Chapter two

An Overview of Project cycle

A project passes through a number of life cycles called project cycle.

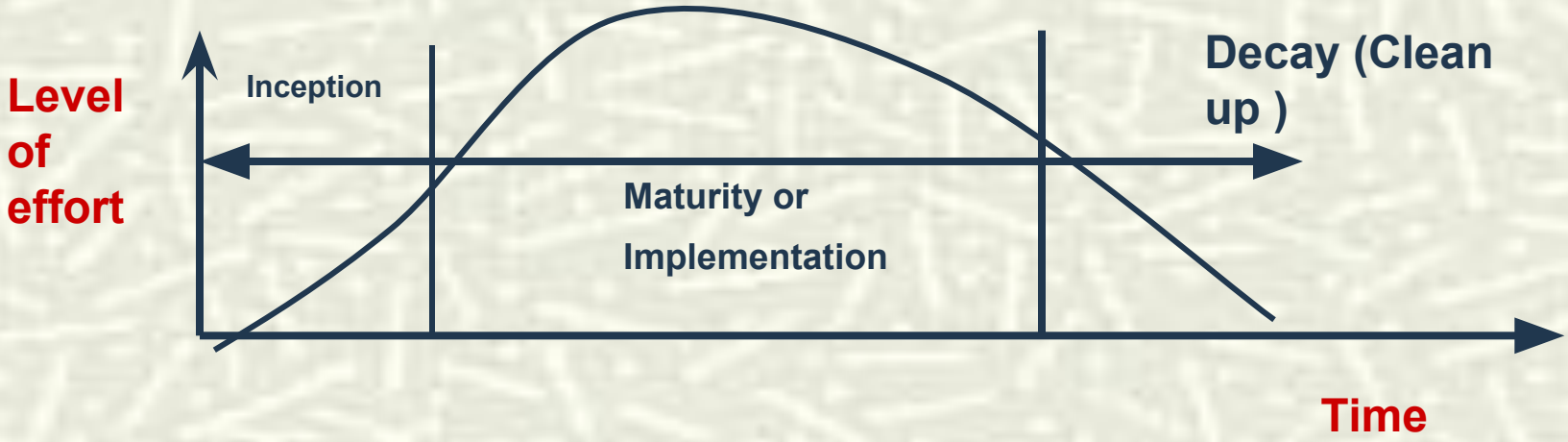
What is project cycle?

Project Cycle: Is the various stage through which project proceed from inception to implementation.

- It is a stage which project advance from inception to maturity stage

Project cycle (cont…)

- **Some authors (Choudhury 2005) presents the projects life cycle in to the life cycle curve**
- Inception (concept, definition, organizing etc)
- Maturity (implementation) (85%)
- Decay (clean up) (3%)



Project cycle (cont…)

A project cycle covers all the steps necessary to bring a project to the point where
  - **its technical,**
  - **economic and**
  - **financial feasibilities have been established and it is ready for appraisal.**
- Each stage follows the proceeding one and leads to the next
- These different phases are identified by different institutions and authors. Some of the phases as identified by different authors are,

An Overview of Project cycle (Cont…)

The Baum Cycle (World Bank Procedures)

- Baum (1970) model is the first basic model of a project cycle which has been adopted by the World Bank.
- According to this model a project cycle consists of the following five stages
  - Identification
  - Preparation
  - Appraisal and Selection
  - Implementation
  - Evaluation

An Overview of Project cycle (Cont…)

The European Commission/Europe Aid Approach

This approach consists of six phases and has been considered as the most recent approach developed as guidelines for development projects

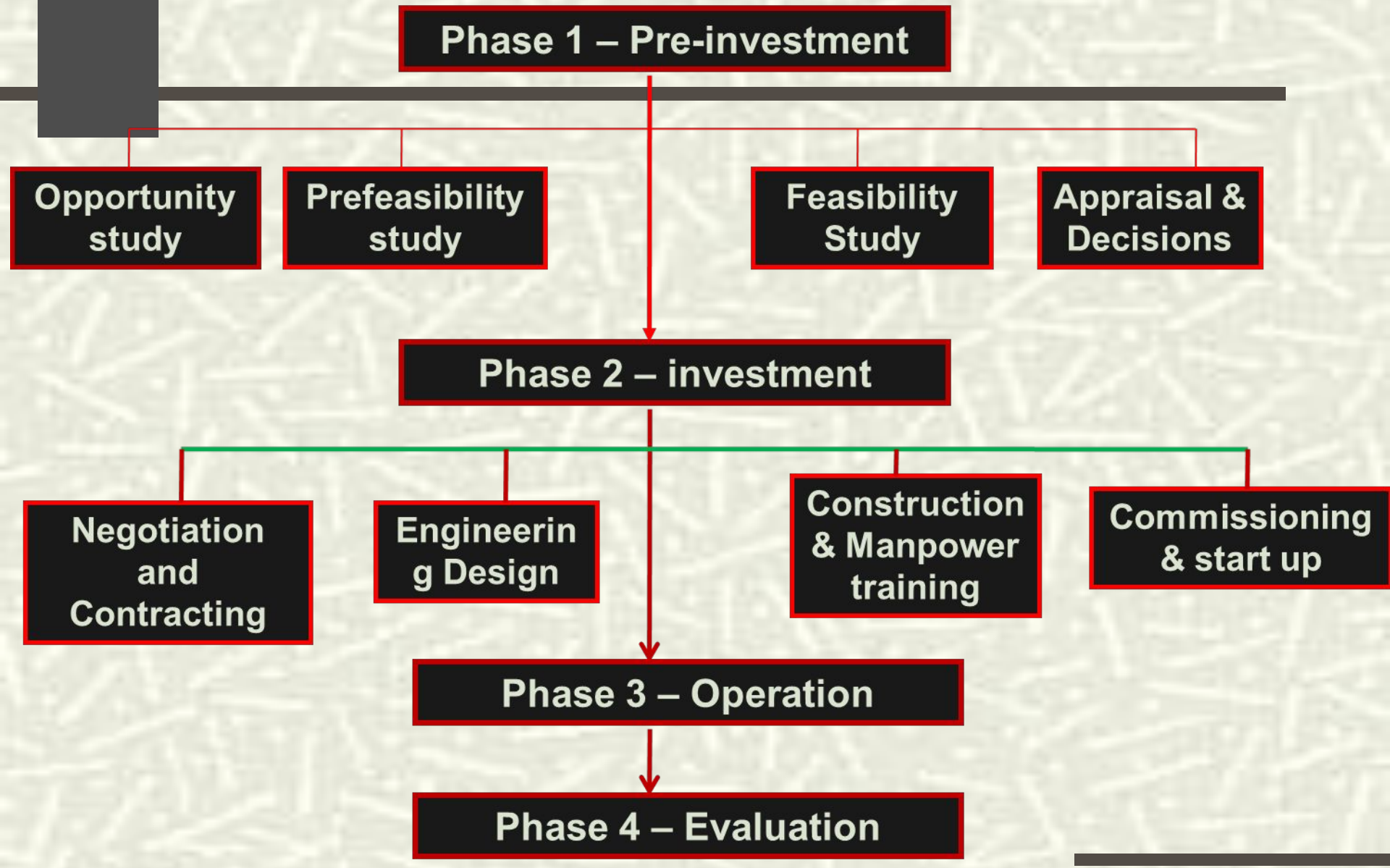
- Programming
- Identification
- Appraisal
- Financing
- Implementation
- Evaluation

An Overview of Project cycle (Cont…)

However, in most literature and guide books the stages or phases of projects are divided into six phases and this approach are preferred in this discussion:

- Identification
- Pre-feasibility study.
- Feasibility study
- Selection and project design
- Implementation.
- Ex-post evaluation

THE PROJECT CYCLE: UNIDO PHASES OF THE PROJECT CYCLE



THE PROJECT CYCLE:

1. Project Identification
   - Sources of Project ideas
   - Screening Projects
   - Project Selection
2. Project Preparation and Appraisal
   - Market analysis
   - Technical analysis
   - Financial Analysis and
   - Environmental analysis
3. Implementation phase
4. Follow-up and evaluation phase

I. Identification

Project starts by generating potential idea that can be converted into a meaningful project.

- Project identification involves finding project's idea, which could contribute towards achieving specified business/development objectives

- In many cases many projects start as a simple idea and later on it may grown up into a full-fledged project

Identification (Cont …)

- Identification of promising investment opportunities (projects) requires
  - imagination,
  - sensitivity to environmental changes,
  - And a realistic assessment of what the firm can do

Identification (Cont …)

If the project is a private project the initiating entity will define the

- concept,
- expectation and
- objectives of the project.

But, if the project is a public project, scrotal information is an important source to define the concept, expectation and objective of the project.

Identification (Cont …)

Generally, the idea for project may come from the following sources

- From the need to make profitable use of available resources (this is for resources based projects)
- Market based projects arise from an identified demand in home or overseas market
- Need based project may arise from the need of community (company) to make available some basic materials (services) requirements.

Identification (Cont …)

- Project ideas can also emanate from government policy and plans
- From technical specialists like, entrepreneurs and local leaders are also common sources of projects.
  - Technical specialists and entrepreneurs can identify many areas where they feel new investment might be profitable.

Identification (Cont …)

In general, the sources of project ideas can be broadly classified into,

1. Macro-level

- National policies, strategies, sectoral, sub - sectoral or regional plans
- General surveys,
  - resource potential surveys,
  - regional studies,
  - master plan and
  - statistical publications, which indicate directly or indirectly investment opportunities.

Identification (Cont …)

- Constraints on the development process due to shortage of essential infrastructure facilities
- Unusual events such as,
  - droughts,
  - floods,
  - earth – quakes, hostilities, etc
- From multilateral or bilateral development agencies and as a result of regional or international agreements in which the country participate

Identification (Cont …)

2. Micro Level

- The identification of unsatisfied demand or needs
- The need to remove shortages in
  - essential materials,
  - services or
  - facilities that constrain development efforts;
- The initiative of private or public enterprises in response to incentives provided by the government;

Identification (Cont …)

- The necessity to complement or expand investments previously undertaken.
- The suggestions of financial institutions and development agencies
- Study of new Technological Development

II. Pre feasibility study

After we have identified project ideas the next step is project preparation and analysis.

- **Project preparation includes both Pre-feasibility and Feasibility studies**
- Once a project idea is identified a preliminary project analysis will be done (i.e., pre-feasibility study).
- Which means the project idea must be elaborated in sort of study.

Pre feasibility study (Cont…)

Why pre-feasibility study?

- Because, undertaking a feasibility study that enables a definite decision to be made on the project is a costly and time – consuming task.
- Therefore, before assigning larger funds for such a study, preliminary assessment of the project idea might be made in a pre-feasibility study.

In the pre-feasibility study stage the analyst obtains rough estimation of the major components of the project's costs and benefits.

Pre feasibility study (Cont…)

Some of the main components examined during the pre-feasibility study include:

- Availability of adequate market (or beneficiaries)
- project growth potential
- investment costs, operational cost and distribution costs
- demand and supply factors; and
- social and environmental considerations

If the project is appeared to be sound the next sages is a feasibly stage

III. Feasibility study

Pre – feasibility study should be viewed as an intermediate stage.

A feasibility study should provide all data necessary for an investment decision.

- The commercial,
- Technical,
- Financial,
- Economic and
- Environment

for an investment project should be defined and critically examined.

Feasibility study (Cont …)

- Therefore, the structure of a pre – feasibility study should be the same as that of a detailed feasibility study.
- The major difference between them lies on the amount of work required in order to determine whether a project is likely to be viable or not.
- Once the project is decided as viable using pre-feasibility study, a detailed analysis of issues like,

Feasibility study (Cont …)

- marketing,
- technical,
- financial,
- economic, and
- ecological aspects is undertaken in the feasibility stage.

- Feasibility study provides a comprehensive review of all aspects of the project and lays the foundation for implementing of the project and evaluating it when completed.

Feasibility study (Cont …)

In the feasibility study, a team of specialists, like

- Scientists,
- engineers,
- economists,
- sociologists,
- environmentalists etc are needed to work together

If the project is viable, the next step is project design stage

Which means, in the feasibility stage more accurate data need to be obtained in order to proceed to the next stage

Feasibility study (Cont …)

- Finally, the feasibility report should include (but not limited) the following analysis:
  - **Market analysis**
  - **Technical analysis**
  - **Organizational analysis**
  - **Financial analysis**
  - **Social – economic analysis, and**
  - **Environmental analysis**

IV. Selection (project appraisal)

- The feasibility study would enable the project analyst to select the most likely project out of several alternative projects.
- Selection follows, and often overlaps with the feasibility analysis.
- It addresses the question
  - is the project worthwhile?
- A wide range of appraisal criteria have been developed to judge the benefits of a project.
- The criteria are divided into two broad categories.
  - non-discounting criteria and
  - discounting criteria.

Selection (Cont…)

- After a project has been prepared, it is appropriate to forward for a critical review (external review)
- This provides an opportunity to re-examine every aspect of the project plan to assess whether the proposal is appropriate and sound before large sums are committed
- projects, appraisals cover the following aspects,

a) Technical – here the appraisal concentrate in verifying whether the proposal will work in the way suggested or not.

Selection (Cont…)

b) Financial – this will try to see

- if money needed for the project have been calculated properly,
- their sources are all identified,
- and reasonable plans for their repayment are made where necessary.

c) Commercial –

- the way the necessary inputs for the project are supplied
- and the arrangements for the supply of the products are verified

Selection (Cont…)

d) **Incentive** – whether things are arranged in such a way that all those whose participation is required will find it in their interest to take part in the project, at least to the extent envisaged in the plan.

e) **Economic** – the appraisal here tries to see whether what is proposed is good from the perspective of the national economic development.

- **The effects (positive and negative) are taken into account and check if all are correctly valued**

Selection (Cont…)

f) **Managerial** – this aspect of the appraisal examines if the capacity exists for operating the project and see if those responsible ones can operate it satisfactorily.

Moreover, it tries to see if the responsible are given sufficient power and scope to do what is required.

g) **Organizational** – the appraisal examines the project how it is organized internally and externally

This helps to if arrangement and its organization allow the proposals to be carried out properly and to allow for change as the project develops.

These issues are the subjects of specialized appraisal report.

And on the basis of this report, financial decisions are made – whether to go ahead with the project or not.

V. Implementation

The objective of any effort in project planning and analysis is to have a project that can be implemented to the benefit of the society.

- After the project prepared and evaluated the next step is implementing the project
- Implementation is the most important part of the project cycle.
- In this stage,
  - funds are actually disbursed to start the project and keep running
  - contracts are signed

Implementation (Cont …)

A major priority during this stage is to ensure that the project is carried out in the way and within the period that was planned.

During the project implementation stage, the following important points should be considered:

- All the stages of implementation should be completed with in the time schedule allotted.

Implementation (Cont …)

- The output stream should be the same as contemplated.
- The physical targets are to be realized with in the financial allocation.
- Project analysts (manager) must keep an eye over changes in
  - **technology,**
  - **taste,**
  - **price,**
  - **profitability etc.**
- In the case of private investments, profitability is to be so insured that investment funds are expected from within.

Implementation (Cont …)

However, Problems frequently occur when the economic and financial environment at implementation differs from the situation expected during appraisal.

For example, price or political environment may change

Due to these facts, project implementation must be flexible and original proposals are modified frequently to capture these changes.

Implementation (Cont …)

- **Generally, project analysts divide the implementation phase into three time periods**
  - The investment phase, where the major investments are made. This may extend from three to five years.
  - The development phase which may also extend from three to five years.
  - The project life.

Implementation (Cont …)

The implementation phase for an industrial project consists of several stages:

(i) project and engineering designs,
(ii) negotiations and contracting,
(iii) construction
(iv) training, and
(v) plant commissioning.

VI. Ex-post evaluation

The final phase in the project cycle is evaluation.

- Once a project has been carried out the **actual progress** with the plans should be evaluated in order to judge whether the decisions and actions taken were responsible and useful.

However, evaluation is not limited only to completed projects.

Ex-post evaluation (Cont…)

- **Ongoing projects could also be evaluated to find solutions for problems when the project is in trouble.**

- **The evaluation may be done by ,**
  - the project management,
  - the sponsoring agency,
  - or other bodies.

- **Moreover, evaluation should be undertaken when a project is terminated or is well into routine operation.**

Implementation (Cont …)

- Some of the benefits which can be obtained from evaluation are,
- The reality of the assumptions that were made will be evaluated;
- It provides an experience that is highly valuable in future decision making;

Ex-post evaluation (Cont…)

- It suggests corrective action to be taken in the light of actual performance;
- It helps in uncovering judgment biases;
- It induces a desired caution among project sponsors.

- Generally, weakness and strengths should carefully be noted so as to serve as important lessons for future project analysis undertaking.

Chapter tree

Idea Generation (Project Identification)

The search for promising project idea is the first step towards establishing a successful venture

- As traditional saying goes

  " the key to success lies in getting into the right business at the right time"

- Identification of meaningful project idea requires,
  - Imagination
  - Sensitivity to environmental changes
  - Realistic assessment of what a firm or organization can do

Idea Generation (Cont …)

- Identification is often the outcome of a triggering (iterative) process rather than an analytical exercise

- While the notion of identification is simple it is difficult to develop methods or procedure for accomplishing it.

Idea Generation (Cont …)

However, there are certain broad guidelines which are helpful in the generation and screening of project ideas

- Project identification commonly follows the following procedure
  1. Generation of ideas
  2. Monitoring the environment
  3. Corporate appraisal (self assessment)
  4. Preliminary screening
  5. Project rating index.

3.1. Generation of ideas

Most of the new projects ideas are a result of

- Once specialized technical knowledge or
- Marketing expertise or
- Some other competence

To stimulate the flow of project idea the following are helpful

ii. **Analysis of Strength, Weaknesses, Opportunities and Threats (SWOT):**

- SWOT analysis represents a conscious and deliberate , and dynamic effort by an organization to identify opportunities that can be exploited.
- Periodic SWOT analysis facilitates the generation of new idea

Generation of Ideas (Cont …)

ii. Clear articulation of objectives

- The operational objectives of the organization may help to generate ideas
- The operational objective of business firm for example,
  - Cost reduction
  - Productivity improvement
  - Increase in capacity
  - Expansion and growth

Can be helpful in generating the project idea

3.2.Monitoring the environment

- The organization must systematically monitor the environment in which it will operate
- In other words the organization is expected to monitor the following key environmental factors in relation to each of identified ideas.
- **Economic aspects**
  - State of the economy
  - Possible fluctuation in the economy

Monitoring the environment (Cont …)

- The degree of integration with the world economy
- **National policy**
  - Sectoral policy
  - Government program
  - Tax policy
  - Government support
  - Financial policy
- **Technological factor**
  - Availability of technology
  - Accessibility of the available technology

Monitoring the environment (Cont …)

- **Socio demographic factor**
  - Population size and distribution
  - Education level
- **The nature of competition (for business firms**
  - Number of firms in the industry
  - Nature of entry
- **Nature of input supply**
  - Availability
  - Cost of row material

3.3. Self assessment and scouting the project idea

A realistic appraisal of the organization's strength and weakness is essential to select the best idea that can be realized as a successful venture

To screen the project idea in terms of this aspect the following suggestions are helpful

a) Analyze the industry (sector) and analyzing the organization in terms of,

- **Its capacity** (I.e., whether the organization has the capacity to implement or to put into practice the proposed idea).
- Analyze the project in term of **the benefit (profit)** that it will provide to the society (firm)

Self assessment (cont …)

b) Examine the input or resources requirement and firms ability to make it available

c) Review its innovativeness

d) Study government plan, outlays, and guidelines: This analysis is important because;

- It will help to see if the idea is in line with the government priority area
- To check if there are guideline that need to be followed if the project idea is acceptable.

f) Suggestion of financial institutions and development agencies. (that is investigating priority area of development agencies)

3.4. Preliminary screening

In some case it is possible to have a long list of project ideas.

In such cases some kind of preliminary screening is required to eliminate ideas which are not promising.

For that purpose the following aspects could be looked into

a) **compatibility with the promoter:** The idea should be compatible with

- the vision,
- mission,
- and goal of the promoter

Preliminary screening (cont…)

- **In business venture, it should be compatible with the owner's objective. In other words,**
  - It has to fit with the personality of the owner
  - Acceptable to the firm's owner
  - It offers the prospect of rapid growth and high return

b) **Consistence with government priority:** Evaluate the project idea in terms of the government priority. Here we ask questions like,

- **Is the project consistent with the national goal and priority ?**
- **Are there any environmental effect ?**
- **Will there be any difficulty to obtain permission?**

Preliminary screening (cont…)

c) **Availability of inputs**

d) **Adequacy of the market**

e) **Cost of the project:**

f) **Acceptability of risk level:** The desirability of the project idea depends upon the level of risk associated with it

- When a large number of project ideas are evaluated, it may be helpful to streamline the process of preliminary screening.

3.4. Project rating index

- For that purpose a preliminary evaluation may be translated into a project rating index.

Steps involved in the process of the project rating index are,

- Identify factors relevant for project rating
- Assign weight to those factors (the weight are suppose to reflect their relative importance)

Project rating index (Cont…)

- Rate the proposed idea on various factors using a suitable rating scale (typically a 5-7 point scale is used)
- For each factor, multiply the factor rating with the factor weight to get the factor score
- Add all the factor score to get the overall project rating index
- The following table illustrate the determination of the project rating index

Factors	Factor weight	VG 5	G 4	A 3	P 2	VP 1	Factor score
Input availability	0.25			X			0.75
Technical know how	0.1		X				0.40
Reasonableness of cost	0.05		X				0.20
Adequacy of market	0.15				X		0.30
Complementary relationship	0.05		X				0.20
Stability	0.1	X					0.5
Dependency on firm's strength	0.2					X	0.2
Consistency with government policy	0.1					X	0.1
Total	1.00						3.15