Project Value and Risks

Project Value

1. **Direct and Indirect Value:**
    - Measures the positive and negative outcomes of a project and its outputs.
    - Metrics to Consider:
        - Revenues (both direct and indirect)
        - Social and environmental impact
        - Image and publicity
        - Know-how acquired
    - Related to the business model and sustainability of the project outputs.
2. **Sustainability:**
    - Refers to the ability to sustain the project and its outputs after the project ends.
    - Consider operational costs and the longevity of project outputs.
    - Important for determining if a project is worth starting.
    - Often overlooked if the project generates revenue during execution.
3. **Alignment with Strategic Objectives:**
    - Measures how crucial and relevant a project is for the organization.
    - Affects:
        - Priority assigned to the project
        - Resource allocation
        - Internal support
        - Opportunities for the project team post-project

Project Risks

1. **Resource Availability:**
    - Projects need human, financial, and technical resources at specific times.
    - Challenges in preempting resources can be mitigated by checking project needs.
    - Aspects to Consider:
        - Required resources
        - Current load and availability
        - Future load and availability projections
        - Project priority and importance
2. **Timing:**
    - Projects often have specific time-windows for delivering outputs.
    - Delivering too early or too late can render outputs useless.
    - Consider competition and timing for similar products.
3. **Technical Difficulty and Uncertainty:**
    - Success depends on solving technical challenges as they arise.
    - Identifying these challenges is crucial for assessing project risks.

Score Matrices

1. **Purpose and Overview:**
    - Score matrices provide a structured way to evaluate projects beyond financial metrics (like Payback, ROI, NPV).
    - They consider a standardized set of criteria and weights to assess various aspects of a project.
    - This qualitative evaluation helps in comparing projects based on how well they meet different criteria.
2. **Example of a Score Matrix:**
    - Criteria are evaluated on a scale or binary (e.g., YES/NO).
    - Each criterion has a weight indicating its importance.
    - The total score is the sum of the weighted values based on the project's performance against each criterion.
3. **Example Matrix:**

Factor	Value	Weight	SUM	Comment
The project aligns with strategic objectives	YES	2	2	
The project has a profit > 20%	NO	4	0	
Payback period < 2 years	YES	5	5	
Enlarges the customer base	YES	2	2	
The project requires a standard technology	NO	3	0	
The quality constraints are simple to meet	YES	1	1	
The timing is not too tight	NO	4	0	
We have skilled personnel to do the work	YES	5	5	
Total Score			15	

    - **Value:** Measures how well the project meets each criterion.
    - **Weight:** Indicates the importance of each criterion.
    - **SUM:** Total score based on the weighted values.
4. **Discussion:**
    - **Advantages:**
        - Simple and encourages objectivity.
        - Helps in discussing and evaluating project characteristics.
        - Broadens the range of evaluation and is not biased towards short-term projects.
    - **Disadvantages:**
        - May result in lengthy and less useful lists if not properly managed.
        - Without weight matrices, all factors might seem equally important.

5. **Caveat:**
    - Ensure that all factors either positively or negatively influence the decision or use scores with different signs to avoid biases.
6. **Example of a Bad Matrix:**

Factor	Value	Weight	SUM	Comment
The project has a profit > 20%	YES	3	3	
The project is highly risky	NO	3	0	
Total Score			3	Risky project is preferred

    - Here, a positive and negative factor affect the matrix similarly, which may lead to misleading evaluations.

SWOT Analysis

1. **Overview:**
    - SWOT Analysis is a systematic technique developed by Albert Humphrey to assess the feasibility of a project or develop achievable goals.
    - It involves evaluating four elements:
        - **Strengths**
        - **Weaknesses**
        - **Opportunities**
        - **Threats**
    - Typically presented in a 2x2 matrix.
2. **Factors to Consider:**
    - **Strengths:**
        - Competencies
        - Selling points
        - Resources and capabilities
    - **Weaknesses:**
        - Disadvantages
        - Methodological issues
        - Timing constraints
        - Capability gaps
    - **Opportunities:**
        - Market and industry trends
        - Weaknesses of competitors
        - Emerging technologies
    - **Threats:**
        - Market and industry trends

        - Competing technologies
        - Sustainability challenges
    - **Objective:**
        - Identify internal strengths and weaknesses and external opportunities and threats to make informed project decisions.

Stakeholder Analysis

1. **Goal:**
    - To understand who the project stakeholders are and their influence on the project.
2. **Techniques:**
    - One common technique uses a **2x2 matrix**:
        - **Power Dimension:** Measures the level of power a stakeholder can exert (Low or High).
        - **Interest Dimension:** Measures the level of interest a stakeholder has in the project (Negative or Positive).
    - This matrix helps in defining specific management strategies for different stakeholders based on their power and interest levels.

Assessing Sustainability

1. **Objective:**
    - To understand the operational costs and long-term viability of a project's outputs.
2. **Considerations:**
    - **Business Model:** How the project fits into the business model.
    - **Break-even Point:** The point at which the project's revenues cover its costs.
    - A preliminary sustainability analysis can assist in selecting among different project implementations.

Feasibility Study

1. **Purpose:**
    - To formally authorize a project and align it with organizational goals.
    - Serves as a basis for project selection and decision-making by management.
2. **Outputs:**
    - Ranges from a few to hundreds of pages, depending on complexity and formality.
3. **Goals:**
    - **Identify:**
        - Project goals
        - Project constraints

    - **Assess:**
        - Value and risks using various techniques
    - **Alignment:**
        - Ensure the project aligns with customer and organizational objectives
    - **Demonstrate:**
        - Achievability of project goals within quality, cost, and time constraints
4. **Feasibility Document Structure:**
    - **Statement of Work:** Describes what the project will accomplish.
    - **Business Objectives:** Includes the value of the project and relevant business model information.
    - **Project Budget:** Forecasts expenses and incomes.
    - **Project Milestones:** Rough schedule identifying key events.
    - **Stakeholder Analysis:** Overview of stakeholders involved.
    - **Project Risks:** Identifies potential risks associated with the project.
    - **Alternatives:** Evaluates possible alternatives, like make or buy decisions.
    - **Evaluation:** Uses techniques to evaluate the project and alternatives.
5. **Additional Considerations:**
    - **For the Client:** Helps understand short and long-term perspectives.
    - **For the Performing Organization:** Assists in deciding whether to proceed with the project.
    - **For the Project Manager:** Provides insight into whether the project is within their comfort zone and worth pursuing.

The Project Approval Process

1. **Steps:**
    - **Initial Request:** Identify a preliminary project manager.
    - **Feasibility Study Preparation:** The project manager prepares a feasibility study, which is agreed upon with the customer and key stakeholders.
    - **Submission for Authorization:** The feasibility study document is submitted for authorization.
    - **Formal Decision:** The document is analyzed, and a formal decision is made regarding the project.
    - **Appointment and Planning:** Upon approval, the project manager is officially appointed, and the project moves to the planning phase.