

UNIT-1: Project Management [Important Questions With Detailed Answers]

Topics: Feasibility Study, Market Analysis, Financial Appraisal, Payback Period, Cost Estimate

1. Feasibility Study

Introduction

Feasibility Study ka matlab hai project start karne se pehle check karna ki project practical hai ya nahi.

Simple words me: **“Ye project karna possible, profitable aur useful hai ya nahi?”**

Definition

Feasibility Study is a systematic analysis used to determine whether a proposed project is technically, economically, legally, operationally and financially possible.

Why It Is Needed

Feasibility study helps to avoid:

- money loss
- time waste
- wrong investment
- project failure
- poor planning

Easy Explanation

Maan lo aap PG website banana chahte ho. Start karne se pehle check karoge:

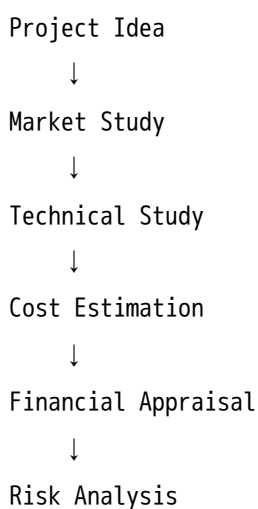
- client hai ya nahi?
- website banane ka cost kitna?
- payment system possible hai?
- users use karenge ya nahi?
- profit milega ya nahi?

Ye complete checking hi feasibility study hai.

Step-by-Step Working

1. **Project idea identify karna**
2. **Market demand check karna**
3. **Technology availability check karna**
4. **Cost estimate banana**
5. **Financial return calculate karna**
6. **Risk check karna**
7. **Final decision lena: accept or reject**

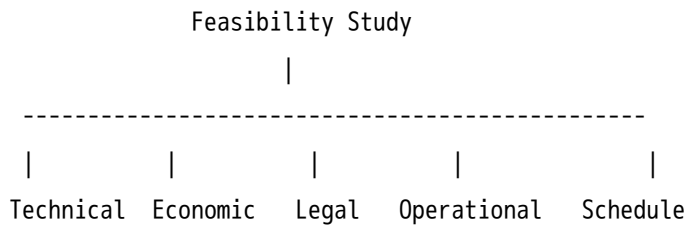
Flow of Process





Decision

Diagram



Real-Life Analogy

Jaise ghar banane se pehle check karte hain:

- zameen legal hai?
- budget hai?
- material available hai?
- time lagega kitna?

Same project me feasibility study hoti hai.

Advantages

- Risk kam hota hai
- Money waste nahi hota
- Better decision making hoti hai
- Project planning strong hoti hai
- Investor ko confidence milta hai

Disadvantages

- Time consuming hota hai
- Expert knowledge chahiye
- Kabhi-kabhi data accurate nahi hota
- Costly process ho sakta hai

Applications

- Software projects
- Construction projects
- Business startups
- Government projects
- Manufacturing industries

Important Keywords

Viability, Risk Analysis, Technical Feasibility, Economic Feasibility, Operational Feasibility, Cost-Benefit Analysis

Conclusion

Feasibility study project ka first and most important step hai. Isse organization ko pata chalta hai ki project start karna safe, useful aur profitable hai ya nahi.

2. Types of Feasibility

Introduction

Feasibility study ke different types hote hain. Har type project ke alag angle ko check karta hai.

Definition

Types of feasibility are different ways of checking whether a project can be successfully completed under given conditions.

Main Types

Type	Meaning
Technical Feasibility	Technology available hai ya nahi
Economic Feasibility	Project profitable hai ya nahi
Operational Feasibility	Organization use kar payegi ya nahi
Legal Feasibility	Law ke according hai ya nahi
Schedule Feasibility	Time par complete hoga ya nahi
Financial Feasibility	Funds available hain ya nahi

Easy Explanation

1. Technical Feasibility

Check karta hai:

- software available hai?
- hardware available hai?
- skilled people available hain?

Example: Online booking website banana technically possible hai ya nahi.

2. Economic Feasibility

Check karta hai:

- cost kitni hogi?
- benefit kitna milega?
- profit hoga ya loss?

3. Operational Feasibility

Check karta hai:

- users system use kar payenge?
- employees trained hain?

- system daily work me useful hai?

4. Legal Feasibility

Check karta hai:

- project legal rules follow karta hai?
- license required hai?
- government permission chahiye?

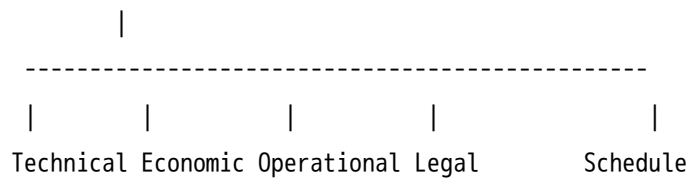
5. Schedule Feasibility

Check karta hai:

- project time par complete hoga?
- deadline realistic hai?

Diagram

Types of Feasibility



Memory Trick

TEOLS

- T = Technical
- E = Economic
- O = Operational
- L = Legal
- S = Schedule

Advantages

- Complete checking hoti hai
- Failure chances kam hote hain
- Planning easy hoti hai
- Investor decision strong hota hai

Important Keywords

Technical, Economic, Legal, Operational, Schedule, Financial Viability

Conclusion

Types of feasibility project ko multiple angles se check karte hain. Isse project ke success chances badh jaate hain.

3. Market Analysis

Introduction

Market Analysis ka matlab hai market ko samajhna. Product ya project launch karne se pehle customers, competitors aur demand ko study karna zaroori hota hai.

Definition

Market Analysis is the process of studying customers, competitors, demand, price and market conditions before starting a project.

Why It Is Needed

- Customer demand pata karne ke liye
- Competitors ko samajhne ke liye

- Product price decide karne ke liye
- Sales estimate karne ke liye

Easy Explanation

Agar aap PG website bana rahe ho, to check karoge:

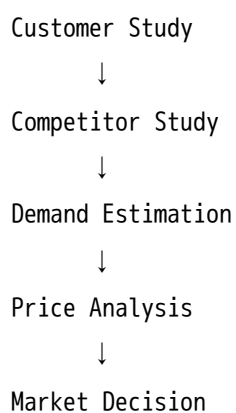
- Gwalior me PG students kitne hain?
- Competitor PG ka rent kya hai?
- Students ko kya facilities chahiye?
- Online booking demand hai ya nahi?

Ye market analysis hai.

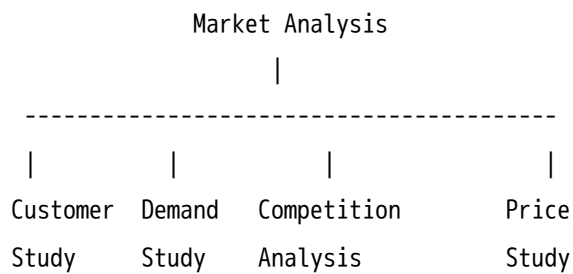
Step-by-Step Working

1. Target customer identify karo
2. Market size check karo
3. Customer needs samjho
4. Competitors analyze karo
5. Price compare karo
6. Future demand estimate karo
7. Final report banao

Flow of Process



Diagram



Real-Life Analogy

Shop kholne se pehle shopkeeper check karta hai:

- area me customers hain?
- same shop already hai?
- product bikenge?
- price kya rakhna hai?

Same concept market analysis me hota hai.

Advantages

- Customer need samajh aati hai
- Sales planning easy hoti hai
- Competition ka idea milta hai
- Business risk kam hota hai
- Pricing decision better hota hai

Disadvantages

- Data collection difficult hota hai

- Market future uncertain hota hai
- Customer behavior change ho sakta hai

Applications

- New product launch
- Startup planning
- Software project
- Construction project
- Business expansion

Important Keywords

Market Size, Customer Demand, Competitor Analysis, Price Analysis, Target Customers, Market Segmentation

Conclusion

Market analysis project ke success ke liye very important hai because project tabhi successful hota hai jab market me uski demand ho.

4. Demand Forecasting

Introduction

Demand Forecasting ka matlab hai future demand ka estimate lagana. Isse company ko pata chalta hai ki future me product ki kitni demand hogi.

Definition

Demand Forecasting is the process of estimating future demand for a product or service using past data, market trends and customer behavior.

Why It Is Needed

- Production planning ke liye
- Investment decision ke liye
- Sales target banane ke liye
- Stock management ke liye

Easy Explanation

Agar students exam ke time notes zyada kharidte hain, to notes website owner pehle se demand estimate karega. Ye demand forecasting hai.

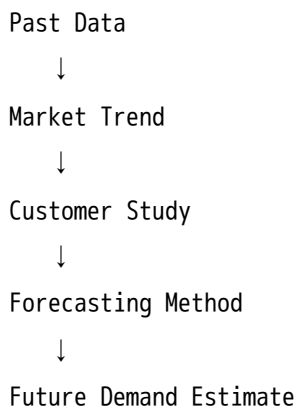
Methods of Demand Forecasting

Method	Meaning
Survey Method	Customers se directly poochna
Expert Opinion	Experts se advice lena
Trend Analysis	Past data dekhna
Statistical Method	Mathematical calculation
Market Experiment	Small area me test karna

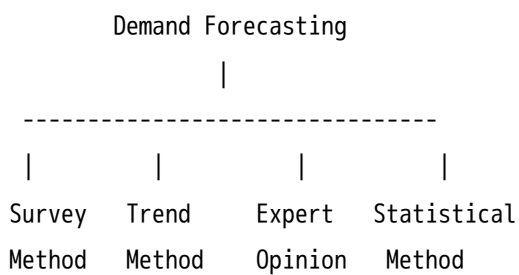
Step-by-Step Working

1. Product identify karo
2. Past demand data collect karo
3. Market trend study karo
4. Customer behavior analyze karo
5. Forecasting method select karo
6. Future demand calculate karo

Flow



Diagram



Advantages

- Future planning easy
- Production control
- Stock shortage avoid hota hai
- Business profit increase hota hai

Disadvantages

- Forecast always 100% correct nahi hota
- Market conditions change ho sakti hain
- Wrong data se wrong prediction hota hai

Important Keywords

Future Demand, Trend Analysis, Survey Method, Expert Opinion, Customer Behavior, Forecasting

Conclusion

Demand forecasting business ko future ke liye ready banata hai. It helps in better planning and decision making.

5. Project Identification

Introduction

Project Identification ka matlab hai best project idea ko select karna. Har idea successful nahi hota, isliye correct project choose karna important hai.

Definition

Project Identification is the process of finding and selecting suitable project ideas based on market needs, resources, opportunities and organizational objectives.

Why It Is Needed

- Correct business opportunity choose karne ke liye
- Resources ka best use karne ke liye
- Profit earning ke liye
- Risk avoid karne ke liye

Easy Explanation

Company ke paas many ideas ho sakte hain:

- mobile app
- website
- factory
- new product

Lekin company wahi project select karegi jisme demand, profit aur resources available ho.

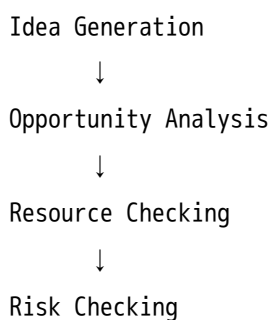
Sources of Project Ideas

Source	Example
Market Demand	Students need online notes
Government Policy	Solar energy project
Technology Change	AI-based app
Customer Feedback	New feature request
Competition	Better service launch

Step-by-Step Working

1. Ideas collect karo
2. Market opportunity check karo
3. Resources check karo
4. Cost estimate karo
5. Risk analyze karo
6. Best project select karo

Flow

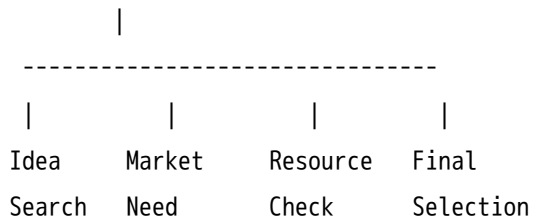




Project Selection

Diagram

Project Identification



Advantages

- Best project selection
- Profit chances badhte hain
- Risk kam hota hai
- Resources ka proper use hota hai

Disadvantages

- Wrong idea select hone ka risk
- Data collection difficult
- Future uncertainty

Important Keywords

Idea Generation, Opportunity Analysis, Resource Availability, Project Selection, Market Need

Conclusion

Project identification project management ka starting point hai. Correct project identification se project success ke chances increase hote hain.

6. Project Characteristics

Introduction

Project ke kuch special features hote hain jo usse routine work se different banate hain.

Definition

Project characteristics are the basic features that define the nature, scope and structure of a project.

Main Characteristics

Characteristic	Meaning
Specific Objective	Clear goal hota hai
Temporary Nature	Start and end fixed
Unique Output	Result unique hota hai
Resource Requirement	Men, money, material chahiye
Risk Involved	Uncertainty hoti hai
Interrelated Activities	Tasks connected hote hain
Budget Constraint	Limited money hota hai
Time Constraint	Deadline hoti hai

Easy Explanation

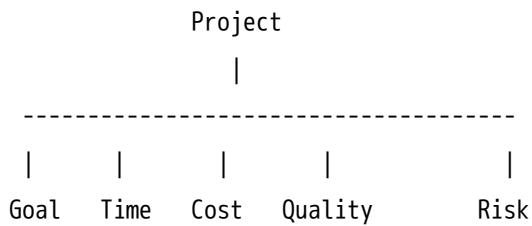
Project ek normal daily work nahi hota. Project special goal ke liye hota hai. Jaise:

- bridge banana
- app develop karna

- website launch karna

In sabka start, end, budget aur target fixed hota hai.

Diagram



Real-Life Analogy

College fest organize karna ek project hai because:

- date fixed hoti hai
- budget fixed hota hai
- team hoti hai
- tasks divide hote hain
- final event output hota hai

Advantages of Understanding Characteristics

- Project planning easy hoti hai
- Team roles clear hote hain
- Time and cost control hota hai
- Risk manage hota hai

Important Keywords

Objective, Temporary, Unique, Resource Allocation, Risk, Budget, Time Constraint, Quality

Conclusion

Project characteristics help managers understand how project should be planned, controlled and completed successfully.

7. Project Cost Estimation

Introduction

Project Cost Estimation ka matlab hai project complete karne ke liye required total money ka estimate banana.

Definition

Project Cost Estimation is the process of predicting the total cost required for completing a project successfully.

Why It Is Needed

- Budget banane ke liye
- Funds arrange karne ke liye
- Cost control ke liye
- Profit calculate karne ke liye

Easy Explanation

Agar website project banana hai to cost include hogi:

- developer cost
- domain cost
- hosting cost
- design cost
- maintenance cost

In sabka total estimate project cost estimation hai.

Types of Cost

Cost Type	Meaning
Fixed Cost	Constant cost
Variable Cost	Output ke saath change hota hai
Direct Cost	Direct project se related
Indirect Cost	Office/admin cost
Operating Cost	Running cost
Maintenance Cost	Future repair/support cost

Step-by-Step Working

1. Project activities identify karo
2. Required resources list karo
3. Labor cost calculate karo
4. Material cost calculate karo
5. Machine/software cost add karo
6. Miscellaneous cost add karo
7. Contingency cost add karo
8. Total project cost nikalo

Flow

Activities



Resources



Labor Cost



Material Cost

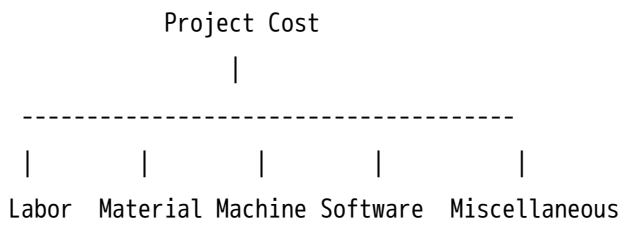


Other Cost



Total Estimate

Diagram



Example

Item	Cost
Developer	₹20,000
Domain	₹1,000
Hosting	₹3,000
Design	₹5,000
Testing	₹2,000

Total Cost = ₹31,000

Advantages

- Budget planning strong hoti hai
- Overspending avoid hota hai
- Financial control improve hota hai
- Profit planning easy hoti hai

Disadvantages

- Exact cost predict karna difficult
- Market price change ho sakti hai
- Wrong estimation se project loss ho sakta hai

Important Keywords

Budgeting, Direct Cost, Indirect Cost, Fixed Cost, Variable Cost, Contingency Cost

Conclusion

Project cost estimation project planning ka important part hai. It helps in arranging funds and controlling project expenses.

8. Financial Appraisal

Introduction

Financial Appraisal ka matlab hai project financially profitable hai ya nahi ye check karna.

Definition

Financial Appraisal is the process of evaluating the financial viability, profitability and return of a proposed project.

Why It Is Needed

- Investment safe hai ya nahi
- Project profit dega ya nahi
- Cost recover hogi ya nahi
- Financial risk kitna hai

Easy Explanation

Agar project me ₹1 lakh lag rahe hain, to company check karegi:

- kitne time me paisa recover hoga?
- profit kitna milega?
- risk kitna hai?

Ye financial appraisal hai.

Important Techniques

Technique	Meaning
Payback Period	Investment recover hone ka time
NPV	Present value of cash flows
IRR	Return rate
Profitability Index	Benefit-cost comparison
Break-even Analysis	No profit no loss point

Step-by-Step Working

1. Initial investment calculate karo
2. Expected cash inflow estimate karo
3. Operating cost subtract karo
4. Profit calculate karo
5. Payback period find karo
6. Project accept/reject decision lo

Flow

Investment

↓

Cash Inflow Estimate

↓

Cost Deduction

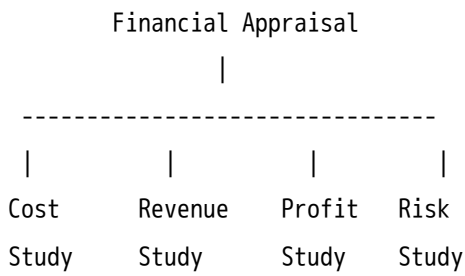
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Profit Calculation



Financial Decision

Diagram



Advantages

- Investment decision easy hota hai
- Profitability pata chalti hai
- Financial risk kam hota hai
- Investor confidence increase hota hai

Disadvantages

- Future cash flow uncertain hota hai
- Calculation complex ho sakti hai
- Inflation affect kar sakta hai

Important Keywords

Profitability, Cash Inflow, Investment, Financial Viability, NPV, IRR, Payback Period

Conclusion

Financial appraisal project ko financial point of view se judge karta hai. Isse pata chalta hai ki project me investment karna beneficial hai ya nahi.

9. Payback Period

Introduction

Payback Period batata hai ki initial investment recover hone me kitna time lagega.

Definition

Payback Period is the time required to recover the initial investment from the annual cash inflows of a project.

Formula

$$\text{Payback Period} = \frac{\text{Initial Investment}}{\text{Annual Cash Inflow}}$$
$$\text{Payback Period} = \frac{\text{Annual Cash Inflow}}{\text{Initial Investment}}$$

Why It Is Needed

- Investment recovery time pata karne ke liye
- Risk compare karne ke liye
- Quick decision making ke liye

Easy Explanation

Agar aapne ₹1,00,000 invest kiya aur har year ₹25,000 profit aa raha hai, to paisa 4 years me recover hoga.

Example

Initial Investment = ₹1,00,000

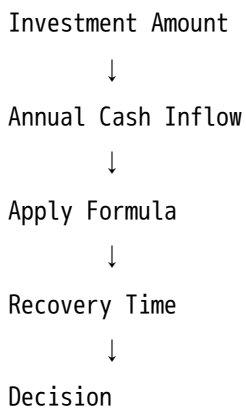
Annual Cash Inflow = ₹25,000

Payback Period = $1,00,000 / 25,000 = 4 \text{ years}$

Step-by-Step Working

1. Initial investment note karo
2. Annual cash inflow find karo
3. Formula apply karo
4. Recovery time calculate karo
5. Lower payback period wale project ko prefer karo

Flow



Diagram

Year 0 Year 1 Year 2 Year 3 Year 4
₹1,00,000 → ₹25,000 → ₹25,000 → ₹25,000 → ₹25,000
Investment recovered in 4 years

Advantages

- Simple method
- Easy calculation
- Useful for quick decision
- Risky projects me helpful

Disadvantages

- Time value of money ignore karta hai
- Payback ke baad profit ignore karta hai
- Long-term profitability nahi batata

Important Keywords

Initial Investment, Annual Cash Inflow, Recovery Period, Short Payback, Investment Decision

Conclusion

Payback period ek simple financial appraisal method hai. It tells how quickly investment will be recovered.

Difference Table: Feasibility Study vs Financial Appraisal

Basis	Feasibility Study	Financial Appraisal
Meaning	Overall project possibility check	Financial profitability check
Scope	Broad	Narrow
Includes	Technical, legal, market, cost	Cost, profit, cash flow
Purpose	Project possible hai ya nahi	Project profitable hai ya nahi

Basis	Feasibility Study	Financial Appraisal
Stage	Initial stage	After cost/revenue estimate

Difference Table: Market Analysis vs Demand Forecasting

Basis	Market Analysis	Demand Forecasting
Meaning	Complete market study	Future demand estimate
Focus	Customers, competitors, price	Future sales/demand
Data	Market conditions	Past + present data
Use	Market decision	Production and sales planning



Most Important 7-Mark Questions

1. Explain feasibility study with types.
2. Explain market analysis in project management.
3. What is demand forecasting? Explain methods.
4. Explain project identification process.
5. Explain characteristics of project.
6. Explain project cost estimation.
7. Explain payback period with example.
8. Explain financial appraisal.



Most Important 14-Mark Questions

1. Explain feasibility study in detail with types, advantages and diagram.
2. Explain market and demand analysis with forecasting methods.
3. Explain project cost estimation and financial appraisal in detail.
4. Explain project identification and characteristics of project.

5. Explain payback period method with merits and demerits.

PYQ-Based Expected Questions

Very High Probability

- Feasibility Study
- Types of Feasibility
- Market Analysis
- Financial Appraisal
- Payback Period

High Probability

- Project Cost Estimation
- Demand Forecasting
- Project Characteristics

Medium Probability

- Project Identification
 - Difference between feasibility study and financial appraisal
 - Cost types
-

One-Night Revision Notes

Must Learn Keywords

Topic	Keywords
Feasibility	Viability, Risk, Practicality
Market Analysis	Customer, Demand, Competitor

Topic	Keywords
Demand Forecasting	Future Demand, Trend, Survey
Cost Estimation	Budget, Direct Cost, Indirect Cost
Financial Appraisal	Profitability, Cash Flow, ROI
Payback Period	Investment Recovery Time

Must Draw Diagrams

1. Feasibility study types diagram
2. Market analysis diagram
3. Cost estimation diagram
4. Financial appraisal flowchart
5. Payback period timeline

Smart Study Plan

2-Hour Plan

Time	Study
30 min	Feasibility Study + Types
25 min	Market Analysis
20 min	Demand Forecasting
25 min	Cost Estimation + Financial Appraisal
20 min	Payback Period + Revision

5-Hour Plan

Time	Work
1 hour	Feasibility Study
1 hour	Market + Demand
1 hour	Cost Estimation

Time	Work
1 hour	Financial Appraisal
1 hour	PYQ + diagrams

One-Night Priority Order

1. Feasibility Study
 2. Types of Feasibility
 3. Market Analysis
 4. Financial Appraisal
 5. Payback Period
 6. Cost Estimation
 7. Demand Forecasting
 8. Project Identification
 9. Project Characteristics
-

Memory Tricks

Feasibility Types

TEOLS

- T = Technical
- E = Economic
- O = Operational
- L = Legal
- S = Schedule

Market Analysis

CDPC

- C = Customer

- D = Demand
- P = Price
- C = Competition

Cost Estimation

LMSM

- L = Labor
- M = Material
- S = Software
- M = Miscellaneous

Financial Appraisal

ICPR

- I = Investment
 - C = Cash inflow
 - P = Profit
 - R = Recovery
-



Topper Answer Writing Tips

1. Start every answer with definition.
2. Draw diagram after introduction.
3. Use headings: meaning, need, steps, advantages, conclusion.
4. Write real-life example to increase answer quality.
5. Underline keywords like **viability**, **profitability**, **demand forecasting**, **cost estimation**.
6. For 14 marks, always add table + diagram + conclusion.
7. Write answers in points, not big paragraphs.
8. End every answer with 2–3 line conclusion.

