Chapter 2: Initiating Projects

1.1 How to get a project started

- Project initiation begins with the judicious selection of the organization's projects to align them with the organization's overall strategy.
- It describes how to evaluate and select projects that contribute to the organization's strategy and discusses the information needed as well as the management of risk during this process.
- The Project Manager," concerns the many roles of the project manager (PM), the multiple responsibilities, and some personal characteristics a project manager should possess.
- It also discusses the problems a PM faces when operating in a multicultural environment.
- Project Initiation covers a subject of critical importance to the PM that is almost universally ignored in project management texts: the art of negotiating for resources.
- It also describes some major sources of interpersonal conflict among members of the project team.

1.2 Selecting project strategically

The constraints of the organization force choices in all areas of operation, including project selection.

Time, financing, human resources, material, and skills are just a few of the top items on a long list of constrained organizational resources

Because of these limitations, project selection needs to be approached in a structured, strategic way.

Seven Techniques For Structured Project Selection

1. Financial Analysis
2. Strategic Alignment
3. Problem Solving
4. Taking Advantage Of Opportunities
5. Fulfilling Requirements
6. Time Frame
7. Weighted Scoring Model (Decision Matrix)

Financial Analysis:

Sometimes, the decision on which project to select comes down to only one thing – money. When this is the case, projects should be selected based on which option creates the most financial benefit for the organization.

The most common financial analysis tools are Return on Investment (ROI) and Payback Period.

ROI is a direct measure of the return of capital produced by a project relative to the amount of capital spent on or invested in a project. ROI is calculated with the following equation:

ROI = (Gain from Investment – Investment Cost) / Investment Cost

The payback period of a project examines how long a project will take in order to recover the amount of capital invested.

The simplest calculation for payback period is

Pay back period = amount of capital invested / amount generated by the project .

Using payback period, the project with the shortest time to recover invested capital should be selected.

Strategic Alignment:

Projects can be a powerful tool for achieving the strategic objectives of an organization.

When an organization has clearly defined strategic objectives, projects should be selected to help further, or deepen, that strategy.

If an organization is focused on innovation as a source of competitive advantage, research and development projects might be the best options to pick.

Problem Solving:

There are instances in organizations where conditions can be improved or situations resolved through the implementation of particular projects.

This is the concept of using projects to solve organizational problems.

When this is the case, projects are selected to remove hindrance and impediments to smooth, efficient, organizational operations.

Taking Advantage Of Opportunities :

Opportunities can be identified to further a number of different organizational goals, from increasing profits to entering new markets or developing new products and services.

But identified opportunities rarely take advantage of themselves.

Fulfilling Requirements:

In a dynamic business environment, the one constant is change. Industry, regulatory, and market conditions often create changing requirements.

When this is the case, new organizational projects are sometimes the best way to go about fulfilling new requirements.

Time Frame:

While selecting a project we must look at the time frame as it is an important point of consideration in project selection.

This can be considered in two ways; time of implementation and total project life cycle time. Time of implementation looks at when significant portions of the project are to be

implemented.

Weighted Scoring Model (Decision Matrix):

Weighted scoring models are useful when the decision on project selection comes down to not one, but several factors.

In this case, a weighted scoring model can be the best tool to examine, rate, and select among multiple options.

A weighted scoring model is developed for determining which factors are important to an organization in project selection.

Those factors are then assigned a relative level of importance or value (weight).

Then, the factors are examined and rated for each available project option under consideration, with the rating multiplied by the relative weight of the factor.

Weighting Criteria		Scores (0-100)			Weighted Scoring Model			
Criteria	Weight	Project 1	Project 2	Project 3		Project 1	Project 2	Project 3
Cost	60%	90	88	65	Cost	54	52,8	39
Location	25%	75	72	100	Location	18,75	18	25
Time	15%	74	95	77	Time	11,1	14,25	11,55
					TOTAL	83,85	85,05	75,55
					Highest Total Score = Project 2 (85,05)			

1.3 Project selection models (Numeric /Scoring Models and Non-numeric models)

- Project selection is only one of many decisions associated with project management.
- To deal with all of these problems, we use models.
- We need such models because they abstract the relevant issues about a problem from the mass of detail in which the problem is embedded.
- The model allows us to strip away almost all the reality from a problem, leaving only the relevant aspects of the "real" situation for us to deal with.
- This process of carving away the unwanted reality from the bones of a problem is called **modeling the problem.**
- The model represents the problem's structure, its form. We will use many models like graphs, analogies, diagrams, as well as flow graph and network models to help solve scheduling problems, and symbolic (mathematical) models for a number of purposes.
- **Non-Numeric and Numeric Project Selection Models**
  - **Non-Numeric Project Selection Models**
    1. **The Sacred Cow:** The senior and the powerful official in the company suggest the project in this case. The project is created as an immediate result of a bland approach for investigating about whatever the boss has proposed. The sacredness of the project reflects the fact that it will be continued until ended or until the boss himself announces the failure of the idea & ends it.
    2. **The Operating Necessity:** If a plant is threatened by the flood then it is not much complex to start a project for developing a protective desk. This is best example for the operating necessity. Potential projects are evaluated by using this criterion of project selection by the XYZ steel corporation. Certain questions come in front if the project is needed in order to keep the system functioning like is the estimated cost of the project is effective for the system? If the answer of such important question is yes, then the project costs should be analyzed to ensure that these are maintained as minimum and compatible with the success of the project. However the project should be financed.
    3. **The Competitive Necessity:** It is the desire to keep the competitive position of the company in the market. Precedence is taken by the operating necessity projects over competitive necessity projects regarding investment. But both of these types of project selection models are considered much useful & effective as compared to other selection models.
    4. **Comparative Benefit Model:** According to this selection model, there are several projects that are being considered by the organization. Those subset of the projects are selected by the senior management of the organization can provide most benefits to the company
    5. **Q-Sort Model:** The Q-Sort model is the one of the most straightforward techniques for ordering projects. According to their relative merits, the projects are first divided into three groups which are Good, Fair and Poor. The main group is further subdivided into the two types of fair-minus and fair-plus if any group has the has more than eight members.
  - **Numeric Project Selection Models (Profit/Profitability):** The profitability is

used as the only measure of acceptability by majority of organizations using different types of project selection models. Following are some of numeric models for project selection

1. **Payback Period:** The initial fixed investment in the project divided by the fore-casted annual net cash inflows from the project is referred to as payback period for the project. The number of years needed by the project to refund its initial fixed investment is reflected in the ratio of these quantities. For example suppose a project costs $200,000 to operate and has annual net cash inflows of $40,000. Then Payback Period = $200,000 / $40,000v = 5 Years
2. **Average Rate of Return:** The ratio of the average annual profit (either after or before taxes) to the average or initial investment in the project is referred to as the average rate of return. In the above mentioned example, suppose the average annual profits are $30,000 Average Rate of Return = $30,000 / $200,000 = 0.15
3. **Probability Index:** The net present value of all future expected cash flows divided by the initial investment is referred to as profitability index. Profitability index is also called the benefit-cost ratio. The project may be accepted, if this ratio is higher than 1.0.

1.4 Project portfolio process (PPP)

- Important inputs to this process are the organization's goals and strategies.
- We assume here that the organization has already identified its mission, goals, and strategies.
- It is done by some formal analytic method such as SWOT analysis (strengths, weaknesses, opportunities, threats), and that these are well known throughout the organization.
- The PPP can serve many purposes:
  1. To identify proposed projects that are not really projects and should be handled through other processes
  2. To prioritize the list of available projects
  3. To intentionally limit the number of overall projects being managed so the important projects get the resources and attention they need
  4. To identify projects that best fi t the organization's goals and strategy
  5. To identify projects that support multiple organizational goals and cross-reinforce other important projects
  6. To eliminate projects that incur excessive risk and/or cost
  7. To keep from overloading the organization's resource availability
  8. To balance the resources with the needs
  9. To balance short-, medium-, and long-term returns
- The steps in this process are:

1. Step 1: Establish a Project Council: The main purpose of the project council is to establish and articulate a strategic direction for those projects spanning internal or external boundaries of the organization, such as cross-departmental or joint venture.
2. Step 2: Identify Project Categories and Criteria: In this step, various project categories

are identified so the mix of projects funded by the organization will be spread appropriately across those areas making major contributions to the organization's goals. Based on the extent of product change and process change, they identified four separate categories of projects:

1. Derivative projects
2. Platform projects
3. Breakthrough projects
4. R&D projects

3. Step 3: Collect Project Data: For each existing and proposed project, assemble the data appropriate to that category's criteria. Be sure to update the data for ongoing projects and not just use the data from the previous evaluation. For cost data, use "activity based costs" rather than incremental costs
4. Step 4: Assess Resource Availability: Assess the availability of both internal and external resources, by type, department, and timing. Note that labor availability should be estimated conservatively, leaving time for vacations, personal needs, illness, holidays, and most important, regular functional (non- project)work.
5. Step 5: Reduce the Project and Criteria Set: In this step, multiple screens are employed to try to narrow down the number of competing projects. As noted earlier, the first screen is each project's support of the organization's goals.
6. Step 6: Prioritize the Projects within Categories: Apply the scores and criterion weights to rank the projects within each category. It is acceptable to hold some hard-to-measure criteria out for subjective evaluation, such as riskiness, or development of new knowledge.
7. Step 7: Select the Projects to Be Funded and Held in Reserve: The first task in this step is an important one: determining the mix of projects across the various categories (and aspects, if used) and time periods. Next, be sure to leave some percent (often 10–15 percent) of the organization's resource capacity free for new opportunities, crises in existing projects, errors in estimates, and so on.
8. Step 8: Implement the Process: The first task in this final step is to make the results of the PPP widely known, including the documented reasons for project cancellations, deferrals, and non-selection as was mentioned earlier.

1.5 Project proposal

- The set of documents submitted for evaluation is called the project proposal whether it is brief (a page or two) or extensive, and regardless of the formality with which it is presented.
- Several issues face firms preparing proposals, particularly firms in the aerospace, construction, defense, and consulting industries. These are:
- 1. Which projects should be bid on?
  2. How should the proposal-preparation process be organized and staffed?
  3. How much should be spent on preparing proposals for bids?
  4. How should the bid prices be set? What is the bidding strategy? Is it ethical?
- Generally, these decisions are made on the basis of their overall expected values, perhaps as reflected in a scoring model.
- In-house proposals submitted by a firm's personnel to that firm's top management do

not usually require the extensive treatment given to proposals submitted to outside clients or agencies such as the Department of Defense.

- For the Department of Defense, a proposal must be precisely structured to meet the requirements contained in the official Request for Proposal (RFP) or Request for Quotation (RFQ) more specifically, in the Technical Proposal Requirements (TPR) that is part of the RFP or RFQ.
- **The Technical Approach:** The proposal begins with a general description of the problem to be addressed or project to be undertaken. If the problem is complex, the major subsystems of the problem or project are noted, together with the organization's approach to each
- **The Implementation Plan:** The implementation plan for the project contains estimates of the time required, the cost, and the materials used. Each major subsystem of the project is listed along with estimates of its cost.
- **The Plan for Logistic Support and Administration:** The proposal includes a description of the ability of the proposer to supply the routine facilities, equipment, and skills needed during any project.
- **Past Experience:** All proposals are strengthened by including a section that describes the past experience of the proposing group. It contains a list of key project personnel together with their titles and qualifications