Enterprise Resource Planning – the Backbone of E-Business

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Many e-business applications are integrated into cross-functional enterprise application clusters like enterprise resource planning, customer relationship management, supply chain management, selling chain management or decision support.
Integration of the enterprise has emerged as a critical issue for organizations in all business sectors striving to maintain competitive advantage.
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Integration is the key to success, to unlocking information and making it available to any user, anywhere and anytime. Many organizations are using today information and communication technology to develop integrated cross-functional enterprise systems that cross the boundaries of the traditional business and organization functions (like marketing, accounting or finance). The main goal of this tactic is that to reengineer and improve vital business processes all across the enterprise. Such an organizations view cross-functional enterprise systems as a strategic way to use information and communication technology to share information resources and improve the efficiency and effectiveness of business process for helping e-business strategic objectives (figure 1).

Enterprise resource planning is a cross-functional enterprise system that serves as a framework to integrate and automate many of the e-business processes that must be accomplished within the manufacturing, logistics, distribution, accounting, finance and human resources functions of a business.

Once the organization has a clear view of how information and communication technology can support the business, we can use that view to identify specific areas of opportunity or need within the business. Two key areas are business processes and information needs, both of which information and communication technology can support. The identification of processes and information needs can be performed together or individually in systems planning. Either way, both consider how information and communication technology supports the business and both result in a preliminary list of the information and communication technology systems the organization needs.

The business processes within the organization are simply the groups of activities that we use to accomplish the organization's work. Today, many of these processes require information and communications technology systems support.

One method of identifying specific processes that require information and communication technology support is the value chain method. This method examines how the organization adds value to its products and services. More specifically we can see which business processes either add or reduce value for the customer.

The value chain method for e-business
Once we have a general view of how information and communication technology can support the e-business is important that we reinforce this view by ensuring technological support for all important business processes. The value chain method views the organization as a series of processes, each of which adds value to the product or service for the client. Customers patronize the organization because they add the value.
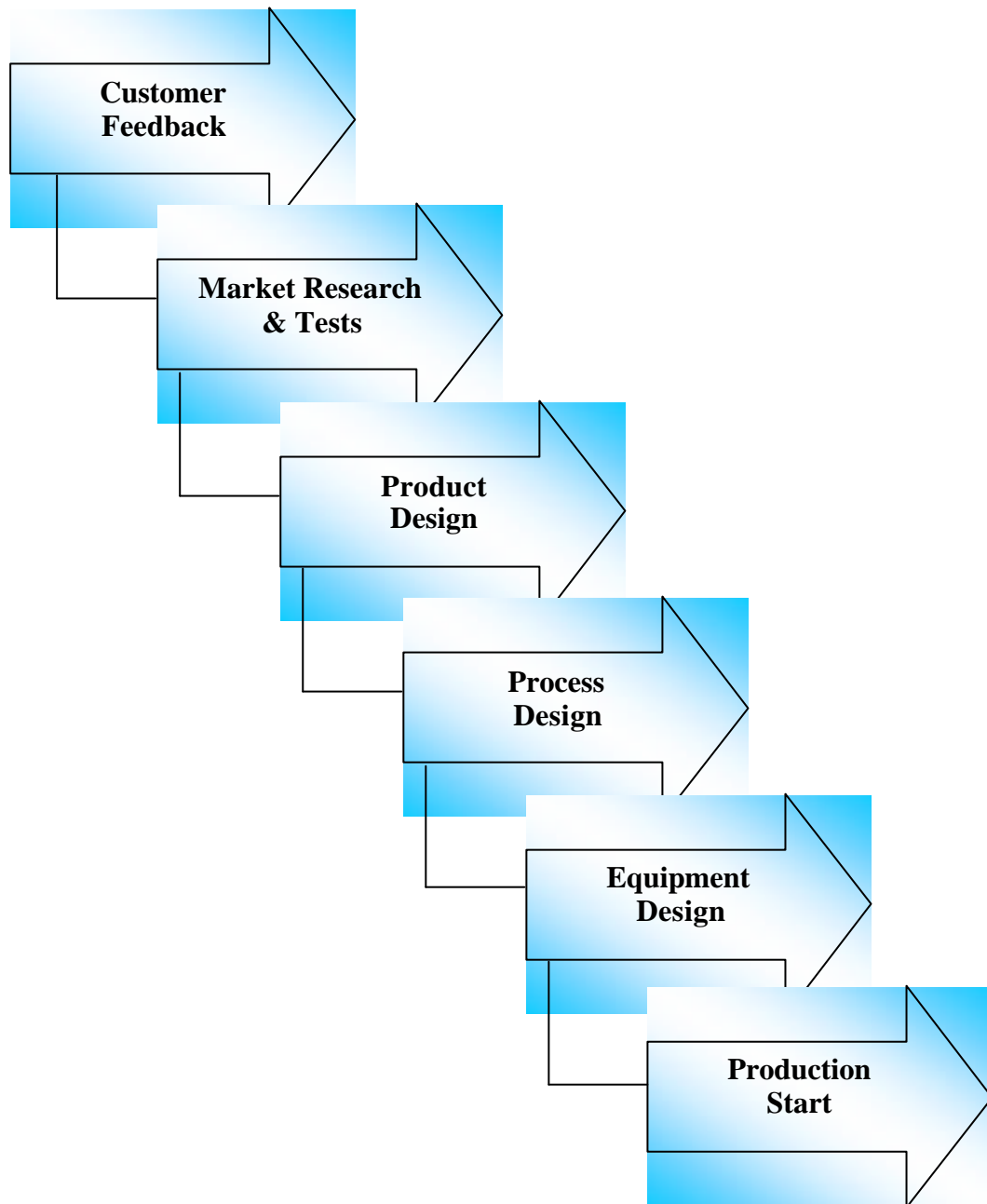
Fig. 1. The new product development process for e-business

If we view the organization as a value chain, we can also identify the important processes in adding value for customers and identify information and communication system that support those processes.

Figure 2 depicts the components of value chain. The chain of primary value processes along the bottom half takes the raw materials and makes, delivers, markets and sells and services the organization's products or services.

Processes along the top half of the chain such as management, accounting, finance, legal, human resources, research, development and purchasing support the primary value processes. The organization requires these support value processes to ensure the smooth operation of the primary value processes. All value chain processes have an individual value. These processes, combined in most organizations have a total value greater than the sum of their individual value. This additional value is called value-added.

The value chain is composed of primary value and support value processes. From

left to right and along the bottom half of the chain, the organization creates its product or service through primary value processes. Greater value-added means a competitive advantage and greater profits.
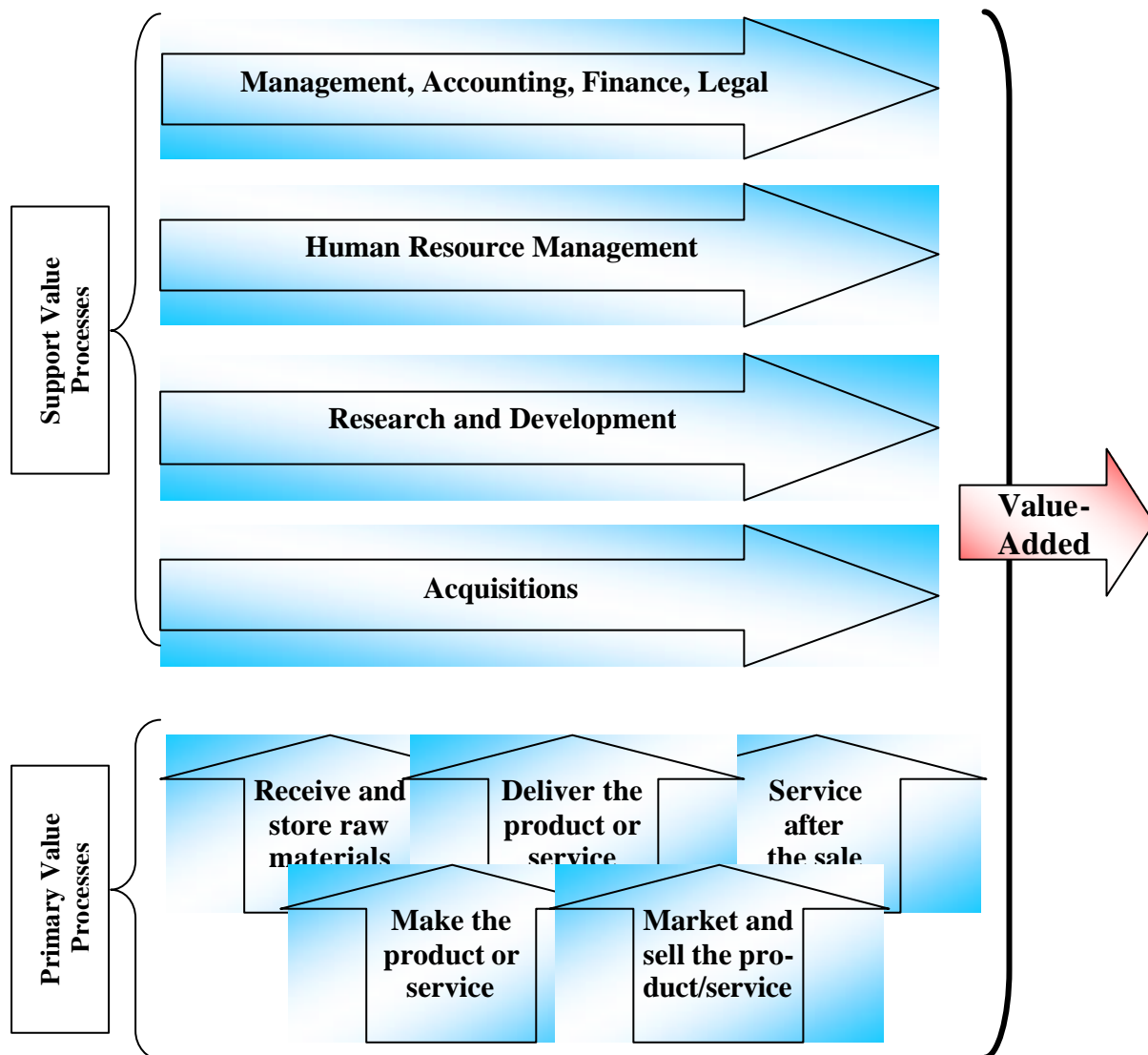

Fig. 2. The components of a value chain in organization

In this context, many organizations began installing enterprise resource planning systems as a vital conceptual foundation for reengineering their business processes and as the software engine required to accomplish these new cross-functional processes. *"Now the enterprise resource planning is being recognized as a necessary ingredient for the efficiency, agility and responsiveness to customers and suppliers that an e-business enterprise needs to succeed in the dynamic world of information society."* [O'Brien]

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