Operations Strategy; Building a Sustainable Competitive Advantage

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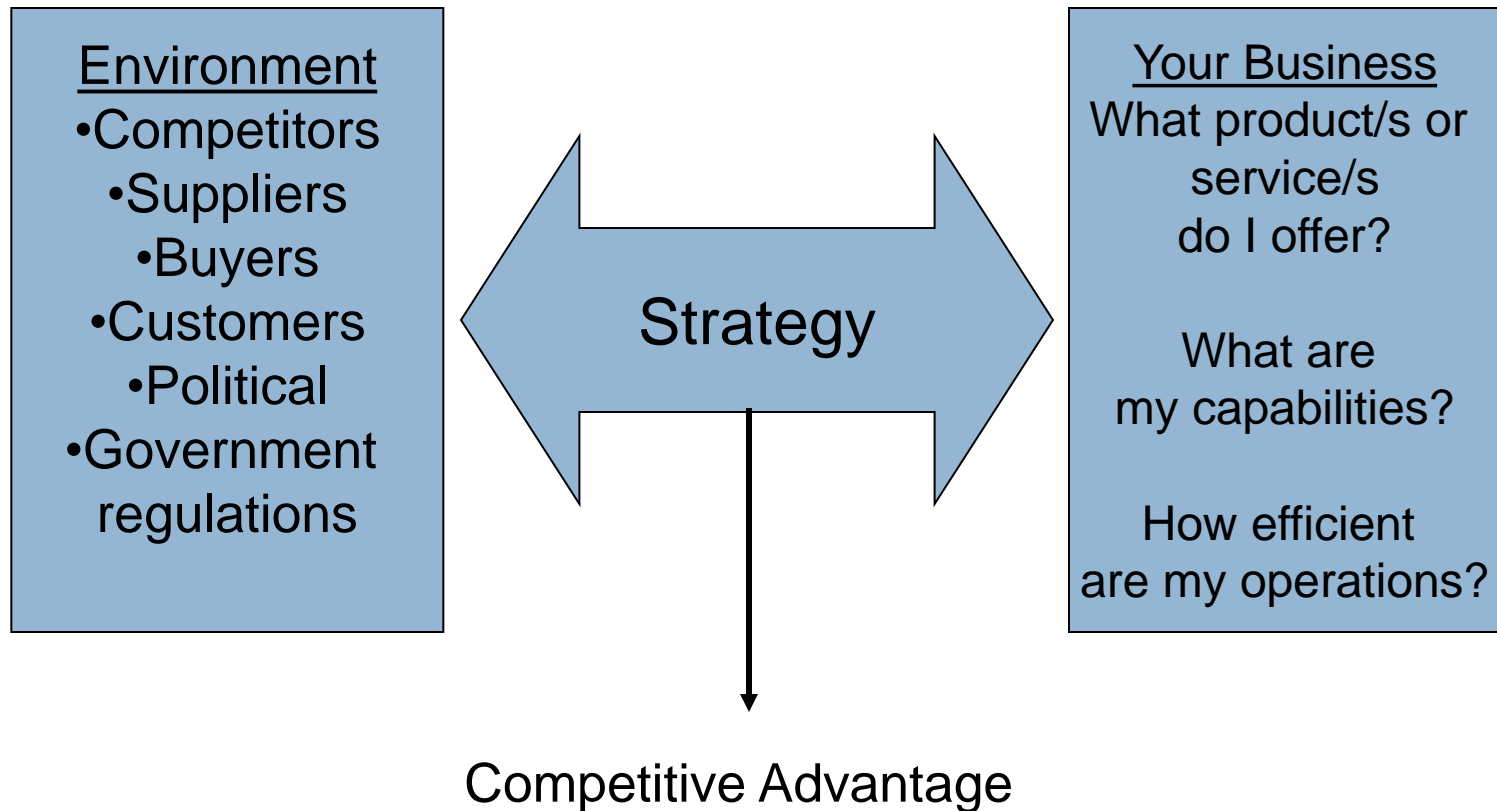**Faculty of Management Technology**
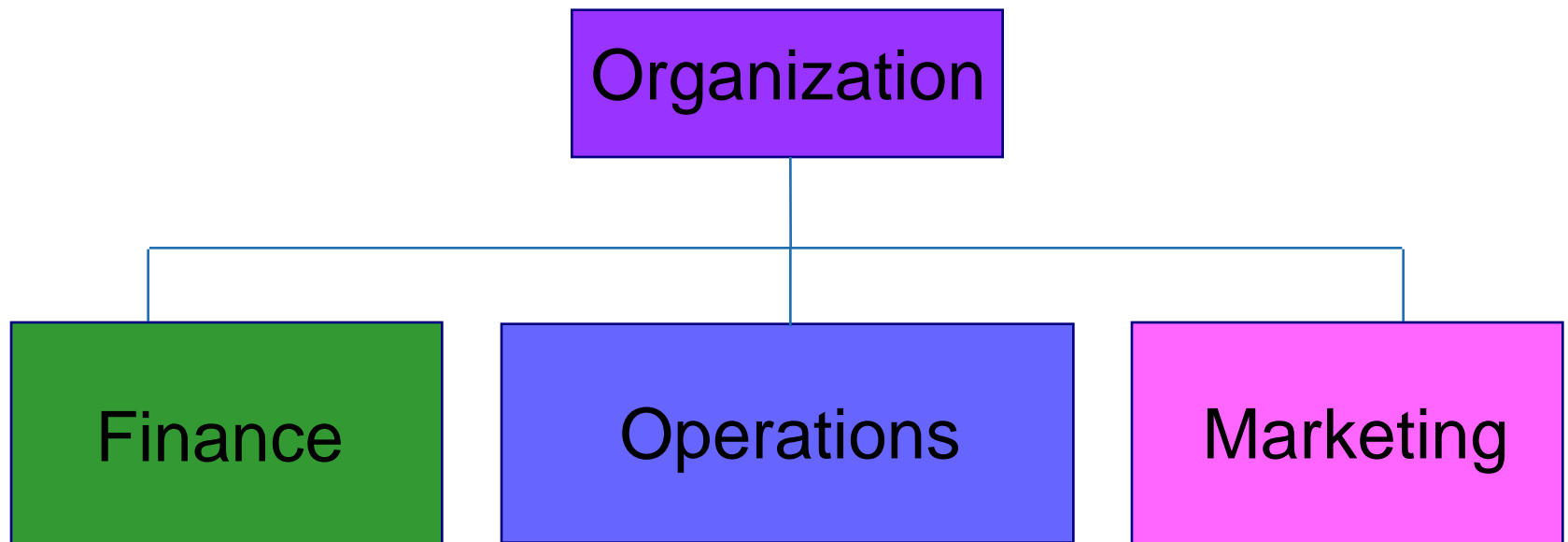**The German University in Cairo**
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INNOVETY
unleash your innovation

Linking your Company to the Environment

Environment
- Competitors
- Suppliers
- Buyers
- Customers
- Political
- Government regulations

Strategy

Your Business
What product/s or service/s
do I offer?

What are
my capabilities?

How efficient
are my operations?

Competitive Advantage

The Three Basic Functions

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              ┌──────────────────┐
              │   Organization   │
              └──────────────────┘
                       │
       ┌───────────────┼───────────────┐
┌──────────────┐ ┌──────────────┐ ┌──────────────┐
│   Finance    │ │  Operations  │ │  Marketing   │
└──────────────┘ └──────────────┘ └──────────────┘
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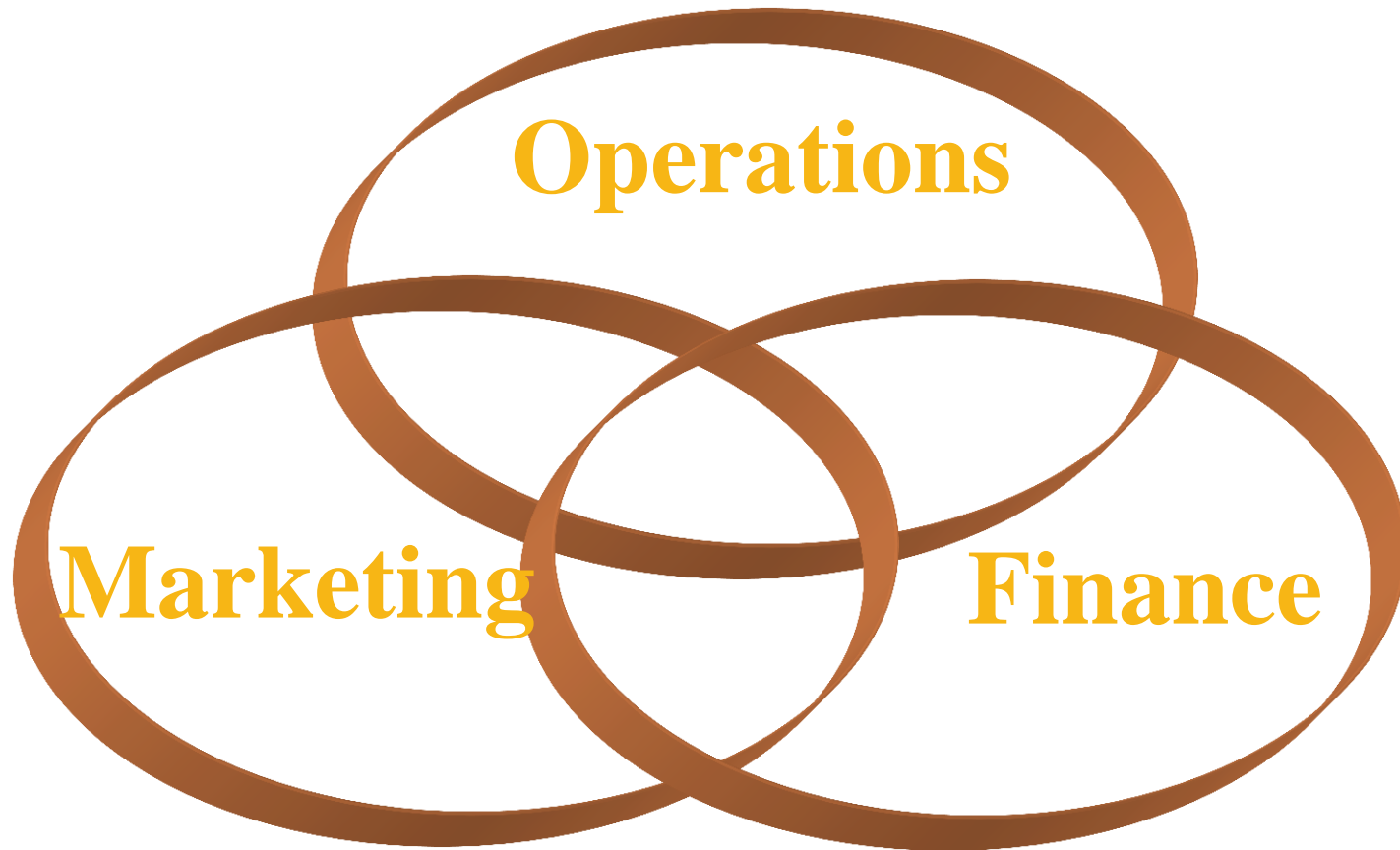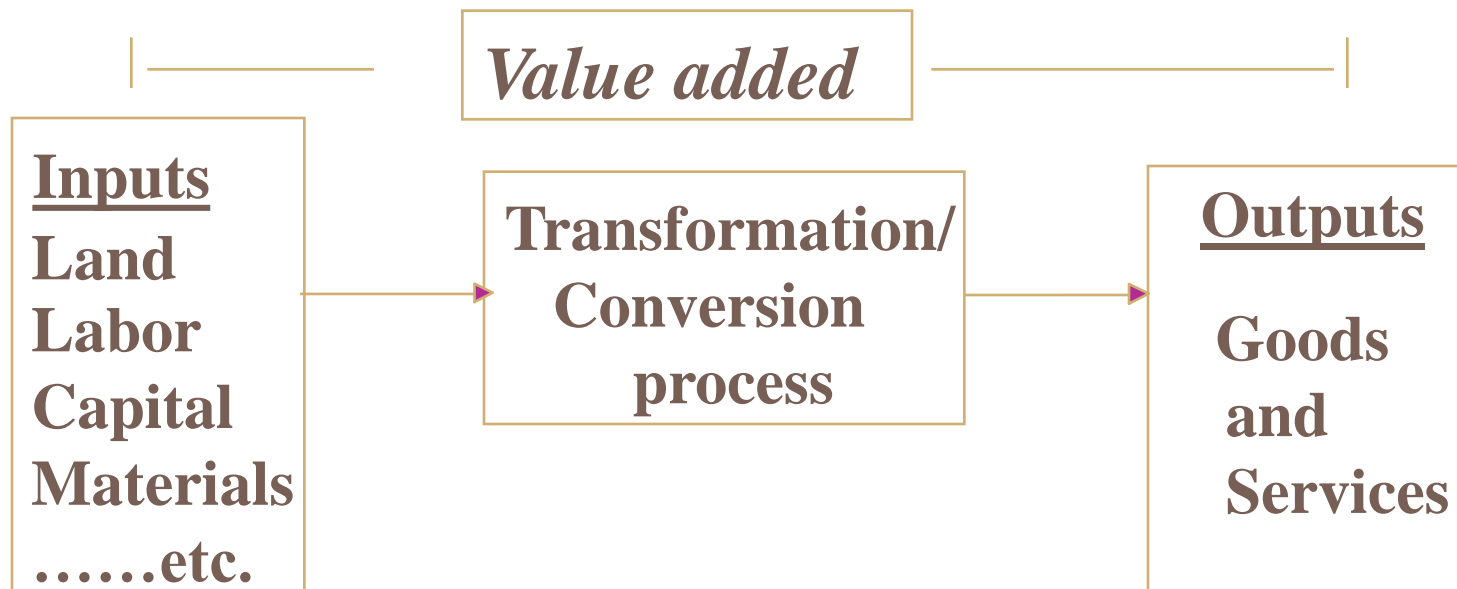
Strategic Planning
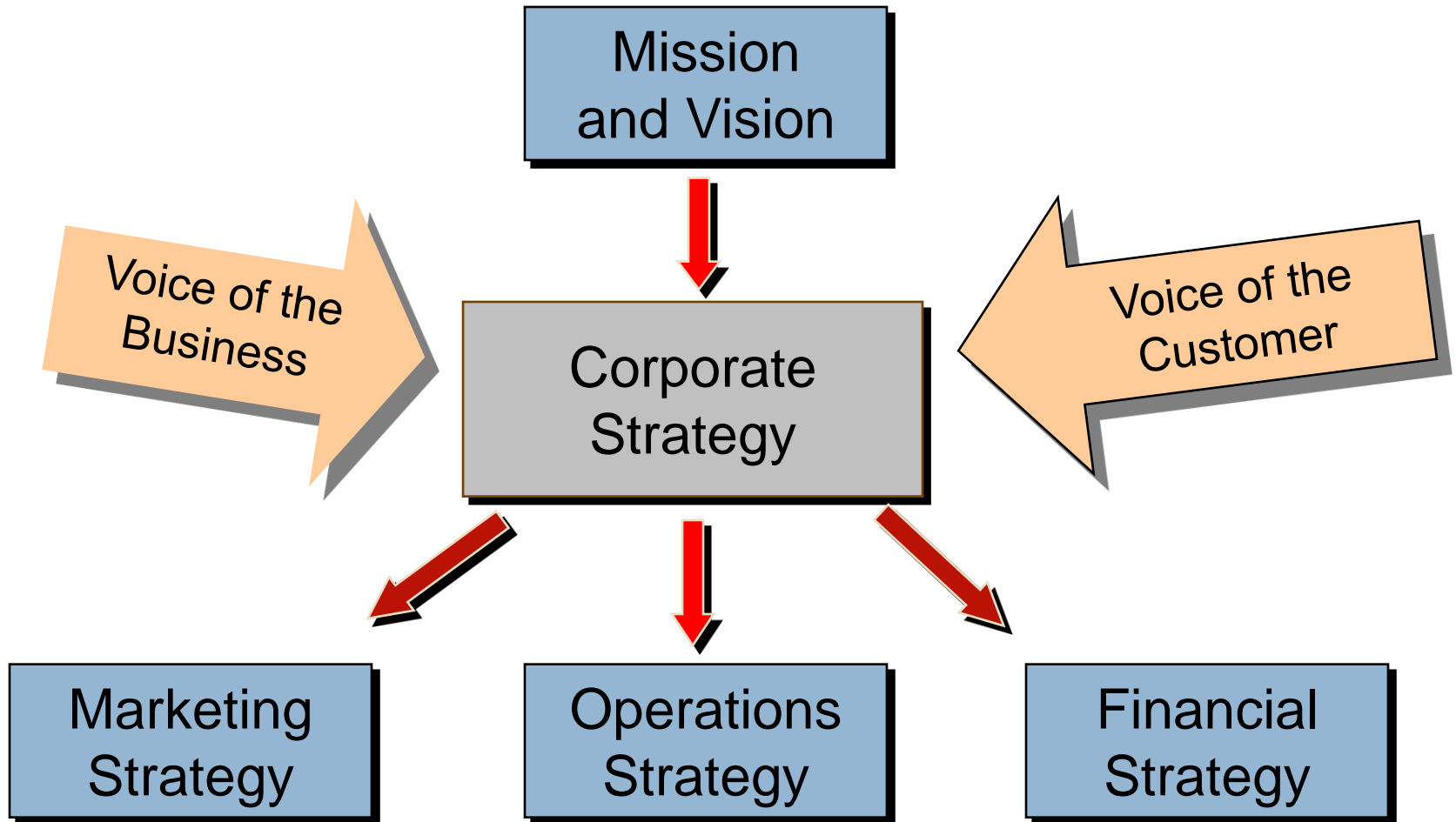
Business Operations Overlap

Operation Function

The operations function involves the conversion of inputs into outputs

Inputs	Transformation/ Conversion process	Outputs
Land Labor Capital Materials ……etc.		Goods and Services

Value added

Key Decisions of Operations Managers

- What

  What resources/what amounts

- Where

  Work to be done

- How

  Designed

- Who

  To do the work

- When

  Needed/scheduled/ordered

What?

- Directly affects Productivity
  - How to get more from what you have
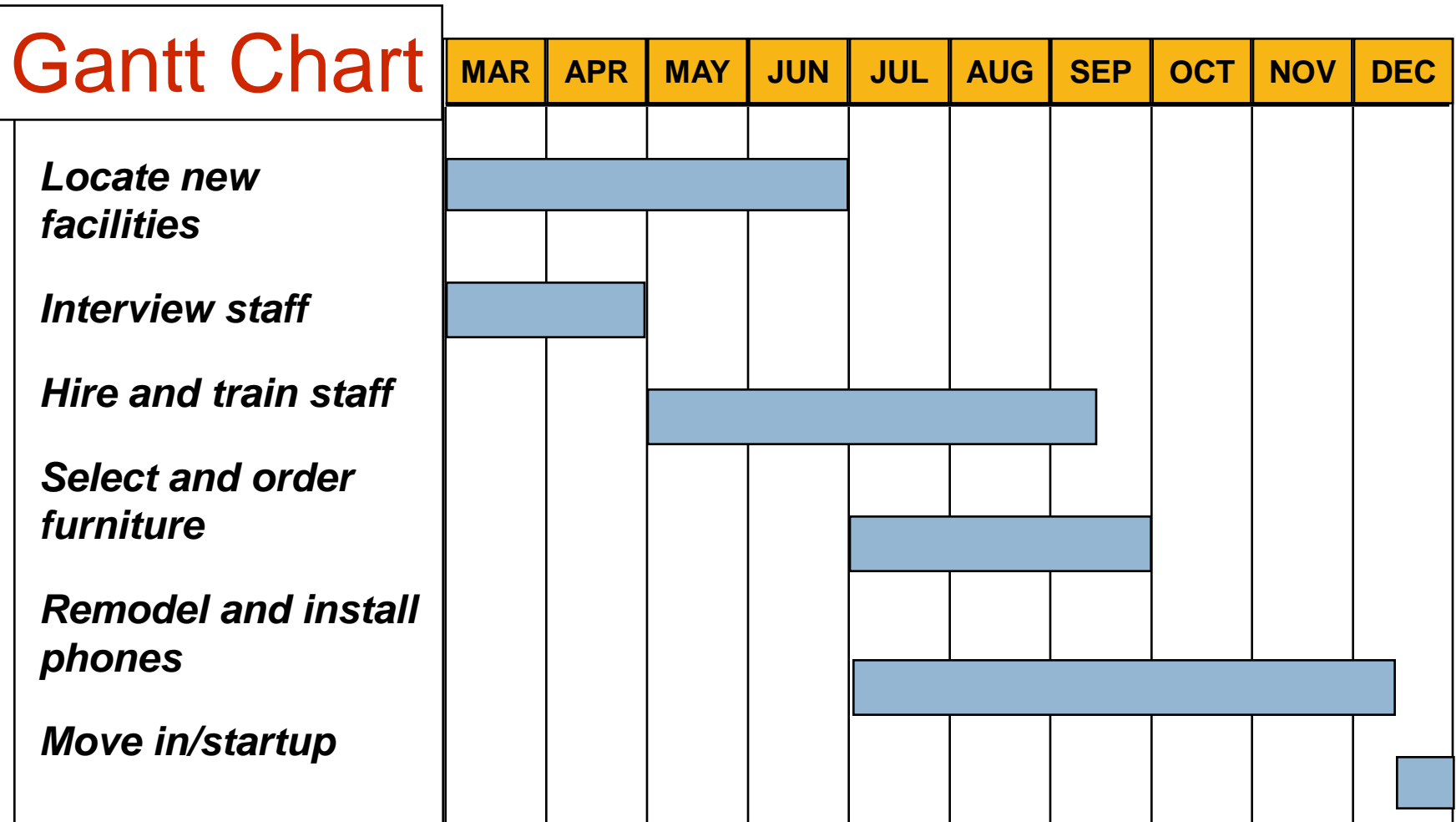 - Working with fewer resources

$$Productivity = \frac{Outputs}{Inputs}$$

- More difficult to calculate for services

When?
Scheduling

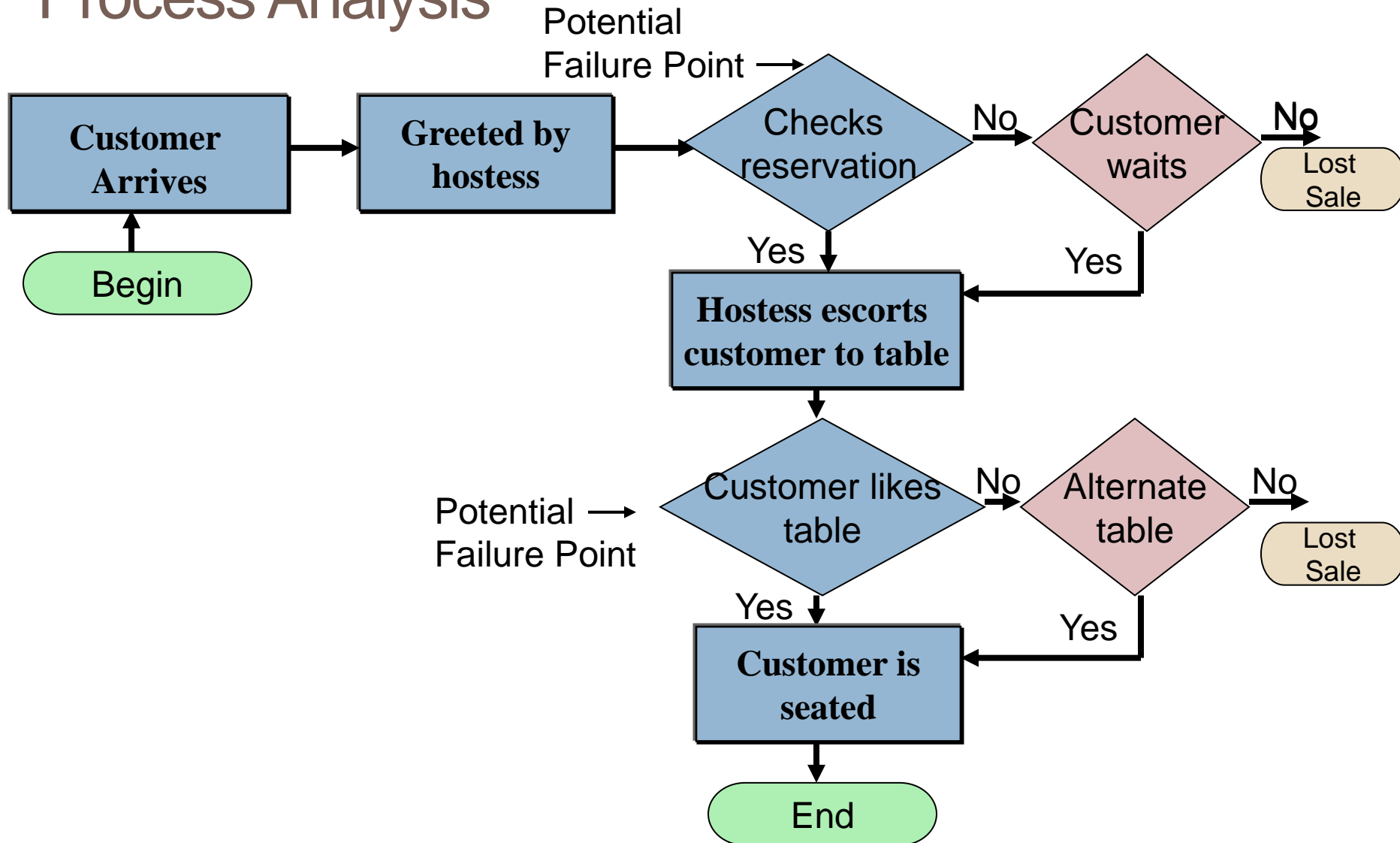| Gantt Chart	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Locate new facilities	███	███	███	███						
Interview staff	███	███								
Hire and train staff			███	███	███	███	███			
Select and order furniture					███	███	███	███		
Remodel and install phones					███	███	███	███	███	
Move in/startup										███

Where?

Manufacturing/ Distribution	Service/ Retail
Cost Focus	**Revenue focus**
Transportation modes/costs	Demographics: age,income,etc
Energy availability, costs	Population
Labor cost/availability/skills	Competition
Building/leasing costs	Traffic volume/patterns
	Customer access/parking

How?
Process Analysis

Potential
Failure Point →

| Customer Arrives | → | Greeted by hostess | → | Checks reservation | No → | Customer waits | No → | Lost Sale |

Begin →

Yes ↓   Yes ←

Hostess escorts customer to table

↓

Potential → Customer likes table   No →   Alternate table   No →   Lost Sale
Failure Point

Yes ↓   Yes ←

Customer is seated

↓

End

Who?

Job design: involves specifying the content and
    methods of a job

- What will be done
- How the job will be done
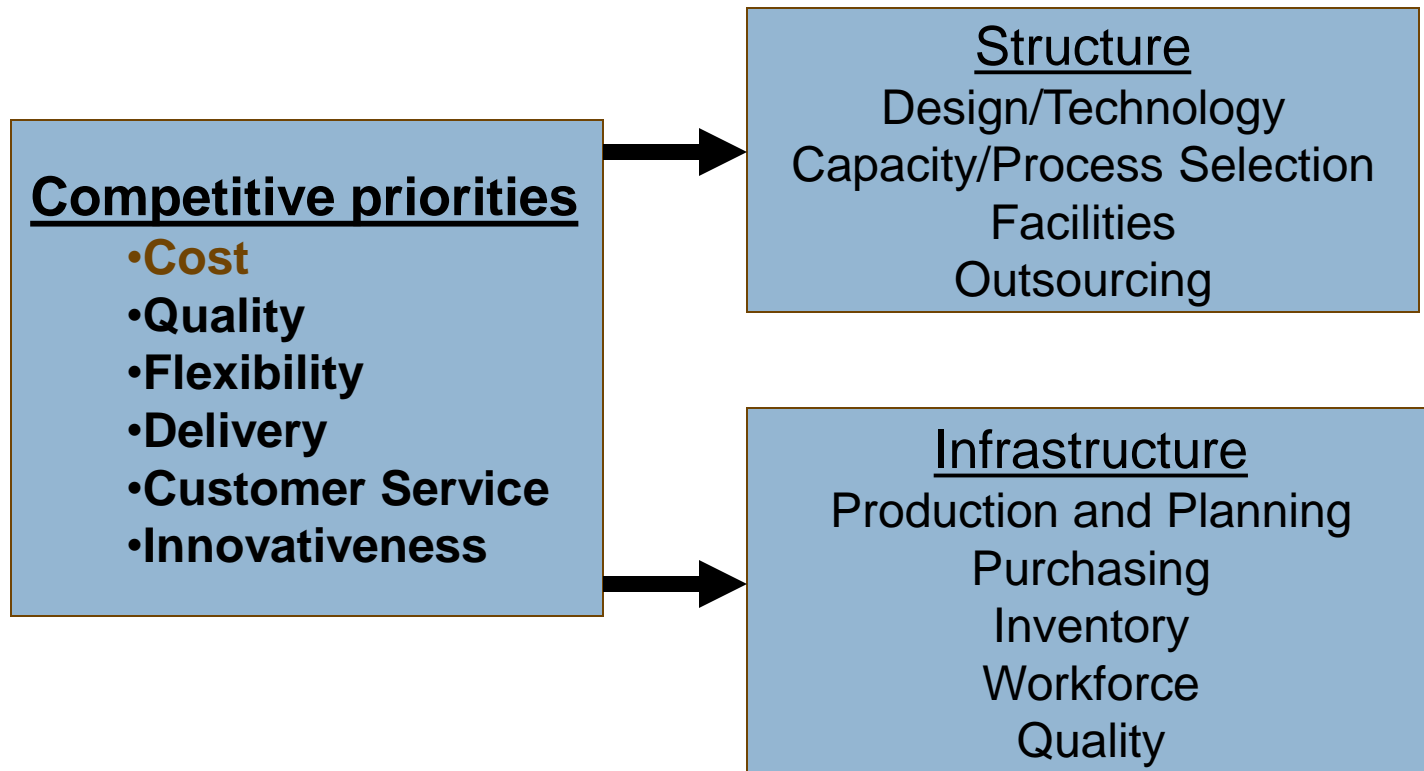- Where the job will be done
- Who will do the job

Outsourcing: should I or someone else do the job

- Available capacity
- Expertise
- Quality considerations
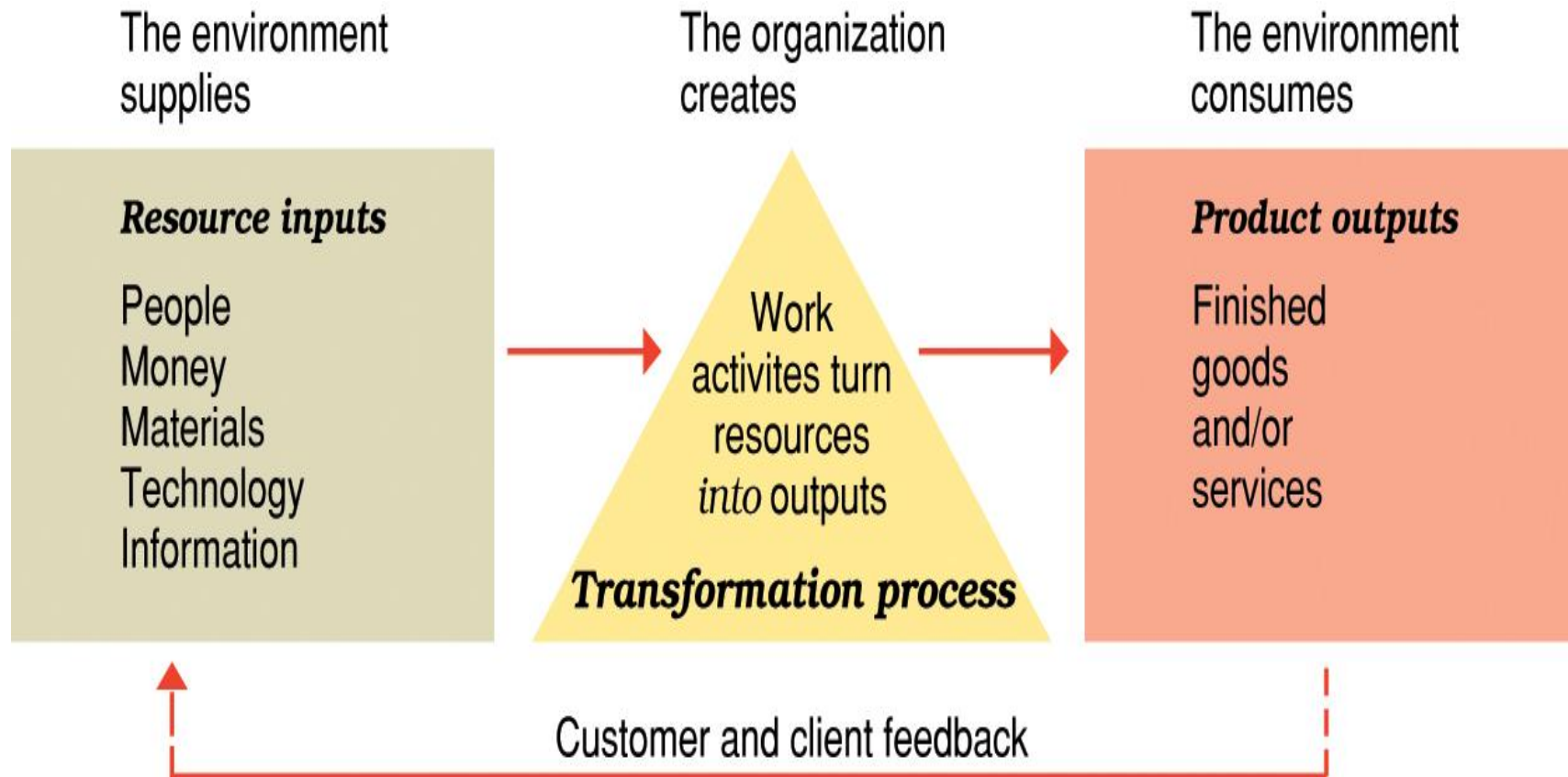- Nature of demand
- Risk
- Cost

Trade-Offs

- Operations managers often encounter decisions that can be described as *trade-off* decisions

- Example:
  - Decision on the amount of inventory to stock
    - Increased cost of holding inventory
                    Vs.
    - Level of customer service

Operation Strategy Model

Competitive priorities
- **Cost**
- **Quality**
- **Flexibility**
- **Delivery**
- **Customer Service**
- **Innovativeness**

Structure
Design/Technology
Capacity/Process Selection
Facilities
Outsourcing

Infrastructure
Production and Planning
Purchasing
Inventory
Workforce
Quality

What: Inputs; Processing; Outputs?

The environment supplies

The organization creates

The environment consumes

Resource inputs

People
Money
Materials
Technology
Information

Work activites turn resources *into* outputs

Transformation process

Product outputs

Finished goods and/or services

Customer and client feedback

What: Inputs; Processing; Outputs?

➢Organizational performance

- Productivity
  - An overall measure of the quantity and quality of work performance with resource utilization taken into account.
  - Performance effectiveness
    - An output measure of task or goal accomplishment.
  - Performance efficiency
    - An input measure of the resource costs associated with goal accomplishment.

# Productivity and the dimensions of organizational performance.

	Poor — Resource Utilization — Good	
High Goal attainment	*Effective but not efficient* • Goals achieved • Resources wasted	*Effective and efficient* • Goals achieved • No wasted resources • High productivity
Low	*Neither effective nor efficient* • Goals not achieved • Resources wasted	*Efficient but not effective* • No wasted resources • Goals not achieved

Where?

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Labor cost/availability/skills	Competition
Building/leasing costs	Traffic volume/patterns
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Where? Evaluating Locations

- Cost-Profit-Volume Analysis
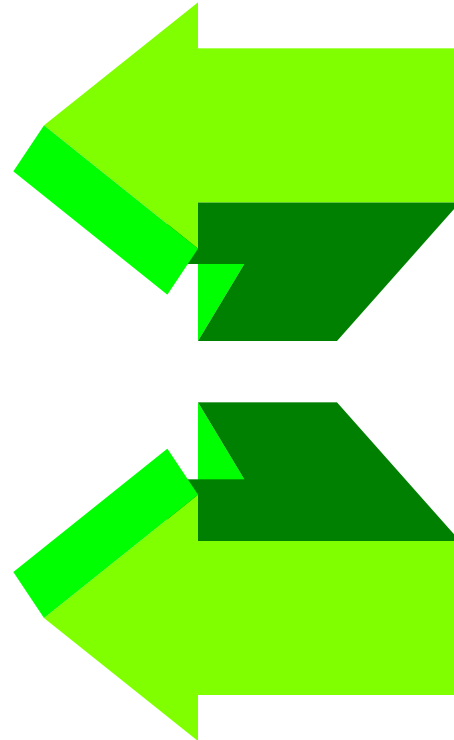 - Determine fixed and variable costs
  - Plot total costs
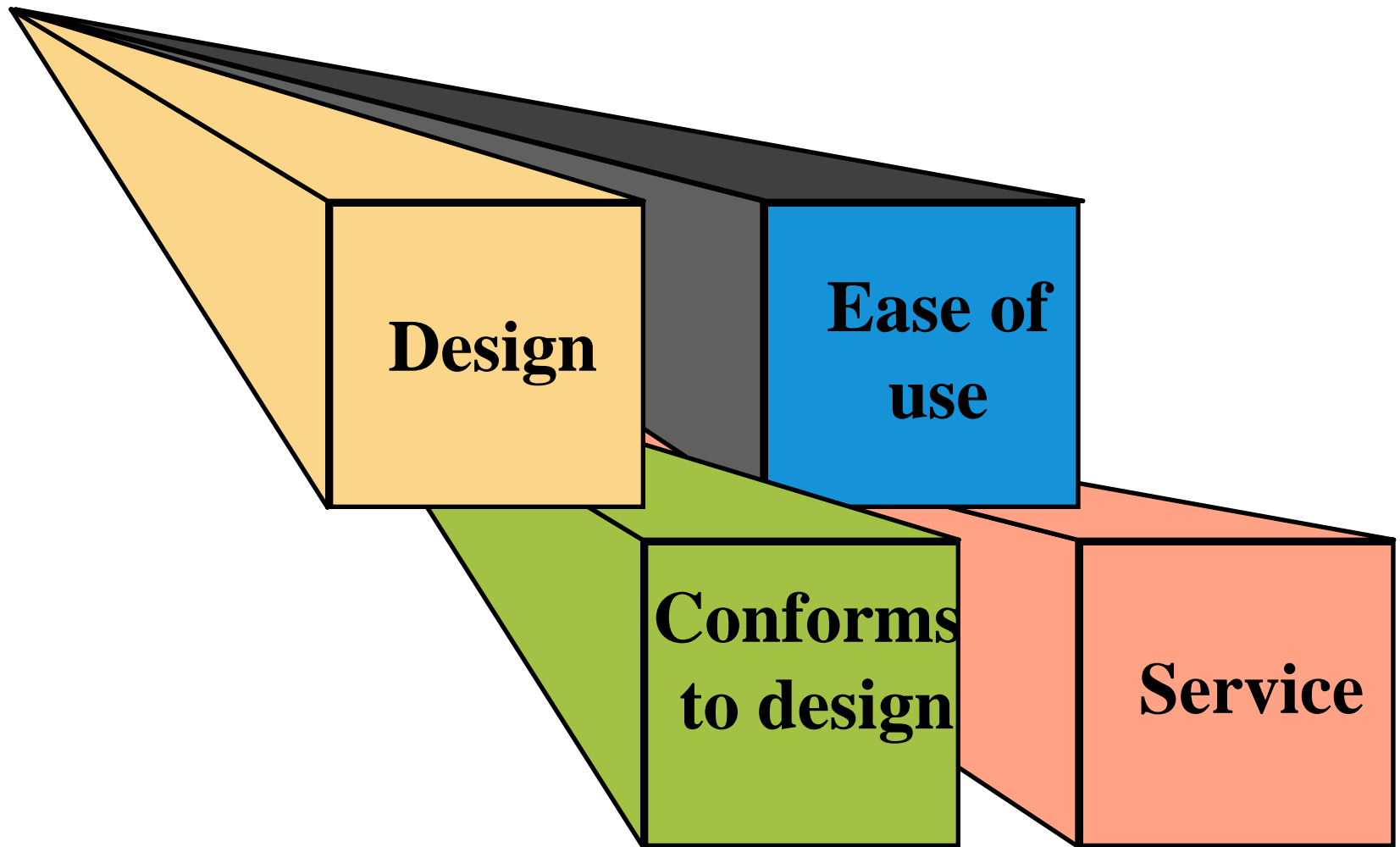 - Determine lowest total costs
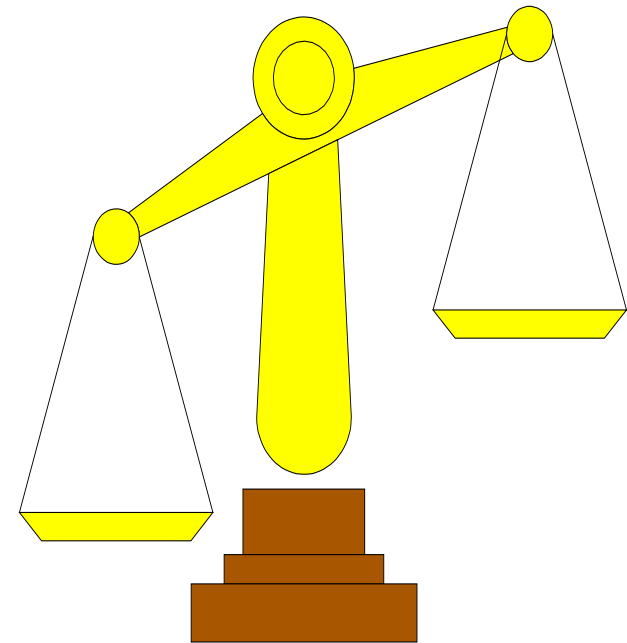
How? Quality Management

- What does the term *quality* mean?

- *Quality* is the ability of a product or service to consistently meet or exceed customer expectations.

Service Quality dimensions

- Convenience
- Reliability
- Responsiveness
- Time
- Assurance
- Courtesy
- Tangibles

Determinants of Quality

Product and Service Design Activities

1. Translate customer wants and needs into product and service requirements.
2. Refine existing products and services
3. or Develop new products and services
4. Formulate quality and cost targets
5. Construct and test prototypes
6. Document specifications

Quality Function Deployment (QFD)

- ## Quality Function Deployment
  - Voice of the customer
  - Technical capabilities of the company

- ## Purpose is to ensure that customer requirements are factored into every aspect of the process

- ## Tool for defining the "right" problem to solve

QFD: A structured approach that integrates the "voice of the customer" into the product and service development process.

A QFD Example for Amazon

Customer requirements (What)	Importance to Customer	Operating requirements (How)			
		Web and Technical Support Expertise	Number of zShops	Number of Ware - houses	Logistics Network
User Friendly search	3	☺			
Find what I'm looking for	2	☐	☺	☐	
Speed of delivery	2	◊	☐	☺	☺
Reliability of sale	1		◊		◊
Return of products	2	◊		◊	☺
Importance Weighting		**37**	**25**	**26**	**37**

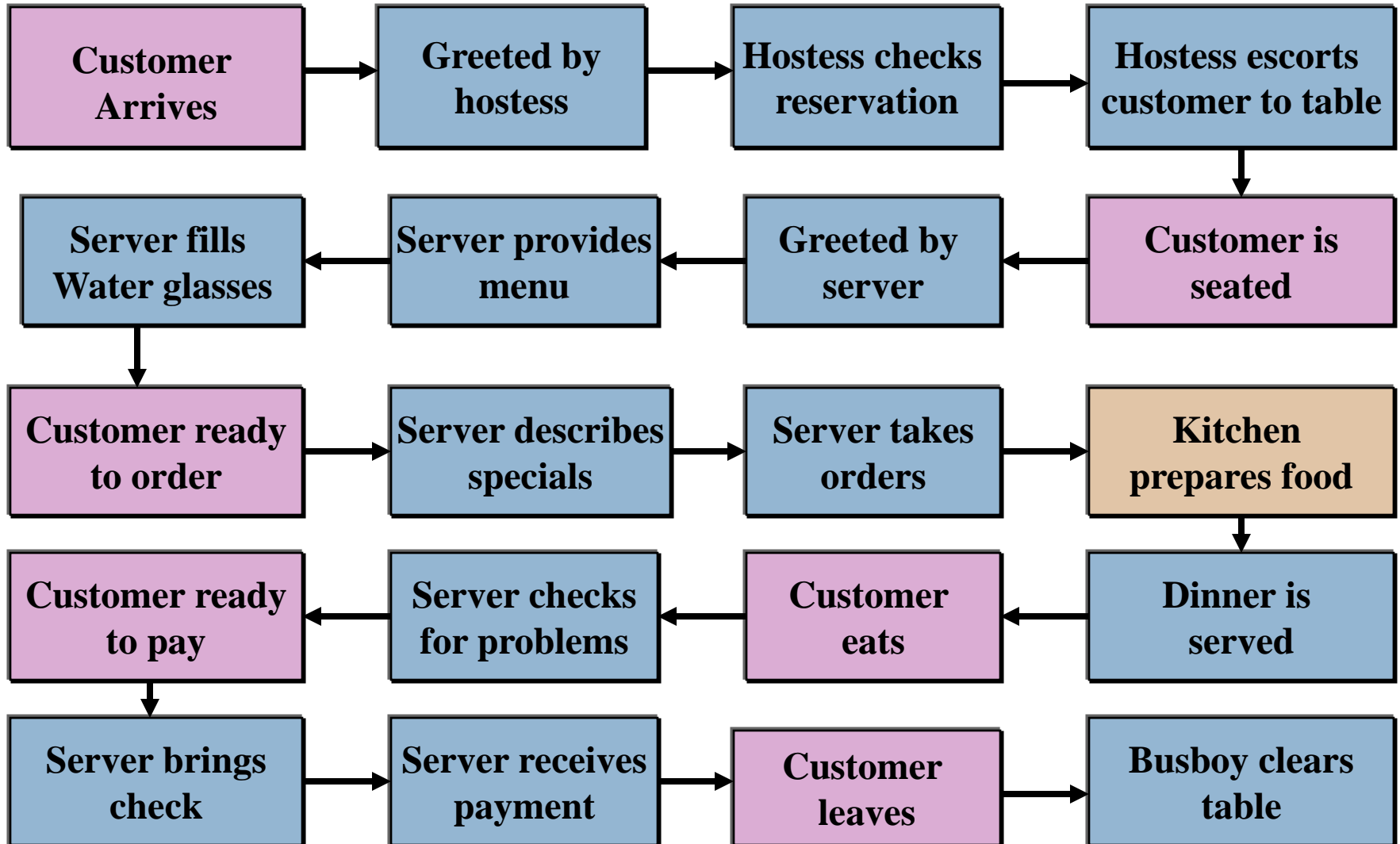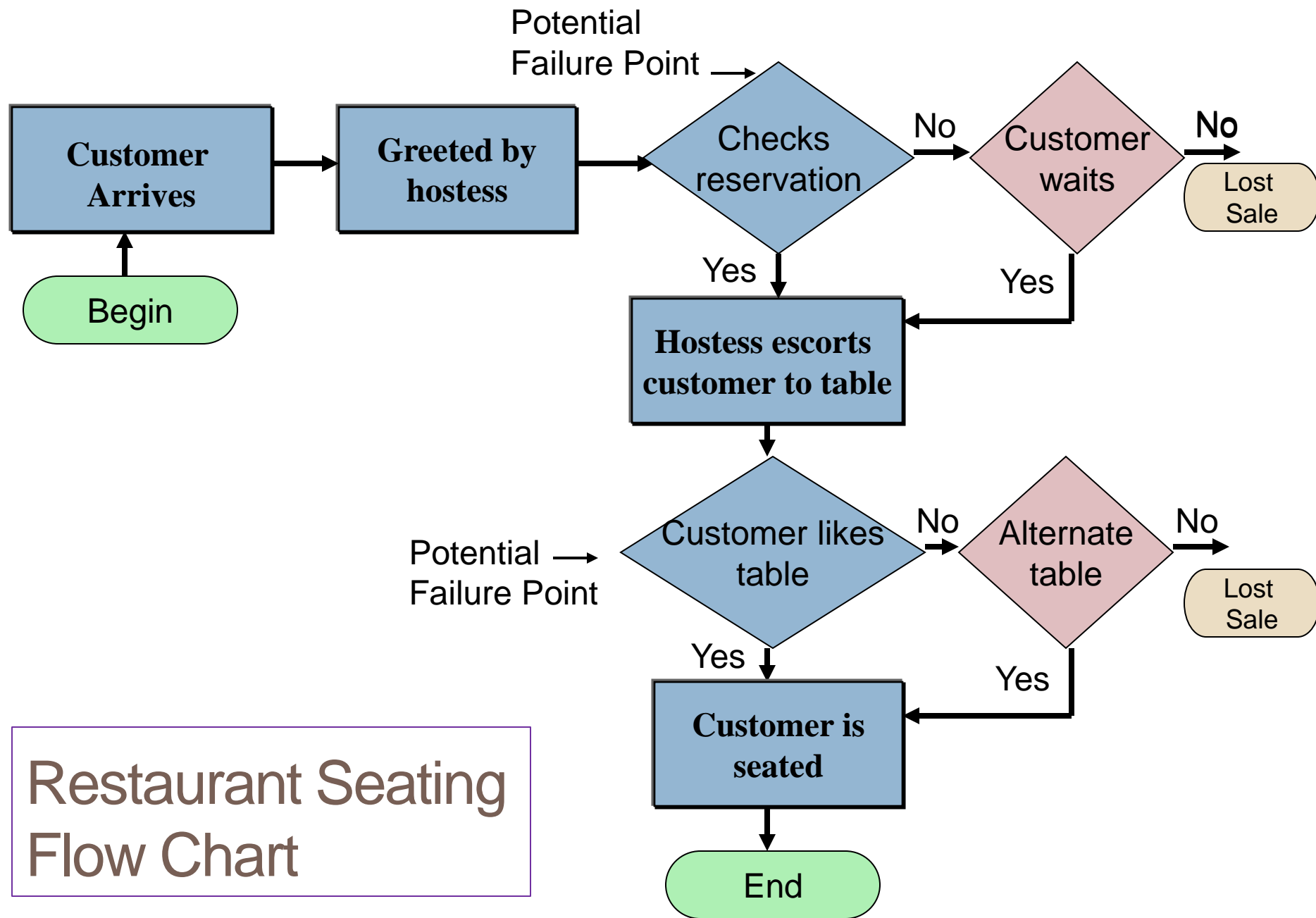| Relationship	Value	Symbol
Strong	**9**	☺
Medium	**3**	☐
Weak	**1**	◊

Exercise

- Decide on a particular product or service that you will design for your business and prepare a QFD matrix
- List five to six customer priorities and rate their importance in light of your competitive strategy (try not to include price or cost, except if it is critical to your competitive priorities)
- List five or six operational capabilities (things you can control)
- Discuss the strength of the relationships between customers needs and operational capabilities, and use symbols to reflect your decisions on the strength of the relationships
- Calculate Importance Weights (Multiply value of each symbol with the corresponding customers importance)

Service Blueprinting

- A method used in service design to describe and analyze a proposed service
- A useful tool for conceptualizing a service delivery system
- Steps:
  1. Establish boundaries
  2. Identify sequence of customer interactions
     - Prepare a flowchart
  3. Develop time estimates
  4. Identify potential failure points

A Restaurant Example

|			
Customer Arrives →	**Greeted by hostess** →	**Hostess checks reservation** →	**Hostess escorts customer to table** ↓
Server fills Water glasses ↓ ←	**Server provides menu** ←	**Greeted by server** ←	**Customer is seated**
Customer ready to order →	**Server describes specials** →	**Server takes orders** →	**Kitchen prepares food** ↓
Customer ready to pay ↓ ←	**Server checks for problems** ←	**Customer eats** ←	**Dinner is served**
Server brings check →	**Server receives payment** →	**Customer leaves** →	**Busboy clears table**

Restaurant Seating Flow Chart

Exercise

- For your service, draw the sequence of customer interactions (Note: imagine you are the customer)
- List all the steps needed by you to move from one interaction to another (Note: now you're the manger☺)
- Differentiate between the steps the customer can see and the steps the customer can't (the backstage)
- For a portion of your process (or for all of it), flow chart your business and identify the Potential Failure Points
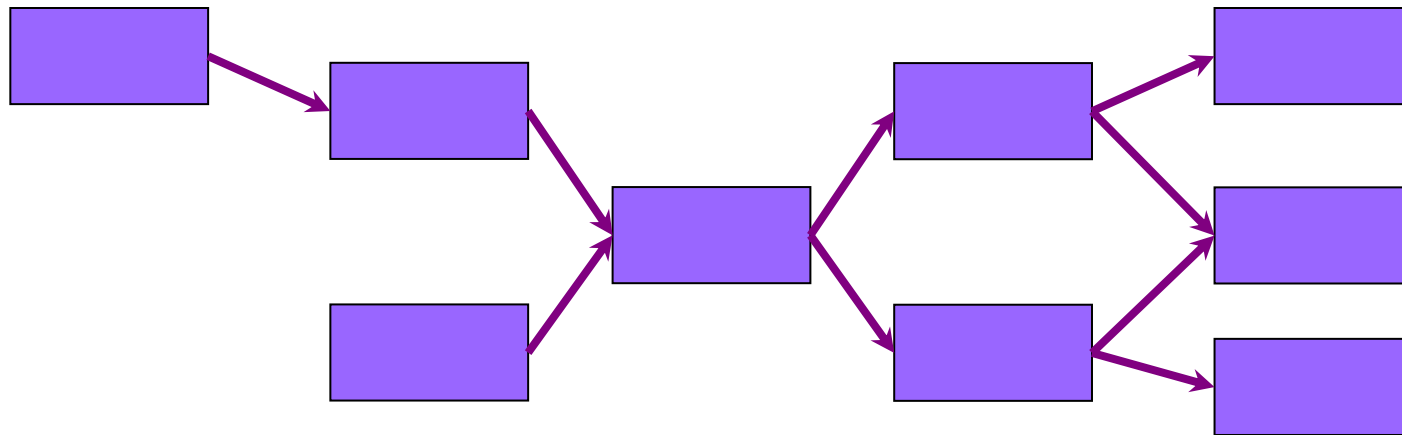
Who? Workforce and Job Design

- *Job design* involves specifying the content and methods of job
  - What will be done
  - Who will do the job
  - How the job will be done
  - Where the job will be done

Who? Supply networks
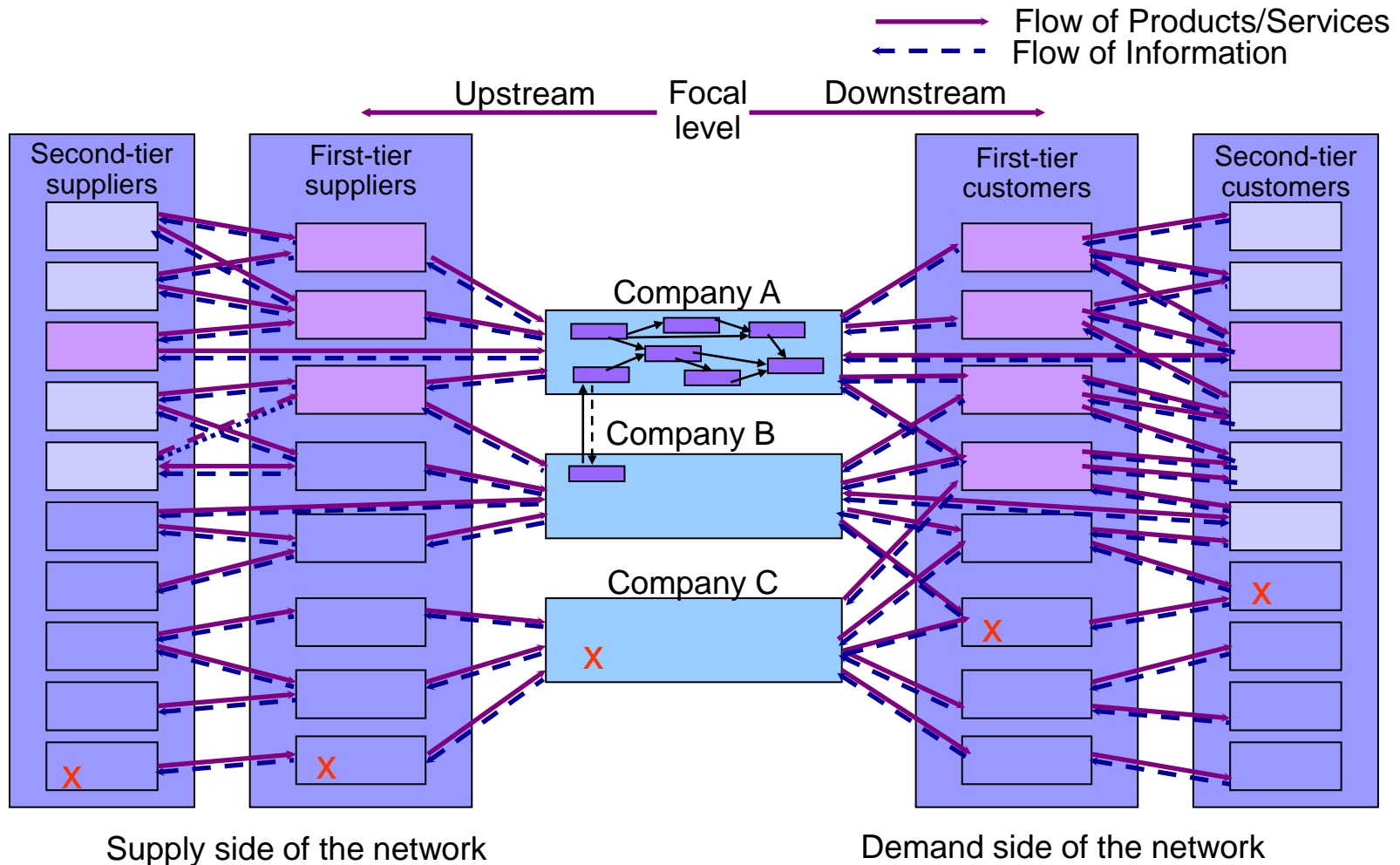
Operations performance should be seen as a whole supply chain issue

Benefits of looking at the whole supply chain

- Puts the operation into its competitive context
- Helps identify the key players
- Shifts emphasis to the long term
- Sensitises the operation to macro changes
- Changes the nature of the 'supplier–buyer' relationship

In-House or Outsourcing (Make or Buy Decisions)

> Outsource: obtain a good or service from an external provider

Decision Factors:

1. Available capacity
2. Expertise
3. Quality considerations
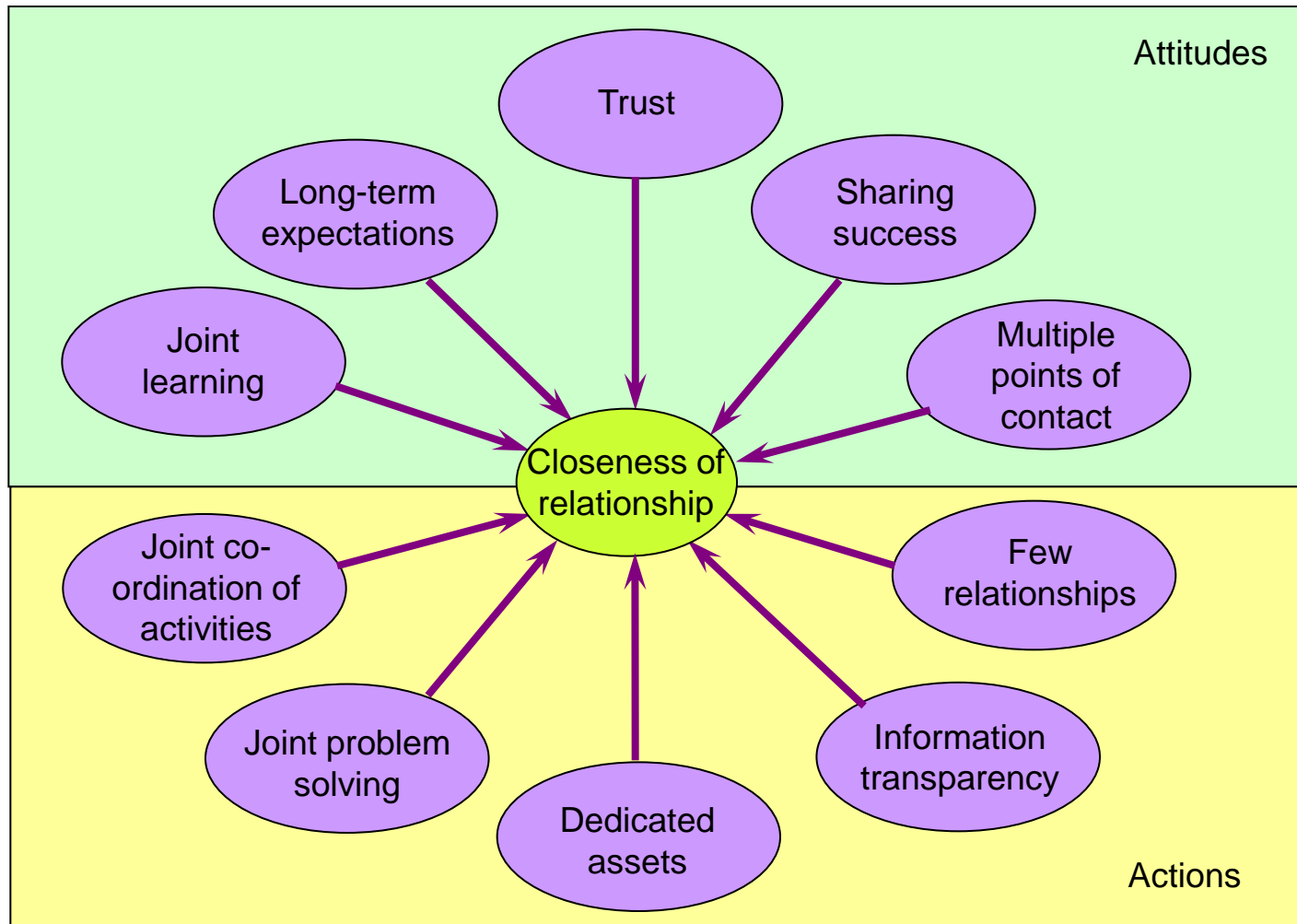4. Nature of demand
5. Risk
6. Cost

Choosing a Supplier

- Lowest price
- Quality and quality assurance
- Degree of flexibility
- Convenient location
- Suitable lead-times and on-time delivery
- Inventory policy
- Reputation and financial stability
- Other customers accounts
- Other services offered
- Past good relationships
- Possible partnership opportunities

Exercise

1) List all your current and prospective suppliers
2) Do you have a formal purchasing/service procedure in place
3) On what factors do you choose your supplier. Prioritize your list.

Elements of process partnership relationships

Attitudes

- Trust
- Long-term expectations
- Sharing success
- Joint learning
- Multiple points of contact
- Closeness of relationship

Actions

- Joint co-ordination of activities
- Joint problem solving
- Dedicated assets
- Information transparency
- Few relationships

Some factors influencing the nature of network relationships

Transaction costs

Economies of scale

Learning potential

Resource deficiencies

OPERATIONS RESOURCES

Nature of network relationship

MARKET REQUIREMENTS

Market position

Market risks

Market structure

Competitive behaviour

When?
Scheduling

Gantt Chart	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Locate new facilities	███	███	███	███						
Interview staff	███	███								
Hire and train staff			███	███	███	███	███			
Select and order furniture					███	███	███	███		
Remodel and install phones					███	███	███	███	███	
Move in/startup										███

Thank You!

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