

Project Business Analysis

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PMG 461
Bachelor of Project Management

Lecture 9



Advanced Tools and Techniques

Lecture 9

PMG 461

Project Business Analysis

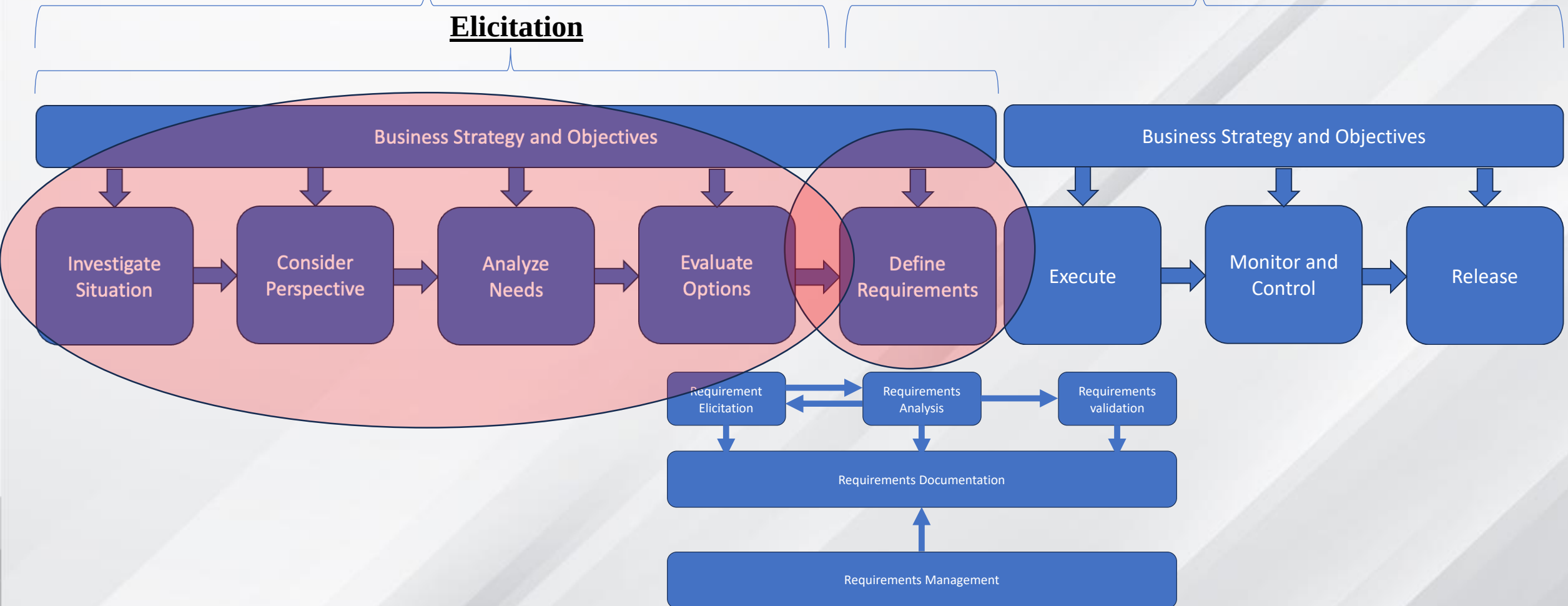
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In Previous Lectures

Pre-Project

Project

Elicitation



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What we will cover

1. Developing a Business Case
2. Defining the problem, Current and Future States
3. Evaluating Alternatives

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Developing a Business Case



Business Case

A documented economic feasibility study used to establish the validity of the benefits of a project (aimed to solve a problem or capture an opportunity) and that is used as a basis for the authorization of further project management activities.

- Once Approved:
 - Allocate Budget for project
 - Appoint Project Manager
 - Develop Charter

Components of a Business Case (1/2)

•Executive Summary

- Concise overview of key points and conclusions.

•Problem or Opportunity

- Context and background information.
- Problem or opportunity being addressed

•Business Objectives

- Objectives and alignment with organizational goals.
- Measurable, realistic goals.

•Alternatives

- What options or alternatives have you considered
- Alternatives Evaluation (Market, Technical, Operational, Financial)

•Benefits

- Tangible (ex. Revenue increase, Profitability growth, quality improvement)
- Intangibles (ex. Customer Satisfaction, Brand Image)

•Costs

- Upfront Costs (project costs or capital costs)
- On-going costs (operational costs)

Components of a Business Case (2/2)

•Financial Analysis

- Cost Benefit Analysis
- Cash flow projections
- ROI, NPV, IRR, Payback period)

•Risks, Assumptions and Constraints

- Associated risks, sensitivity analysis
- Any assumptions made or imposed constraints

•Implementation Plan

- Timelines, milestones, resources, responsibilities.

•Recommendation

- Clear decision based on analysis.

Business Analyst Role in Business Case

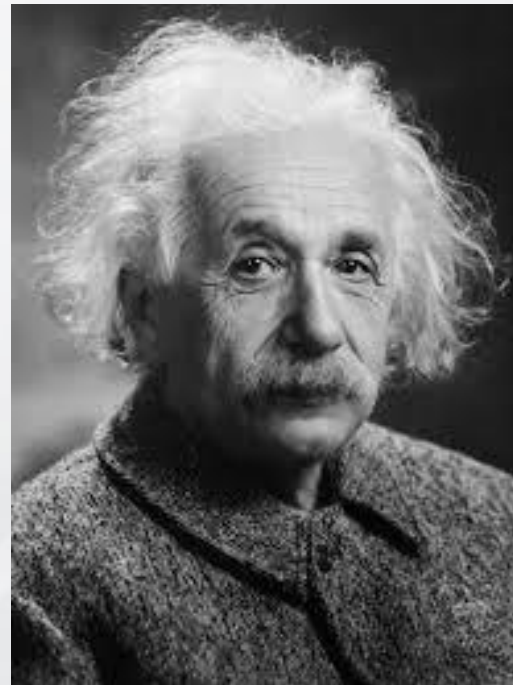
- Elicitation: Understanding the situation
- Defining the problem
- Determining the required objectives
- Identifying options
- Analyzing options (Market, Technical, Operational, Financial)
- Perform Cost-Benefit Analysis
- Evaluate Options and propose Optimal Option

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Defining the Problem, Current and Future States



“If I had an hour to solve a problem, I’d spend 55 minutes thinking about the problem and 5 minutes thinking about solutions.”



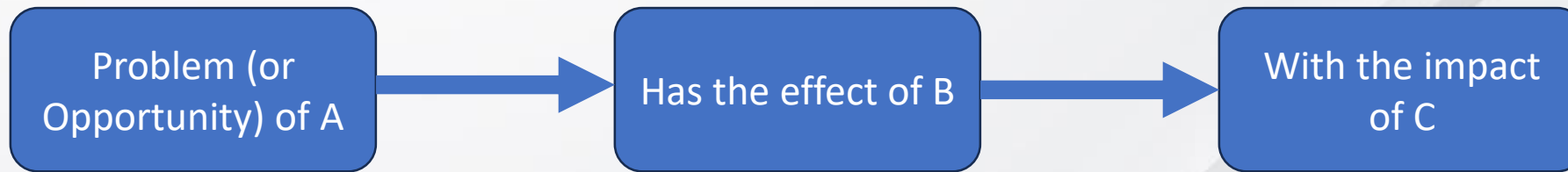
-Albert Einstein

Understanding the Situation

(Elicit information relevant to the situation)



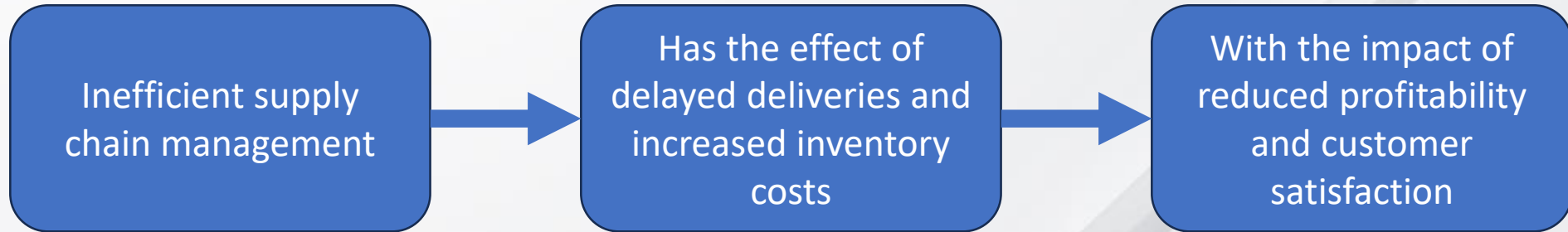
Situation (or problem) Statement



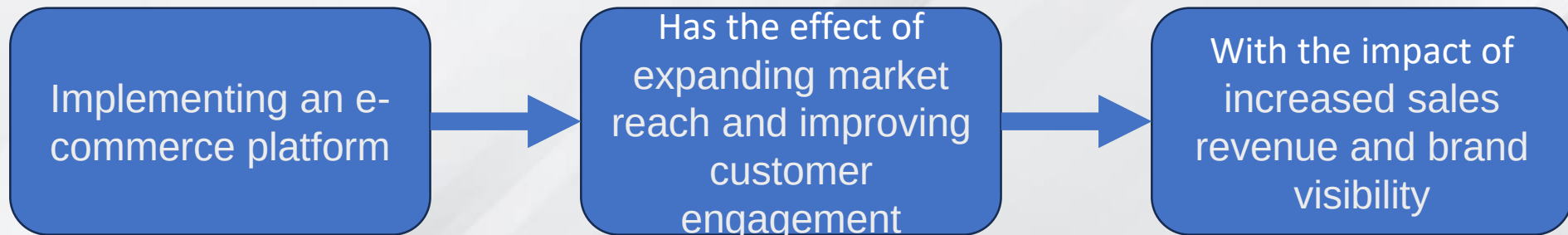
Objective statement about a problem or opportunity that includes, the situation facing the organization, its direct effect, and business impact (or result).

Examples

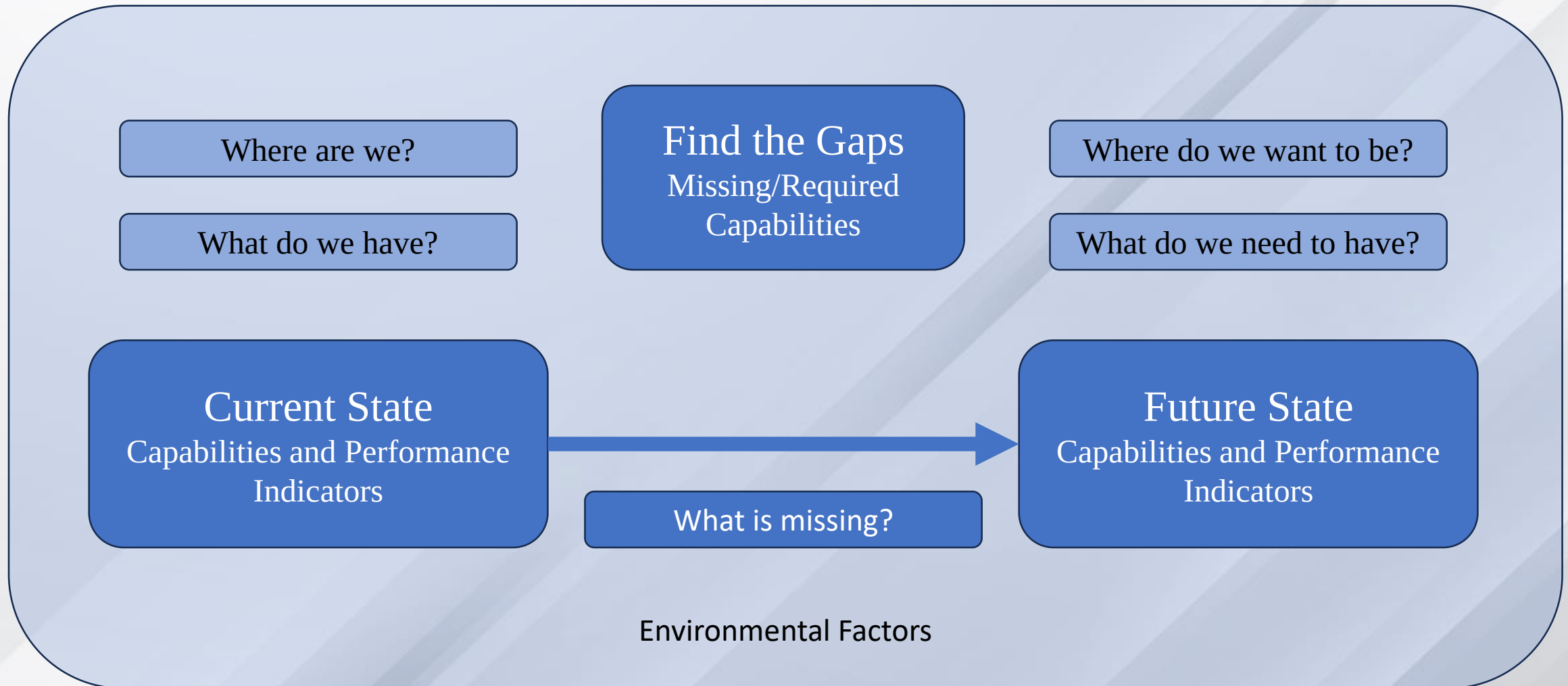
Problem



Opportunity



Gap Analysis



How to find the Gaps?

•Determine Area for Analysis

- Based on situation statement and root causes.

•Identify Internal and External Factors

- Internal and external factors using methods like PESTLE SWOT, or CATWOE.

•Analyze Current State

- Use historical data to set performance standards and analyze performance in terms of processes, people capabilities, and trends

•Define Future State

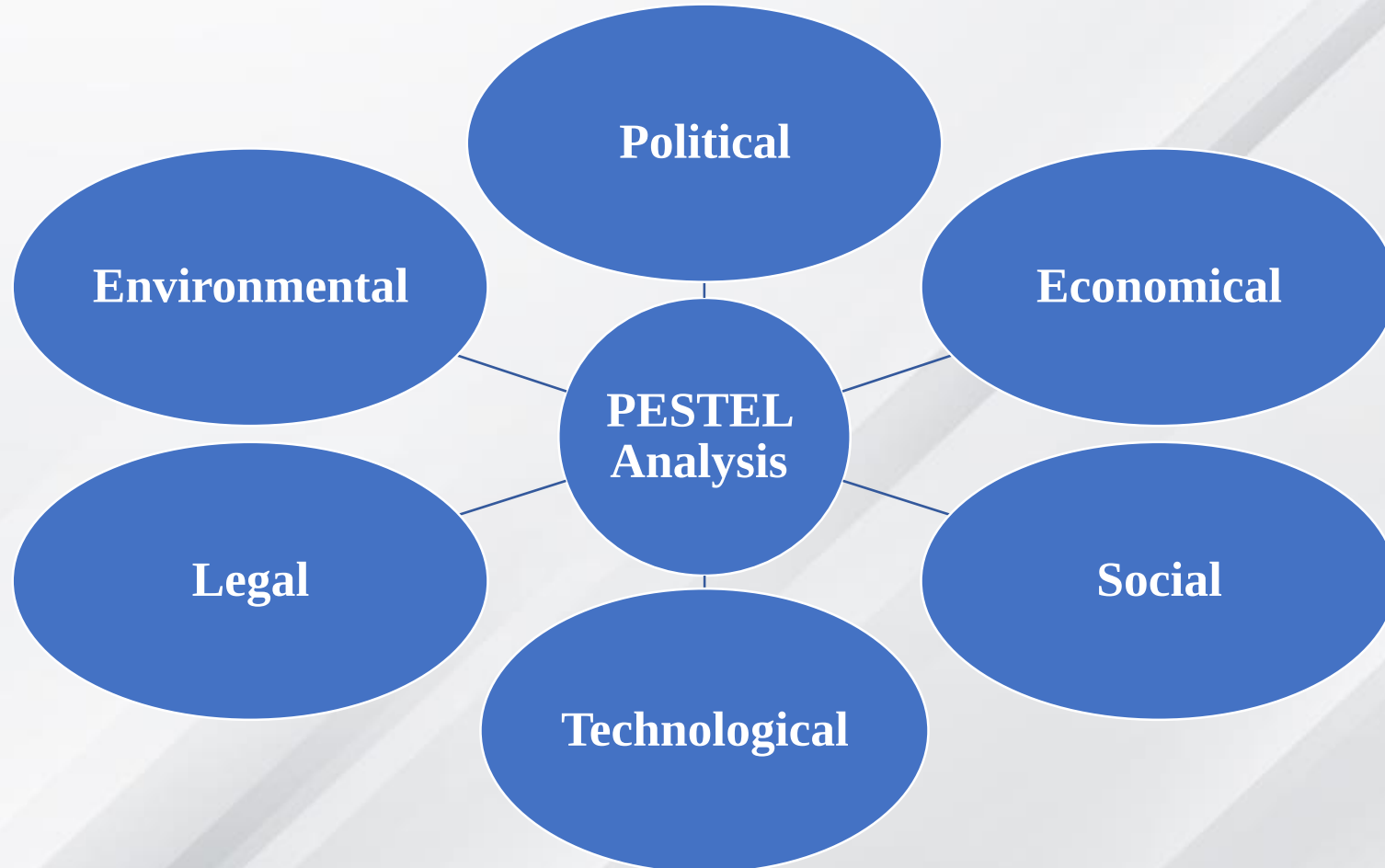
- Identify desired capabilities and performance indicators.
- Capability table to Categorize current and desired capabilities.

•Compare Current State to Future State •(Gap Analysis)

- Compare and quantify the gap.
- Assess whether business requirements are met.
- Determine steps to meet objectives

PESTLE Analysis

A framework to help organizations assess their broad environment
An examination of the political, economic, sociocultural, technological, legal and environmental issues in the external business environment.



MOST Analysis

- Examines current Mission, Objectives, Strategy, and Tactics.
- Checks for Clarity and support inside the organization.

Mission: a statement declaring what business the organization is in, and what it is intending to achieve.

Objectives: the goals against which the organization's achievements can be measured.

Strategy: the approach that is going to be taken by the organization in order to achieve the objectives and mission.

Tactics: the detailed means by which the strategy will be implemented.

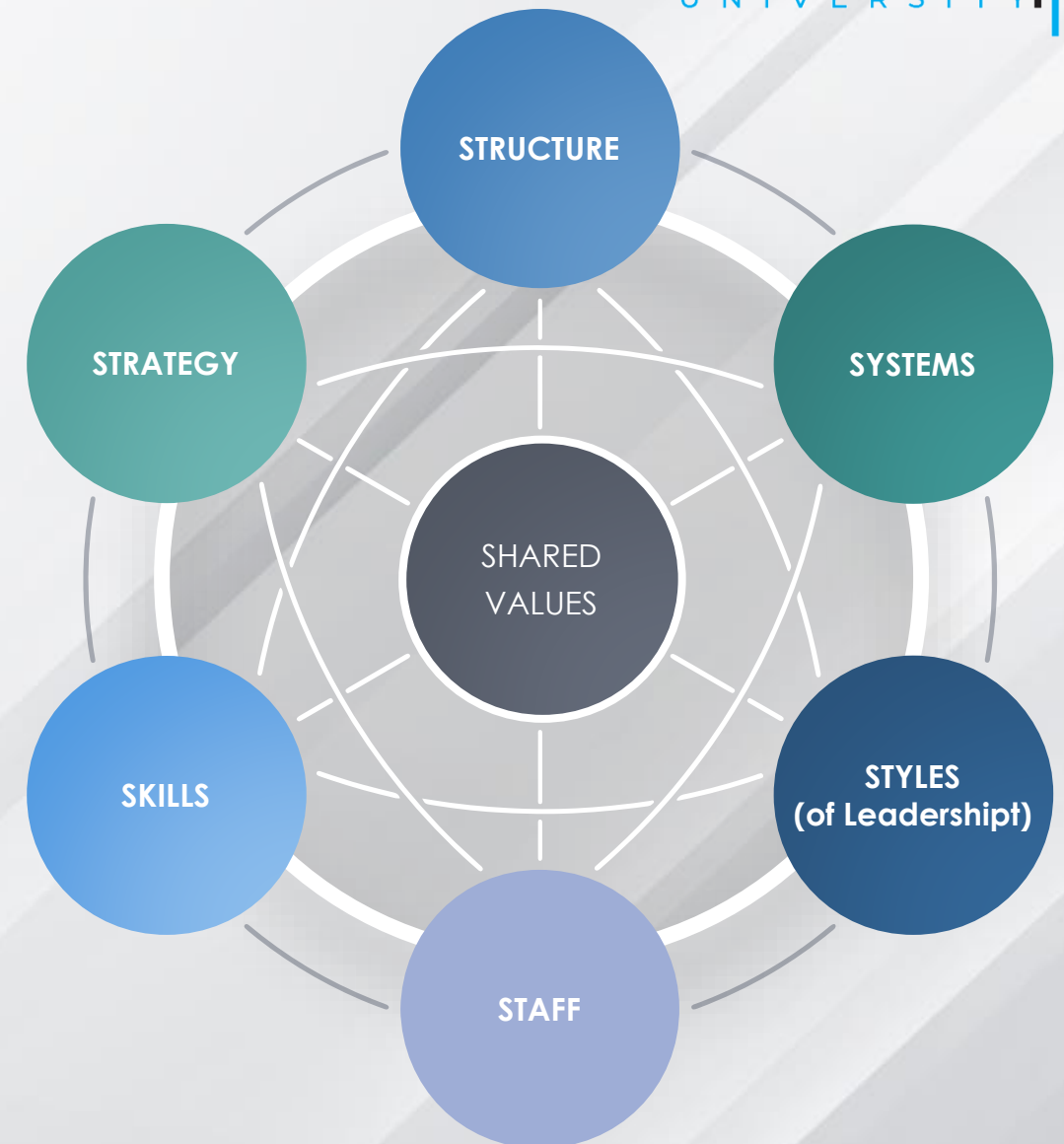
SWOT Analysis

- A SWOT analysis generates information that is helpful in matching a company's goals, programs and capacities to the environment.
- It can identify strategic areas for change.
- Analyzes the external and internal environments.
 - Strengths and Weaknesses are Internal
 - Opportunities and Threats are External

S	Strengths • Things you are good at • Experience, knowledge • Unique characteristics • Resources • Geographical location • Competence, capabilities • Quality, reputation • Flexibility on Product, Pricing, Distribution	W	Weaknesses • Things you need to improve • Gap in skills, knowledge • Financial issues • Market awareness and reputation • Right people doing the right job • Poor location • Leadership and Management issues • Staff motivation and involvement
O	Opportunities • Strategic alliances, acquisitions • Diversify the business • Take advantage of new trends (PESTLE) • New Product Development • Enter new markets • Reduce costs • Be faster, better, easier, more stylish, • Innovation an technology development	T	Threats • Change in the environment (PESTLE). • Loss af major customers. • Raw material, energy and transport costs • Strong competition • Competitors new products and innovation • Change in technology • Fashion • Seasonality

Mckinsey 7s Framework

- Organization is made up of 7 interacting elements.
- These components might need to change to fill the gap between current and future state.
- Analyze the 7 components and determine changes needed to fill the gap.
- **Hard Elements:** Strategy, Structure, and Systems
- **Soft Elements:** Shared Values, Skills, Style, Staff



Using Mckinsey 7s to Determine Solution

- What should we do to solve the specific business problem?
- What structure do we need to execute the solution?
- What business system do we need to use or implement in the future state
- What leadership style and cultural qualities will help us to achieve the future state?
- How should staff help managers to achieve the future state?
- What are the specific skills that we need to develop?
- Which principles need to be modified in the future state?

Project Objectives Should Align with Business Objectives

Example	Project Objectives	Business Objectives
Increase Revenue	Launch a new product line.	Increase overall sales revenue by X%.
Customer Satisfaction	Implement a customer feedback system.	Achieve a customer satisfaction rating of X%.
Reduce Operation Costs	Implement process automation in manufacturing.	Reduce manufacturing costs by X% within the next year.
Enhance Brand Awareness	Launch a marketing campaign targeting new demographics.	Increase brand recognition in the target market by X%.
Expand Market Reach	Open new retail locations in strategic locations.	Increase market share in specific regions by X%.

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Evaluating Alternatives



Options and Alternates

- An Option or alternate represents a possible proposed solution.
- For each option or alternate we should elicit information, gather data and analyze it.
- This might includes:
 - Technical Analysis
 - Operational Analysis
 - Market Analysis
 - Financial Analysis
- Then we compare all options against each other and make-decision about the optimal option to propose it.

Components of Market Analysis

•Introduction

- Overview of the market analysis study.
- Purpose and objectives of the study.
- Scope and methodology.

1.Industry Overview

- Description of the industry and its key segments.
- Market size, growth trends, and projections.
- Key drivers and challenges affecting the industry.

1.Market Segmentation

- Identification and analysis of market segments.
- Demographic, geographic, psychographic, and behavioral factors influencing segmentation.
- Size and growth potential of each segment.

1.Competitor Analysis

- Identification of major competitors in the market.
- Assessment of competitors' strengths, weaknesses, opportunities, and threats (SWOT analysis).
- Analysis of competitors' market share, pricing strategies, distribution channels, and marketing tactics.

1.Customer Analysis

- Identification of target customer demographics and characteristics.
- Assessment of customer needs, preferences, and buying behavior.
- Analysis of customer satisfaction levels and loyalty.

1.Market Trends and Opportunities

- Identification and analysis of current market trends.
- Assessment of emerging opportunities and threats.
- Analysis of technological advancements, regulatory changes, and other factors impacting the market.

1.Market Entry Strategies

- Evaluation of potential strategies (e.g., product differentiation, pricing strategies, distribution channels).
- Assessment of risks and challenges associated with market entry.
- Recommendation of the most suitable market entry approach based on the analysis.

1.Conclusion

- Summary of key findings from the market analysis study.
- Implications for business strategy and decision-making.
- Recommendations for future actions and areas for further research

Components of Operational Analysis

•Introduction

- Overview of the operational analysis study.
- Purpose and objectives of the analysis, scope and methodology.

•Organizational Overview

- Description of the organization's structure, functions, operations, key departments and their roles.
- Mission, vision, and strategic goals of the organization.

•Process Analysis

- Identification and documentation of key business processes.
- Analysis of process efficiency, effectiveness, and reliability, identification of bottlenecks, inefficiencies, and areas for improvement.

•Resource Analysis

- Assessment of human resources, including skills, capabilities, and training needs, analysis of physical resources, such as equipment, facilities, and technology.
- Evaluation of financial resources, including budget allocation and cost management.

•Performance Metrics

- Identification of key performance indicators (KPIs) for measuring operational performance. Analysis of KPI trends and benchmarks against industry standards or organizational goals.
- Assessment of performance gaps and areas needing improvement.

•Quality Management

- Evaluation of quality control processes and procedures, analysis of customer feedback, complaints, and satisfaction levels.
- Identification of opportunities for enhancing product or service quality.

•Supply Chain Analysis

- Assessment of supply chain processes, including procurement, logistics, and inventory management. Analysis of supplier relationships, lead times, and costs.
- Identification of risks and opportunities in the supply chain.

•Technology Integration

- Evaluation of technology infrastructure and systems. Analysis of IT capabilities, including software applications and data management. Identification of opportunities for leveraging technology to streamline operations and improve efficiency.

•Recommendations and Action Plan

- Summary of key findings and insights from the operational analysis. Recommendations for improving operational efficiency, effectiveness, and performance.
- Action plan with specific initiatives, timelines, and responsible parties.

•Conclusion

- Summary of the overall impact of the operational analysis on the organization.
- Closing remarks and next steps for implementing recommendations.

Components of Technical Analysis

•Introduction

- Overview of the technical analysis study. Purpose and objectives of the analysis. Scope and methodology.

•Technical Infrastructure Overview

- Description of the organization's technical infrastructure, including hardware, software, and network systems. Overview of key technical components and their roles in supporting business operations. Assessment of the current state of technical infrastructure.

•System Analysis

- Identification and evaluation of existing systems and applications used within the organization. Analysis of system functionality, performance, and reliability. Assessment of system integration and compatibility.

•Security Analysis

- Evaluation of cybersecurity measures and protocols. Analysis of vulnerabilities, threats, and risks to the organization's technical assets. Assessment of compliance with industry standards and regulations.

•Data Management

- Analysis of data storage, retrieval, and processing capabilities. Assessment of data quality, integrity, and security. Evaluation of data backup and recovery procedures.

•Technology Trends

- Identification of emerging technologies relevant to the organization's industry or operations. Analysis of potential impact and opportunities presented by new technologies. Assessment of readiness to adopt and integrate new technologies.

•Infrastructure Performance

- Measurement and analysis of infrastructure performance metrics, such as uptime, response time, and throughput. Identification of performance bottlenecks and areas for improvement. Assessment of scalability and capacity planning.

•IT Governance

- Evaluation of IT governance frameworks, policies, and procedures. Analysis of IT asset management practices and procedures. Assessment of compliance with regulatory requirements and industry best practices.

•Recommendations and Action Plan

- Summary of key findings and insights from the technical analysis. Recommendations for improving technical infrastructure, systems, and security. Development of an action plan with specific initiatives, timelines, and responsible parties.

•Conclusion

- Summary of the overall impact of the technical analysis on the organization. Importance of ongoing monitoring and maintenance of technical assets. Closing remarks and next steps for implementing recommendations.

Financial Analysis

Benefits $\rightarrow$ Annual Benefits $\times$ Years

Cost:

- Project Cost + Annual operating cost $\times$ Years

Time: Life in years for the product/solution

Financial Appraisal Methods

Method	Definition	Interpretation
Cost-Benefit Analysis	A method used to compare the costs of a project with the benefits it will generate over a specified period. It helps assess whether the benefits outweigh the costs.	Net Benefits = Benefits - Costs - Higher is better
Internal Rate of Return (IRR)	A metric used to estimate the profitability of an investment. It represents the discount rate at which the net present value (NPV) of all cash flows from the investment equals zero. Higher IRR indicates higher potential profitability.	% Higher is better
Return on Investment (ROI)	A measure used to evaluate the efficiency or profitability of an investment. It calculates the ratio of the net profit or benefits derived from an investment to the initial cost or investment amount.	% Higher is better
Net Present Value (NPV)	A method used to evaluate the profitability of an investment by calculating the present value of all future cash flows generated by the investment, discounted back to the present at a specified rate. A positive NPV indicates that the investment is expected to generate value.	Amount Higher is better
Payback Period	The time it takes for an investment to generate cash flows sufficient to recover the initial investment cost. It is a simple measure of investment risk and liquidity, with shorter payback periods generally considered more favorable.	Duration in years Lower is better

Examples

Example 1:

Method	Option A	Option B	Option C	Best Option
Cost-Benefit Ratio	5 M	7 M	10 M	Option C

Example 2:

Method	Option D	Option E	Option F	Best Option
Payback period	4.2	2.5	3.2	Option E

Example 3:

Method	Option G	Option H	Option I	Best Option
ROI	15%	12%	10%	Option G

Selecting the best alternate

- Evaluation can be based on several factors, i.e. financial and non-financial factors
- There are several Decision-Making methods, as:

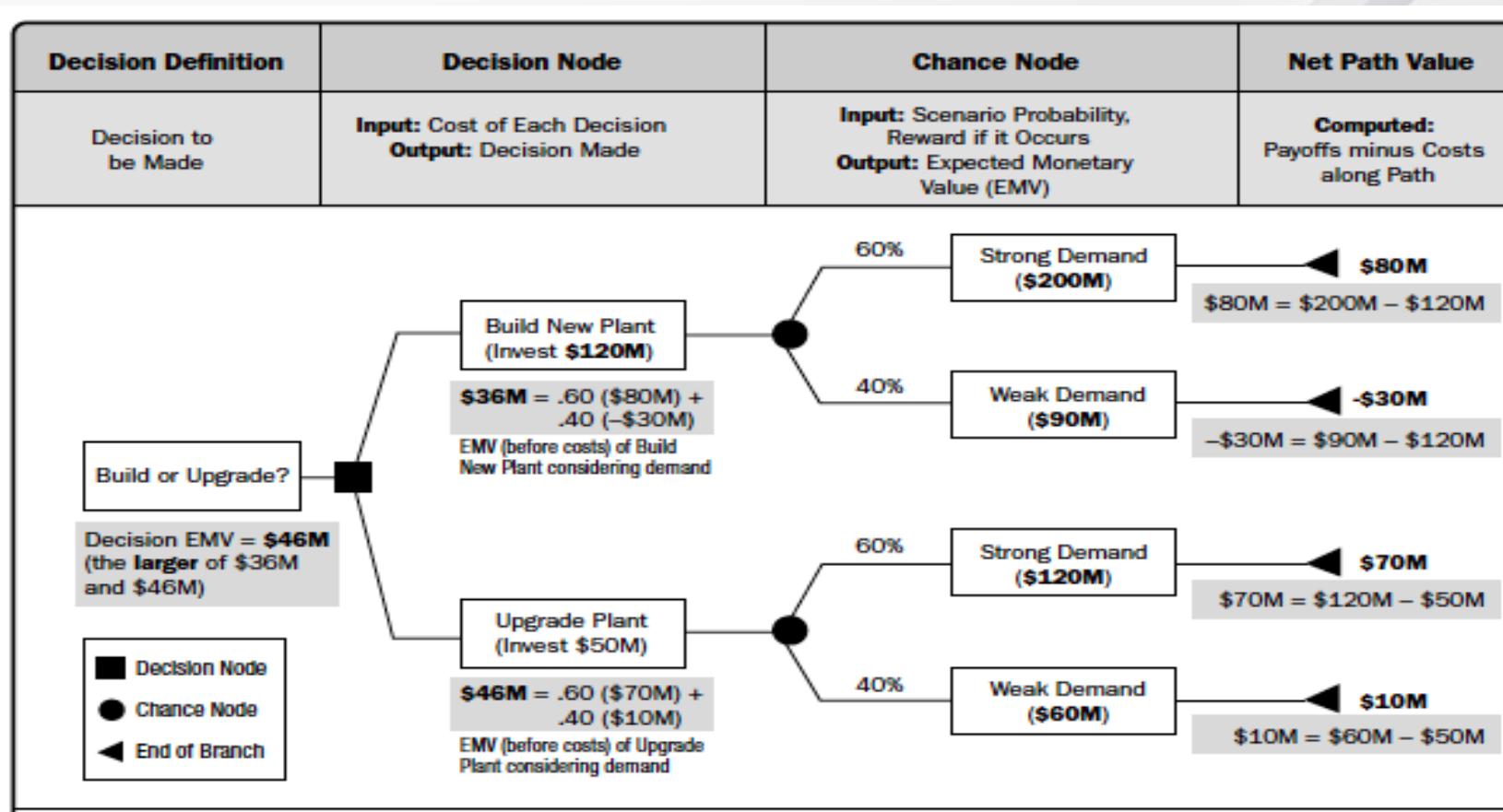
Decision-
Making Tree

Effort-Impact
Matrix

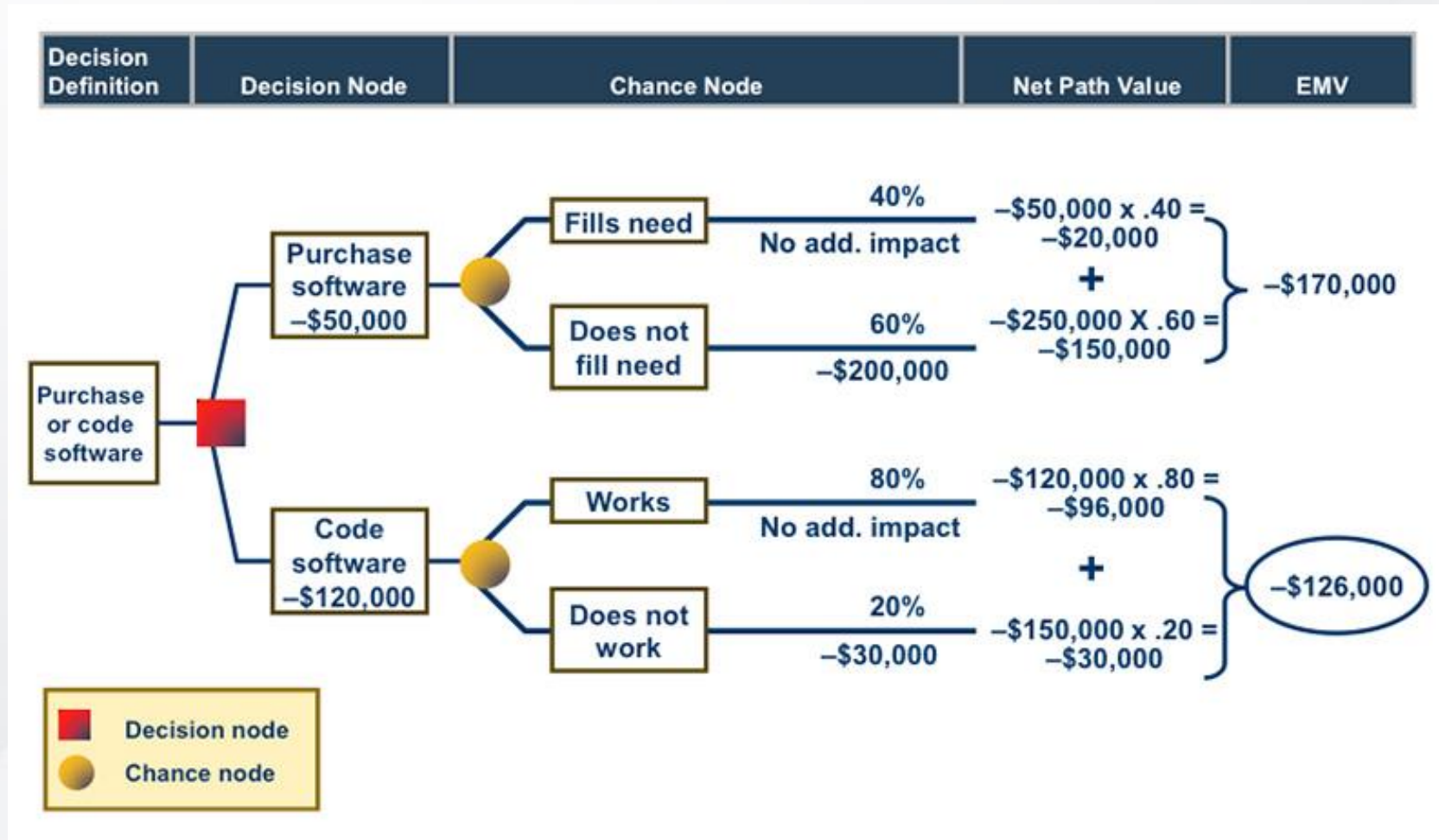
Decision
Making Matrix

Decision Trees

- A decision support tool that uses a graphical representation, similar to a tree or model, of decisions and their potential consequences, including their likelihood, resource costs, and benefits.
- Used when main concern is financials and considers uncertainties.



Decision Tree Example



Effort–Impact Matrix

- Evaluate alternatives based on only two elements:
 - Effort required to implement the alternative, and
 - Impact of applying the alternative on solving the problem
- Fast way to evaluate
- Can be objective or subjective

Impact	High	3	2	1
		4	3	2
	Low	5	4	3
		High	Effort	Low

Decision-Making Matrix

- Used to analyze, compare, and evaluate alternatives to assist in choosing the best one.
- Used in complex scenarios when there are more than one factor to consider
- Can be done in a workshop with multiple stakeholders
- Each factor can have a weight representing its importance

Option	Degree of solving problem	Cost	Time	Risks	Overall Score
	Rate 1-5	Rate 1-5	Rate 1-5	Rate 1-5	
Option A	3	5	4	3	15
Option B	4	2	4	2	12
Option C	4	4	4	5	17

Best Option

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Key Points

Business Analysts are getting more involved in pre-project phase to develop business case

We need to define the problem or opportunity clearly through problem statement

We perform gap analysis to define Current and future states, and solutions to close the gap.

Many strategic analysis tools can be used (PESTLE, SWOT, MOST, 7s)

We gather data and perform market, operational, technical and financial analysis to come up with options or alternates

We select the best alternate based on a decision-making model.

For Discussion Panel:

- Watch the video [“How to Write a Business Case - Project Management Training”](#)
- Reading, Chapter 3 “Strategy Analysis”
from textbook “Business Analysis”
by James Cadle, Malcolm Eva, Keith
Hindle, Debra Paul, 2nd edition



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**For Discussion Panel and
Next Lecture**



Thank You