Project Initiation Problems in the organization
Problems that lend themselves to systems solutions

Opportunities for improvement

Caused through upgrading, altering, or installing new systems

Both problems and opportunities can arise as the organization adapts to and copes with natural, evolutionary change.

Identifying and Forecasting Costs and Benefits
Judgment methods

Estimates from the sales force

Surveys to estimate customer demand

Delphi studies

Creating scenarios

Drawing historical analogies

Conditions for choosing a model are judgment methods

Judgment methods—if historical data are available then consider whether the forecast is conditional or unconditional.

Identifying and Forecasting Costs and Benefits (continued)
If historical data are available

Conditional: There is an association among variables in the model

Unconditional: Do not need to find or identify any relationships

Conditional—correlation regression, leading indicators, econometrics, and input/out models.

Unconditional—judgment, moving average, and analysis of time series data.

Identifying Benefits and Costs
Tangible benefits are advantages measurable in dollars through the use of the information system

Intangible benefits are difficult to measure

Tangible costs are accurately projected by the systems analyst and accounting personnel

Intangible costs are difficult to estimate and may not be known

Both tangible and intangible cost must be taken into account when systems are considered.

Tangible Benefits

Advantages measurable in dollars that accrue to the organization through the use of the information system

Examples: Increase in the speed of processing

Access to otherwise inaccessible information

Access to information on a more timely basis

The advantage of the computer's superior calculating power

Decreases in the amount of employee time needed to complete specific tasks

Tangible benefits can be measured in terms of dollars, resources, or time saved.

Intangible Benefits

Intangible benefits are benefits from use of the information system that are difficult to measure

Examples: Improving the decision-making process

Enhancing accuracy

Becoming more competitive in customer service

Maintaining a good business image

Increasing job satisfaction

Both tangible and intangible benefits must be discussed in the proposal, both will allow decision makers to make a well-informed decision about the proposed system.

Tangible Costs

Those that can be accurately projected by systems analysts and the business' accounting personnel

Examples: Cost of equipment

Cost of resources

Cost of systems analysts' time

Cost of programmers' time

Employees' salaries

These costs are well established and are the costs that require a cash outlay of the business.

Intangible Costs

Those that are difficult to estimate and may not be known

Examples: Losing a competitive edge

Losing the reputation of being first

Declining company image

Ineffective decision making

It is generally not possible accurately to project a dollar amount for intangible costs.

Break-Even Analysis

The point at which the total cost of the current system and the proposed system intersect

Useful when a business is growing and volume is a key variable in costs

Disadvantage: Benefits are assumed to remain the same

Advantage: Can determine how long it will take for the benefits of the system to pay back the costs of developing it

Total costs = costs that recur during operation of the system + developmental costs that occur only once

PERT Diagram Advantages
Easy identification of the order of precedence

Easy identification of the critical path and thus critical activities

Easy determination of slack time

The leeway to fall behind somewhat on noncritical paths is called slack time.

Advantages Of Gantt Chart

1. **Visual Clarity**:
    - Gantt charts provide a clear visual representation of the project timeline, showing the start and end dates of each task. This makes it easy to understand the project schedule at a glance and see how tasks overlap and depend on each other.
2. **Progress Tracking**:
    - They allow project managers to track the progress of each task in real-time. By updating the chart as tasks are completed, you can quickly identify any delays or issues and take corrective actions to keep the project on track.
3. **Resource Management**:
    - Gantt charts help in managing resources effectively by showing who is responsible for each task and when they are scheduled to work. This helps in balancing workloads and ensuring that resources are allocated efficiently throughout the project.