system requires changes in work processes and in the details of how work gets done. Many users initially balk at these changes and require much training and encouragement.

The following list provides tips for avoiding many common causes for failed enterprise system implementations:

- Assign a full-time executive to manage the project.
- Appoint an experienced, independent resource to provide project oversight and to verify and validate system performance.
- Allow sufficient time for transition from the old way of doing things to the new system and new processes.
- Plan to spend considerable time and money training people; many project managers recommend that 30–60 days per employee be budgeted for training of personnel.
- Define metrics to assess project progress and to identify project-related risks.
- Keep the scope of the project well defined and contained to essential business processes.
- Be wary of modifying the enterprise system software to conform to your firm's business practices.

3. Assume that you are the owner of a small bicycle sales and repair shop serving hundreds of customers in your area. Identify the kinds of customer information you would like your firm's CRM to capture. How might this information be used to provide better service or increase revenue? Identify where or how you might capture this data?

Student response will vary. The CRM system could capture:

- Inventory
- Number of sales
- Registration data
- Warranty information
- Service history
- Who repaired the bike
- Parts ordered/replaced
- Owner information
- Customer inquiries

This information could help to anticipate the needs of customers, provide better service, reduce costs, and improve efficiency.

4. Case Study: From Stand-Alone to Integrated Applications

YIOULA Group is the largest glass manufacturer in the Balkan, producing over 625,000 glass containers annually as well as over 30,000 tons of tableware. Starting in the 1990s in Greece, the company expanded by acquiring other glassmaking forms in Romania, Bulgaria and Ukraine. The company has 7 factories in 4 countries, about 2,100 employees, and net annual sales of about €180 million (about AUD$280 million).

As a result of its growth through acquisition, YIOULA Group found itself with a confusing variety of information systems. The group was unable to compare production costs for the same item across factories, could not improve efficiencies by coordinating purchasing and financial management across its plants, and was not positioned for continued growth or expansion into new market areas. Clearly, its legacy stand-alone applications needed to be replaced.

YIOULA Group CIO Zacharias Maridakis had previous experience using integrated enterprise software when he worked at Mobil Oil's Greek subsidiary, Mobil Oil Hellas S.A., in the 1990s. Therefore he was well acquainted with the advantages of the software. Under his direction, YIOULA Group investigated various software packages. They selected JD Edwards EnterpriseOne, named for a company that had become part of Oracle Corporation in 2005. Part of the reason for this choice was that most other ERP packages, including the SAP software with which Maridakis had worked at Mobil, are designed primarily for much larger organisations. EnterpriseOne was always intended to medium-sized firms.

Because YIOULA Group had little experience with EnterpriseOne, it enlisted the help of Oracle partner Softecon to help configure the software to the company's needs, meet the legal requirements of each region in which it operates, and manage implementation in each area. Support for the Greek language (as well as English and 18 others) is a standard JD Edwards EnterpriseOne capability available from Oracle; Softecon added the other languages that YIOULA Group needed to the user interface. YIOULA Group also added a specialised cost comparison module from Softecon to the basic EnterpriseOne package. This module helps the group choose the lowest cost facility to manufacture a product.

The conversion to a single enterprise package gave YIOULA Group the expected benefits. Times from order to invoice, delivery time, and cash collection have all been accelerated. Financial data is now available two weeks after the end of a period versus one month previously. A consolidated view of inventory across all plants has enabled the group to manage inventory more efficiently and comprehensively and to use just-in-time purchasing methods.

Perhaps even more importantly, YIOULA Group is now positioned to grow. As Maridakis puts it, "Oracle's JD Edwards EnterpriseOne is a key enabler of our strategy to enhance market leadership in the Balkans, grow our business in the Ukraine, and continue to improve productivity, efficiency, and profitability as we expand into new markets."

Discussion Questions

1. What problems had the YIOULA Group's stand-alone legacy software created for the company?

   The group was unable to compare production costs for the same item across factories, could not improve efficiencies by coordinating purchasing and financial management across all its plants, and was not positioned for continued growth or expansion into new market areas.

2. What are the advantages of ERP systems over stand-alone software packages?

   The primary benefits of implementing ERP include improved access to quality data for operational decision-making, elimination of inefficient or outdated systems, improvement of work processes, and technology standardization.

3. What immediate and long-term needs did EnterpriseOne fill for the YIOULA Group?

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4. The YIOULA Group adopted a general ERP system that was not industry specific. What are the advantages and disadvantages of general ERP systems and industry specific systems?

   Because the ERP system was not industry specific, the YIOULA group was able to configure the software to the company's needs, meet the legal requirements of each region in which it operates, and manage implementation in each area.