

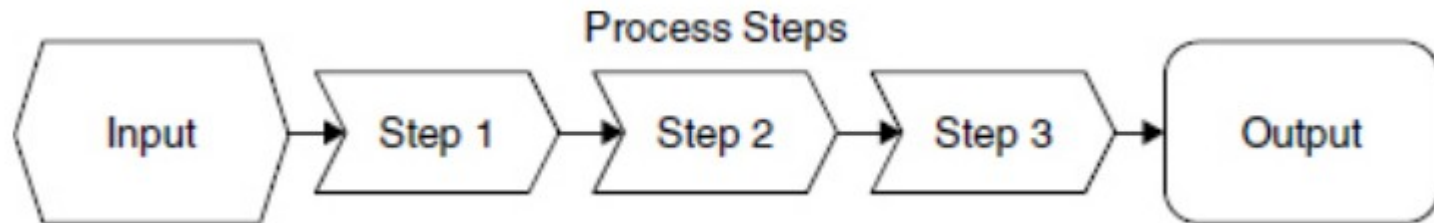
Chapter 1:

Business Process and Information System

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Organization Process

- Organizations create and deliver value in the form of a ***product or service***, which they offer to consumers or to other organizations.
- A product or service is created through a business process.
 - **Business Process** is a sequence of tasks or activities that take a set of inputs and convert them into the desired output.



Business Process : Examples



Figure 1.2 Procurement process

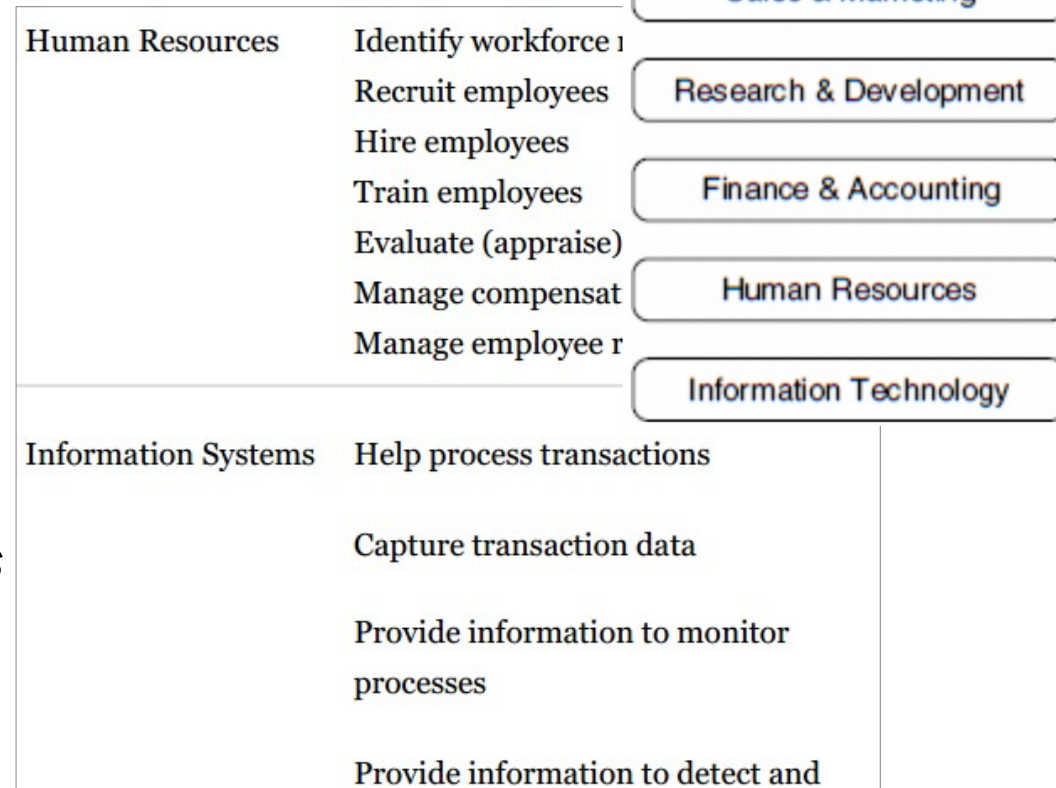


Figure 1.3 Fulfillment process

- ***In reality, business processes are complex, and they differ among companies and industries.***
- ***What about a Production Process ?***

Functional Structure of an Org².

- Organizations are ***divided into functions***, or inter-related departments.
- This structure involves the principles of ***division of labor*** and ***specialization***.
- Business processes are ***cross functional*** i.e. they rely on more than a functional group.
- Functional structure includes ***rules and procedures*** to help manage organizations.



The Silo Effect

- People in different functional areas perform their steps ***in isolation***, without understanding what steps happen before and what next.
- "By focusing narrowly on specific tasks, they ***lose sight of the big picture*** of the larger process" is referred to as the ***Silo Effect***.
- Key Point : *The silo nature of the functional organizational structure and the cross-functional nature of processes are at odds with each other.*
- Challenge : *To effectively coordinate the activities among the different functions or departments.*
- Solution : *To exchange information efficiently and effectively.*

Pictures of Silos



Ancient Greek vases
shaped as silos



8' diameter by 150 feet silo bag silo



Steel grain silos

Delays in Execution

- Caused by the time it takes to ***exchange information*** among different parts of the process.
- Two types of delays: -
 - Lead time delay
 - (e.g., how far in advance a company must plan to obtain raw materials from its suppliers)
 - Cycle time delay
 - (e.g., the amount of time needed to produce a product or process a customer order)
- Manual process further increases delay

more reasons for Poor Co-ordination

- Excess Inventory
 - *{Read the Case : Cisco Systems}*
- Lack of Visibility Across Processes
 - *{Read the Case : Nike}*
- To overcome these problems, organizations must **break out of silos** and focus on processes.
- Need to substitute a **process view** for the traditional functional view.
 - *{Read the Case : Dell}*

Global Business Environment

- The ***big picture*** of modern business environment contains
 - Global competition
 - Information revolution
 - knowledge worker
- They have major impacts on the global business and will continue to have in foreseeable future

Global Competition

- More often,
 - the product is ***designed*** in one country,
 - the parts to make the product are ***produced*** in several countries,
 - the product is ***assembled*** in another country, and
 - ***service*** and ***support*** for the product are provided by people in yet another country.
- organizations have relocated parts of their operations to places outside their home countries to take advantage of unique business efficiencies e.g.
 - companies have moved ***manufacturing*** to places where ***labor is less expensive***,
 - they have transferred ***research*** and development to locations that offer an abundant supply of ***highly educated scientists and engineers***
- Increased global competition puts pressure on companies to be ***more efficient and productive***

Information Revolution

- Organizations should develop ***strategies to integrate their operations***, which can be distributed across many different geographic locations.
 - Hence, Information Revolution is required.
- Information Revolution is "increased use of information and communication technology to ***create, deliver, and use*** information."
- ICT helps organizations to ***globalize their operations*** by enabling them to ***coordinate business processes*** that are performed around the world.

Knowledge Workers

- Use ICT to create, acquire, process, synthesize, disseminate, analyze, and use information to be **more productive**.
- Perform work that often requires both
 - **structured information** (well defined, and its source is known) and
 - **unstructured information** (not well defined or not readily available)
- Knowledge work is typically **non-routine** in that it is not repeated throughout the course of the workday or workweek. *(note: task workers perform routine works)*
- knowledge workers must have a **thorough understanding of the business processes** that occur across different areas of the company.
- Knowledge workers are **employed in all parts** of an organization.
- Point to Ponder : You will be a knowledge worker at some point in your career.
 - you must develop the skills to find and use the information you need rather than rely on others to find it for you

Knowledge Workers : Attributes

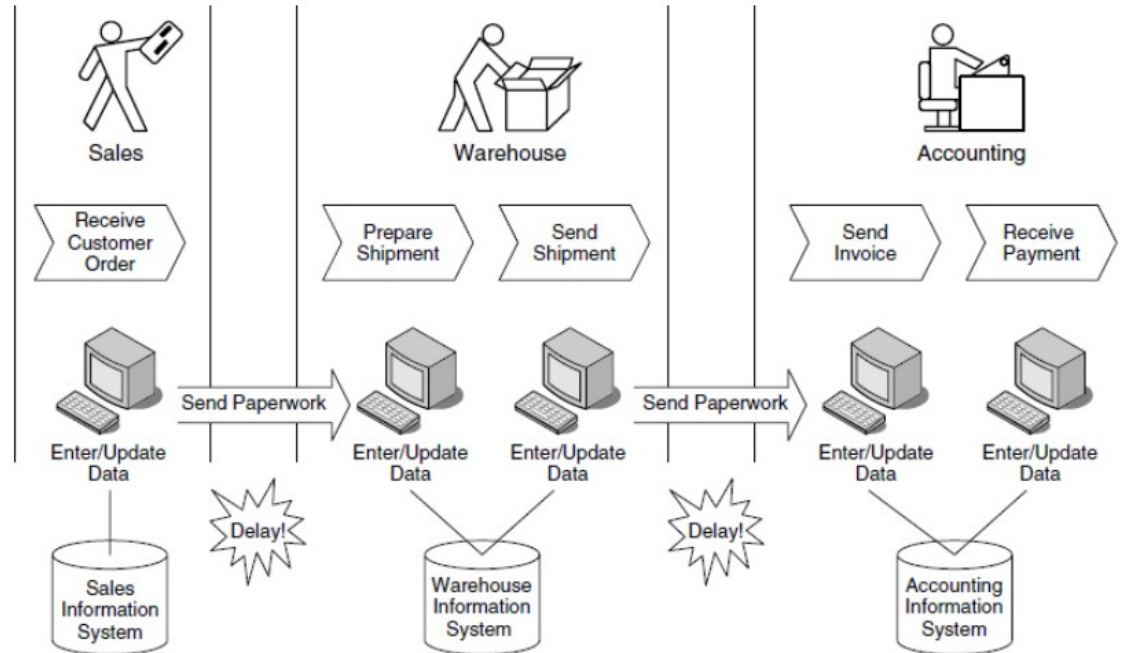
- Strategic Thinking
 - ability to **see the big picture** and understand how your organization works as a whole.
- Information Literacy
 - ability to **determine what** information is needed, **where** to find it, and **how** to use it.
- Communication and Collaboration
 - ability to **function as an effective part** of a project team where you understand your role as well as the roles of others.

Importance of Information Systems

- Business processes span multiple departments ***across companies***—and across ***multiple countries***.
- These processes cannot be managed manually; ***ICT is an essential part of the process view*** of organizations.
- A class of ICT, known as ***enterprise systems*** (ES) or ***enterprise resource planning*** (ERP) systems, is essential to managing business processes.
- ***SAP*** introduced the first integrated enterprise systems.

Functional Information Systems

- Most information systems **focus on functions** rather than processes and are not well integrated i.e. they **do not share data and information** with one another.
- Systems in organizations have evolved over the years **in isolation** i.e. exchanging information among them is either **difficult** or exchanged **manually**.



Bibliography

- Jeffery & R. Simha, Essentials of Business Process and Information Systems