

What is Project Formulation?

Project formulation can be defined as the systematic, step-by-step development of a project idea for the eventual objective of arriving at an investment decision. In fact it is a careful and scientific mechanism which enables the entrepreneur to achieve the project objective with the minimum expenditure and adequate resources. This makes it an analytical management aid.

Project formulation helps not only in fighting with the internal problems of project idea but a well-formulated project is the best way of getting financial assistance from various financial institutions.

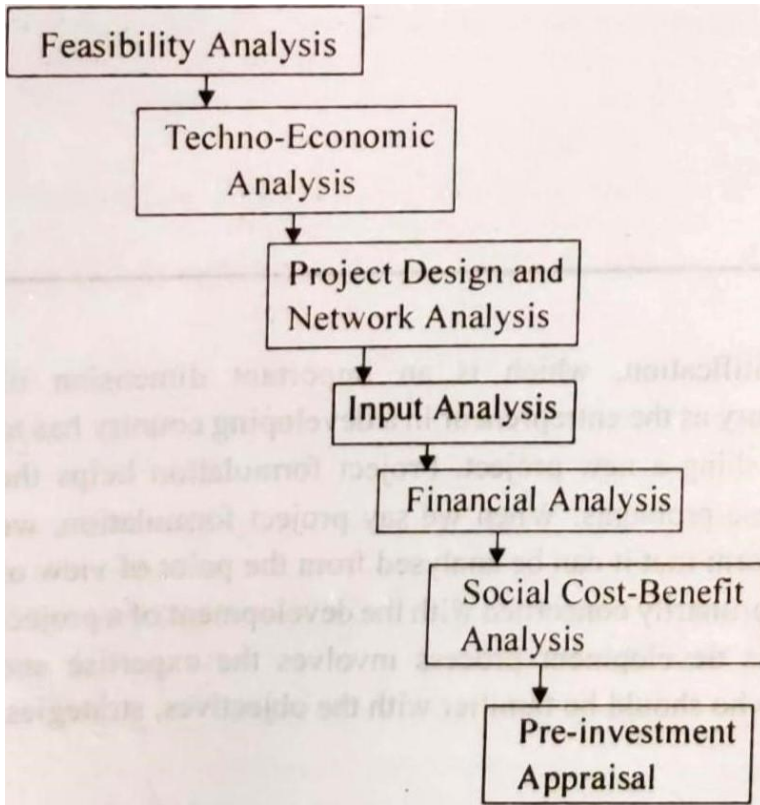
Project formulation will also be of great assistance for obtaining necessary government clearances and in meeting the hurdles of procedural formalities.

ELEMENTS OF PROJECT FORMULATION

Project formulation or the development of project has different stages. These are defined the elements of the project formulation. Normally an entrepreneur goes through these sequential stages:

1. Feasibility Analysis
2. Techno-Economic Analysis
3. Project Design and Network Analysis.
4. Input Analysis
5. Financial Analysis
6. Social Cost-Benefit Analysis
7. Pre-investment Appraisal

Thus, project formulation is the step-by-step analysis of above defined aspects of the project, as shown in fig. below:



Sequential Stages of Project Formulation

1. **Feasibility Analysis** : This is very first stage in project formulation. It is done by the entrepreneur in order to evaluate the feasibility of the project. As it is examined in the context of internal and external constraints, the entrepreneur may face three alternatives. First the project idea seems to be feasible, second it is not feasible and third is a state of confusion with inadequate data. Depending upon these alternatives, the entrepreneur moves ahead, as if it is feasible-proceed to the second step. If not feasible-abandon the idea. And If sufficient data is not available-make more efforts to collect the required data to come to a conclusion.
2. **Techno-Economic Analysis** : As the name indicates this analysis is concerned with the technology selected and the economy of the project idea. In this step, estimation of project demand potential and the choice of optimal technology is made. This analysis produces necessary information on which the project design can be done appropriately. It also indicates whether the economy is in a position to absorb the output of the project.

As a project may produce goods or provide services, it requires sufficient market survey for successful completion of task. Market analysis is built-in step of this process. The size of the project and technology used depend very much on the demand potential.

Hence, the techno-economic analysis may be described as the combination of two steps. The first is related with the determination of the maximum feasible project output and the second is with the selection of the optimal technology to get this output.
3. **Project Design and Network-Analysis** : Project design is one of the most important and essential part of the project formulation. This defines individual activities and their inter-relationship with each other which are being performed to constitute the whole project. This identifies a detailed work plan including all events with time allocation and presented in a network drawing. Network analysis is carried out to identify the optimal course of action, so as to execute the project within the minimum time keeping in view the available resources. This paves the way for detailed identification and quantification of the project inputs, an essential step in the development of the financial and cost-benefit profile of the project. We shall discuss it in detail further.
4. **Input Analysis** : Project is the combination of several activities required to convert an idea into a reality. Each activity requires certain input to be complete successfully. Input analysis is primarily concerned with the identification, quantification and evaluation of the inputs required during the construction and also during the operation of the project.

Inputs include all materials as well as the human resources. Both recurring and non-recurring resources must be considered. Input requirements constitute the basis of cost estimates of the project and are, therefore, necessary for financial analysis or cost-benefit analysis of any project.
5. **Financial Analysis** : Finance may be considered as the life-blood of a project. Financial aspects of an investment proposition have a significant impact on the acceptability or rejection of a

project. Financial analysis mainly involves estimating the project costs, estimation of the operating cost of project and the fund requirements. This analysis provides the feasibility report of any project to the entrepreneur to make decision about the project. It seeks to find out whether the project will generate revenues to realise the ultimate objective for which it is being designed. It reduces investment propositions to one common scale so as to permit comparison and eventual investment decision. As investment proposition has a long-time horizon, this analysis needs due care, professional guidance and foresight of

planner. Some of the analytical tools used in financial analysis are discounted cash flow, cost-volume-profit relationship, break-even analysis and ratio analysis. This can provide data for calculating the different profitability criteria with a view to establish the projects

6. **Cost-Benefit Analysis** : As we have read that entrepreneurs are like the back-bone of economic power of any country. So their projects must provide some national interests. Under this analysis, estimation of social costs and social benefits are made for the computation of social profitability of the project. This is mainly to find out the impact of the project on the society. As financial analysis will provide the profitability point of view for any project. the cost-benefit analysis will consider the project from the national viability point of view. Here again, the project design provides the basis of such evaluation. The methods of estimating the shadow prices or input prices, social discount rate, etc., are to be explained and the calculations are to be presented in separate statements or tables. However, most of the data obtained from the financial analysis could be adjusted to reflect the true social values and use. This information gathered would be used mostly for providing the profit criteria for public project appraisal and evaluation. Social cost-benefit analysis is now an internationally recognised system of project formulation.
7. **Pre-investment Appraisal** : The results of all above defined analysis and steps i.e., the feasibility analysis, the techno-economic analysis, the design and network analysis, the input analysis, financial analysis and the social cost-benefit analysis are consolidated in this step to provide a final and formal shape to the project.

At this stage, the project is presented in such a way that the project-sponsoring body, implementing body and other consulting agencies could be in the position to take decision

about the project's acceptance or otherwise. It involves selection of the project appraisal format, its contents and form of presentation.

Conclusion

Now it is clear that project formulation can be considered as a key input of management aid during the course of establishment of a new project. The whole process of project formulation is defined through certain, definite steps which are well connected with each other. The conclusion drawn at the end of each step forms the basis of development of the next step. And the beauty of the concept lies in the fact that each step is complete in itself to provide sufficient information to the entrepreneur regarding the decision to move further or to look backward for re-check and modifications if required somewhere in project formulation.

