


MANAGEMENT INFORMATION SYSTEM MIS

Chapter One INTRODUCTION TO MIS

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CHAPTER QUESTIONS

- 1. Define data, information, knowledge, information systems and management information systems expert systems.*
 - 2. What do we need to design an expert system?*
 - 3. What are the two types of people using MIS?*
 - 4. Explain the purposes of transforming data to information?*
 - 5. Why businesses transforming to Information Systems?*
 - 6. What are the activities to produce required information?*
 - 7. What are the advantages of IS organization's?*
 - 8. Explain the Managerial Roles and decisions vary at different level of the organization.*
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9. *Explain the Dimensions (boarders) of IS?*
10. *Make an Interdependence Between Organizations and Information Technology*
11. *What are the benefits of Information system in business?*
12. *Draw a Socio technical Perspective on Information Systems*



Data: Data are raw facts and figures that on their own have no meaning, these can be any alphanumeric characters i.e. text, numbers, symbols.

3423, 585465, 10054.....

None of the above data sets have any meaning until they are given a **CONTEXT** and **PROCESSED** into a useable form

- **Information:** Data that has been processed within a context or form to give it meaning.
- **Knowledge:** is the understanding of rules needed to interpret information and the capability of understanding the relationship between pieces of information and what to actually do with the information.



DATA & INFORMATION

331 Brite Dish Soap 1.29
863 BL Hill Coffee 4.69
173 Meow Cat .79
331 Brite Dish Soap 1.29
663 Country Ham 3.29
524 Fiery Mustard 1.49
113 Ginger Root .85
331 Brite Dish Soap 1.29
⋮

Data

Sales Region: Northwest
Store: Superstore #122

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>UNITS SOLD</u>
331	Brite Dish Soap	7156

YTD SALES
\$ 9,231.24

Information

- **Information Systems**: is a system composed of people and computers that processes and interprets information or software used to run a computerized database.
- **Management Information Systems (MIS)**: is the study of people, technology, organizations and the relationships among them.
- **Expert Systems**: Is part of a general category of computer applications known as artificial intelligence.



WHY DO PEOPLE NEED INFORMATION?

- Individuals - Entertainment and enlightenment
- Businesses - Decision making, problem solving and control



WHAT IS A SYSTEM?

1. **System:** A set of components that work together to achieve a common goal
2. **Subsystem:** One part of a system where the products of more than one system are combined to reach an ultimate goal



TYPES OF SYSTEMS

1. **Closed system:** Stand-alone system that has no contact with other systems
2. **Open system:** System that interfaces with other systems



We need to design an expert system

- Knowledge engineer.
- Individual who studies how human experts make decisions?
- Translates the rules and terms that a computer can understand.



Two types of people using MIS

- **1. MIS professionals:** help firms realize maximum benefit from investment in personnel, equipment, and business processes
- **2. MIS end-users:** people-oriented field with an emphasis on service through technology.

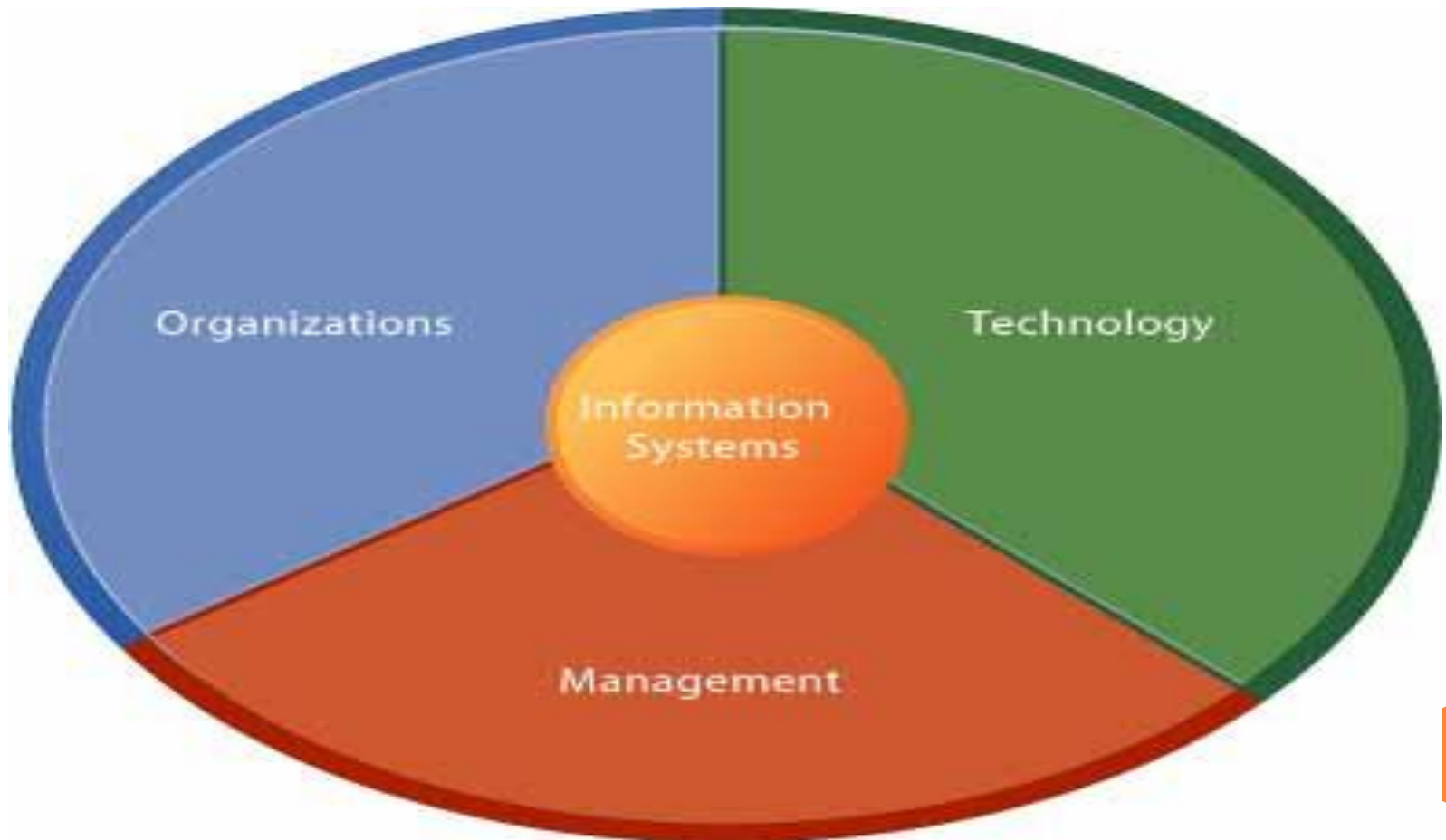


FOUNDATION OF DOING BUSINESS

- Most businesses today could not function without extensive use of information systems and technologies.
- Information Technology (IT) can increase market share.
- IT can help a business become a high-quality, low-cost producer.



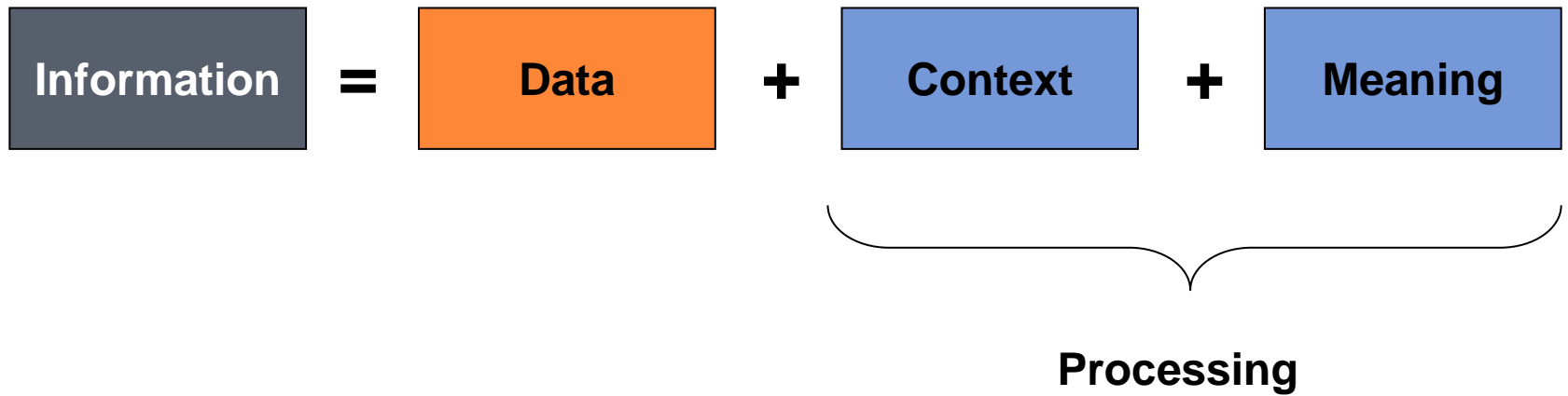
INFORMATION SYSTEMS ARE MORE THAN COMPUTERS



The purposes of transforming data to information

1. To achieve its aims the organization will need to process data into information.
2. Data needs to be turned into meaningful information and presented in its most useful format.
3. Data must be processed in a context in order to give it meaning.





Why businesses transforming to Information Systems?

- Increased responsiveness to customer demands.
- Shifts in media and advertising and commerce.
- New federal security and accounting laws required.
- Increased technology investments.
- Information Systems provide economic value to business.

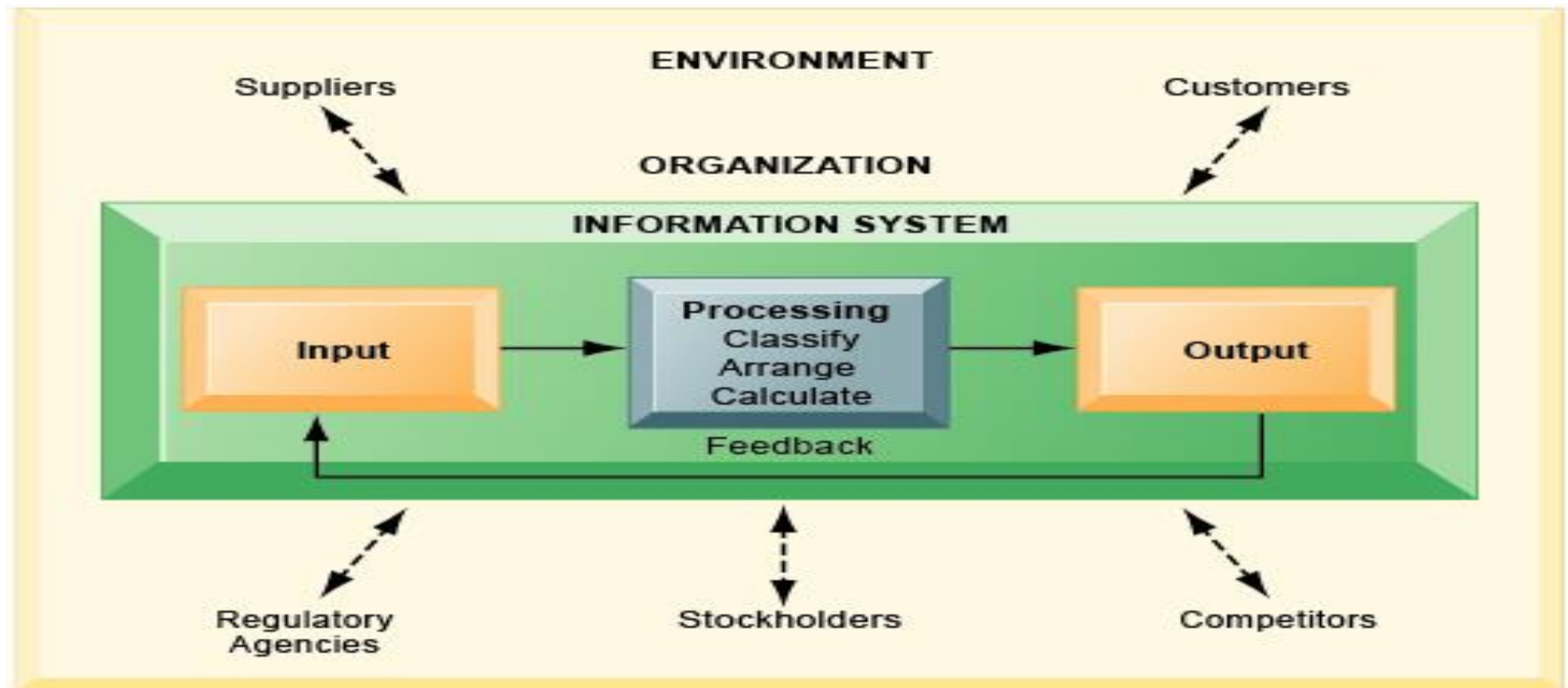


The activities to produce required information

- **Input:** Captures raw data from organization or external environment.
- **Processing:** Converts data into meaningful form.
- **Output:** Transfers processed information to people or activities that use it.
- **Feedback:** Output returned to appropriate members of organization to help evaluate or correct input stage.



Functions of an Information System



Advantages of IS organization's

- Most businesses today could not function without extensive use of information systems and technologies.
- Information Technology (IT) can increase market share.
- IT can help a business become a high-quality, low-cost producer.



The Managerial Roles and decisions vary at different level of the organization.

- Top managers: make long-range strategic decisions about what products and services to produce.
- Middle managers: carry out the programs and plans of senior management.
- First level managers: are responsible for monitoring the firm's daily activities.

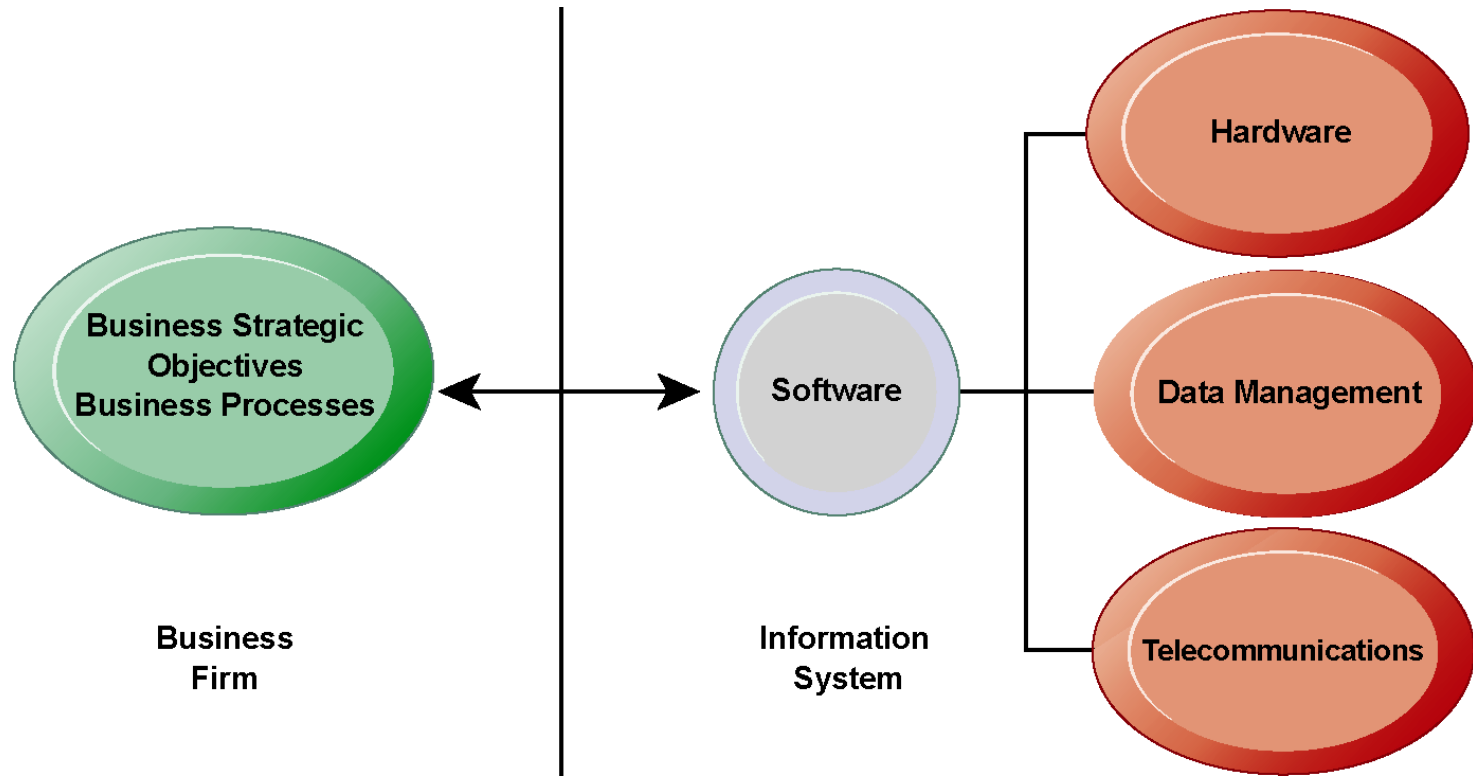


Explain the Dimensions (boarders) of IS?

- Understanding of IS dimensions is (IS) literacy.
- Where computer literacy is focus on primarily on knowledge of IT.
- MIS try to achieve this boarders, deals with behavioral and technical issues environment development, use and impact of IS in the firm.



DRAW THE INTERDEPENDENCE BETWEEN ORGANIZATIONS AND INFORMATION TECHNOLOGY

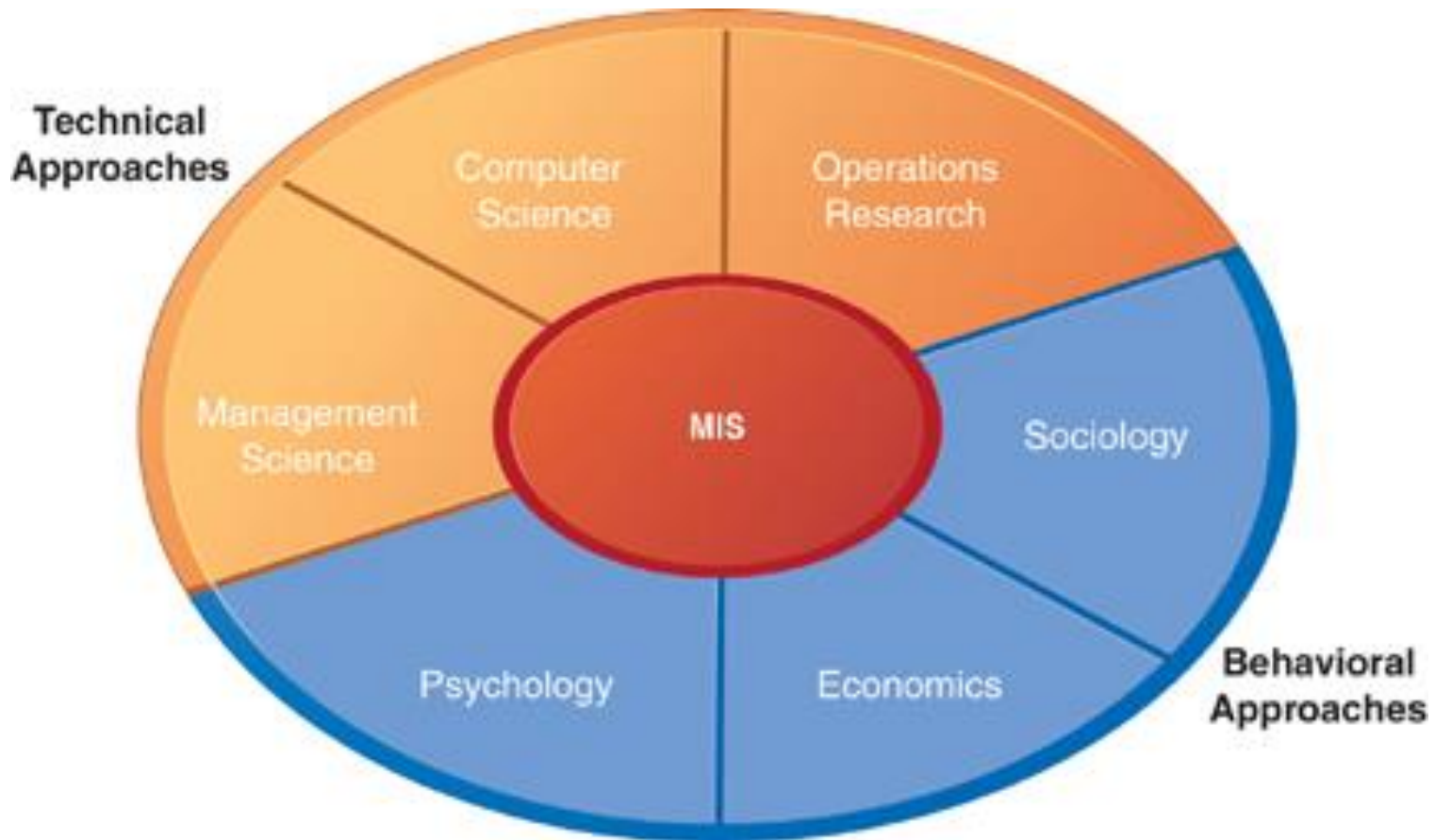


WHAT ARE THE BENEFITS OF INFORMATION SYSTEM IN BUSINESS?

- Set of interrelated components
- Collect, process, store, and distribute information
- Support decision making, coordination, control and problem analysis.
- Provide solutions to challenges in business.



DRAW THE CONTEMPORARY APPROACHES TO INFORMATION SYSTEMS



TECHNICAL APPROACH CONSIST OF WHAT?

Technical approach

1. Computer Science: theories of information commutation ,data storage
2. Management Science: models of DM and practices
3. Operations Research: optimization selected parameters of organization.



BEHAVIOURAL APPROACH CONSIST OF WHAT?

Behavioral approach:

1. Psychology: how decision makers use formal information
2. Economics: how IS change the control and cost structures
3. Sociology: how system affect individuals and groups



WHAT ARE COMPONENTS OF MIS?

- 1) Marketing Research System (**MRS**)
- 2) Marketing Intelligence System (**MIS**)
- 3) Internal Record System (**IRS**)
- 4) Decision Support System (**DSS**)
- 5) Group Decision Support System (**GDSS**)

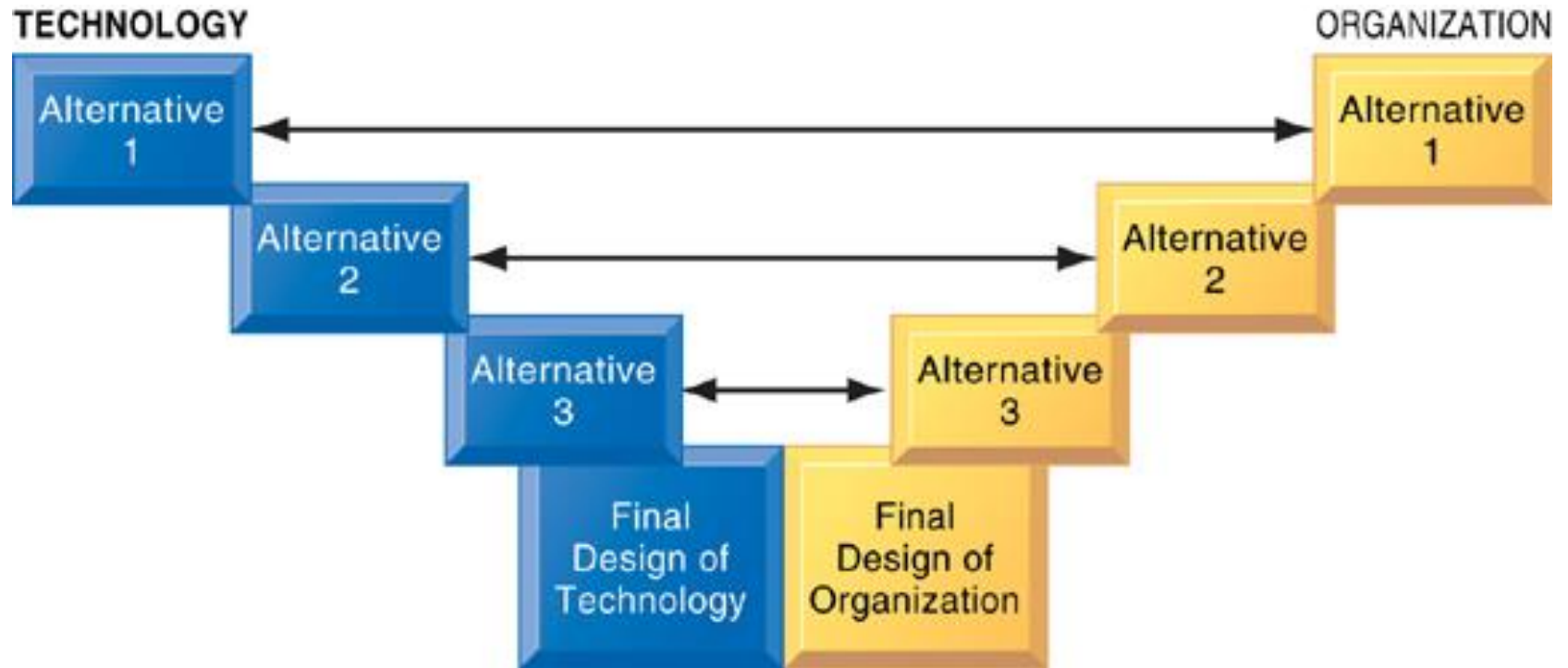


DEFINE A SOCIO TECHNICAL PERSPECTIVE ON INFORMATION SYSTEMS

- socio technical perspective: is the performance of a system is optimized when both the technology and the organization mutually adjust to one another until a satisfactory fit is obtained.



DRAW A SOCIO TECHNICAL PERSPECTIVE ON INFORMATION SYSTEMS GRAPH



EXPLAIN THE DIFFERENCES OF EFFECTIVENESS & EFFICIENCY IN MIS

- **Effectiveness in MIS** : achieved output / expected output
- **Efficiency in MIS**: achieved output / consumed input



WHAT IS THE AIM OF MANAGEMENT INFORMATION SYSTEMS

The main aim of MIS is to inform management and help them make informed decisions about management and the way the business is run.



**THE END
GOOD LUCK**

