

### **Application Development Processes: Internal & External**

Application development processes use internal and external resources. Discover the different types of sourcing including insourcing, self-sourcing, outsourcing, and co-sourcing and their advantages and disadvantages.

# Sourcing

An important decision in system development is to determine who is going to actually develop and implement the system. Sourcing indicates who is responsible for building the system. There are a number of different types of sourcing:

- Insourcing using information technology resources within the organization
- Self-sourcing using employees with specialized knowledge within the organization
- Outsourcing using another organization
- Co-sourcing using a combination of resources from within the organization and from a third party

For relatively small and simple systems, both insourcing and self-sourcing are widely used. Outsourcing is very common for large and more complicated systems, which may require resources and expertise not available within the organization.

# Insourcing

**Insourcing** consists of using resources within an organization. In the case of systems development, that would mean using resources from the information technology, or IT, department. For example, if a sales department wants to implement a customer relationship manager, they could ask the IT department to do this for them.

Insourcing is a widely used method for system development because it is often a relatively cheap solution, and it does not require hiring additional contractors. However, the tasks will add to the workload of the IT staff, and some specialist tasks may fall outside of their expertise.

# **Self-Sourcing**

**Self-sourcing** is the development of systems by employees with specialized knowledge with limited or no help from information technology (IT) specialists. For example, a sales department may decide to develop its own customer relationship management system instead of asking the IT staff or an outside organization to do this for them.

The primary advantages are that it improves the participation of staff and provides a sense of ownership. It may also reduce costs. One of the key disadvantages is that staff members may lack the IT expertise to implement a well-developed system. It may also lead to technically inferior systems that are difficult to maintain and integrate with other systems within the organization.

# Outsourcing

**Outsourcing** involves contracting a business function to an outside party. Typically, this involves some sort of contract that determines the type of service, cost and time period.

There are a number of possible advantages of outsourcing:

- Costs are more predictable and may be reduced
- Focus on unique competencies of a third party
- Limited additional workload on existing staff

Some of the potential disadvantages are:

- Reduces control over the development process
- Limits opportunities for increasing technical know-how within the organization
- Increases dependency on other organizations
- Increases vulnerability of strategic information

There are many companies providing outsourcing services. Systems development often requires highly specialized expertise in a number of different areas, including the analysis of business processes, systems design and coding. A consulting company may provide one or more of these services, with some companies providing customized solutions to cover all aspects of system development.

The widespread availability of the Internet and the increasing use of cloud computing has made it possible for consulting companies to provide services remotely. Some of the world's largest outsourcing companies are located in countries such as India and the Philippines where skilled labor in the information technology sector is very cost competitive.

One of the world's largest and most respected outsourcing firms is IBM. Originally a company developed around computer hardware systems, its primary focus has shifted to providing services all over the globe in the area of system development.

# **Co-Sourcing**

**Co-sourcing** consists of a combination of services provided by employees within an organization and also by an outside party. In the case of systems development, staff of the organization may be responsible for overseeing the entire life cycle of a project but contract out certain elements for

which the organization lacks expertise and staff members. The development of a system becomes a shared responsibility between the organization and one or more third parties. Carefully written contractual agreements are necessary to make sure each party knows its role and responsibilities.

# **Lesson Summary**

In summary, sourcing indicates who is responsible for system development. There are different types of sourcing, which vary in their use of internal and external resources. Insourcing consists of using resources within an organization. Self-sourcing is the development of systems by employees with specialized knowledge with limited or no help from information technology (IT) specialists. Outsourcing involves contracting a business function to an outside party. Outsourcing in particular has become popular for system development. Co-sourcing consists of a combination of services provided by employees within an organization and also by an outside party.

# **Learning Outcomes**

You will have the ability to do the following after watching this video lesson:

- Describe what sourcing is
- Explain the different types of sourcing based on the use of internal and external resources
- Identify the advantages and disadvantages of each type of sourcing



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