Project Feasibility and Option Analysis Template

The following template explains how to perform an analysis of feasibility and options that are applicable to a given project design. This document aims to help project appraisers and proposers to figure out how to identify alternatives, check them for feasibility, and select the best one for their projects. In this template we give the definition of feasibility and option analysis and explain how to perform this analysis in three generic steps.

Feasibility and Option Analysis in a project is a systematic assessment and evaluation of all possible alternative approaches available for achieving the project objectives to figure out which of the options appear to be most effective and providing the best solution for the project. Such an analysis is often implemented in the form of a process that begins once the project objectives are defined and continues throughout the initiation stage until the best alternative(s) for the project is found and selected.

The process of analyzing project feasibility and options aims to explore all feasible alternatives and provide evidence that the proposed project choice can actually be implemented with the best option available among all feasible alternatives.

Obviously the analysis process consists of two components or stages such as Option Analysis and Feasibility Analysis. Let's describe both stages in detail. For this purpose we'll use the following project feasibility and options analysis template.

Template

The process of analyzing project alternatives and feasibility comes in the following steps:

- 1. Option Identification
- 2. Feasibility Analysis
- 3. Option Selection

The first and third steps are the components of the alternative analysis stage. The third step refers to the stage of evaluating feasibility of the selected option(s) to determine their economic sense and technical sustainability within the project environment.

- 1. Option Identification
 - **Describe a baseline scenario**. It is a forecast of the future without reference to the project. In other words, this scenario identifies the "business as usual" projection. The baseline scenario explains a no-investment situation that comprises incurring operational and maintenance costs within already existing infrastructures. It is also called the "*do-nothing*" scenario.
 - **Define the "do-minimum" option for the project**. Now you must describe a scenario that is obvious for the project and requires minimum effort and cost. This step assumes incurring certain insignificant investment outlays that go beyond the existing operational and maintenance costs. For example, partial modernization of an existing infrastructure requires fewer investment effort and expenditure. The "do minimum" option provides the least cost solution for achieving the project goals.
 - Explore "do-something" options for the project. At this step of the project feasibility and options analysis template, you need to look for other possible alternative solutions against the "do-nothing" scenarios. Such solutions are identified on the basis of technical, regulatory, compliance, and demand opportunities and constraints. The "do-something" options involves an amount of investment depending upon the project objectives.
 - Advice. In most projects, the focus of analysts is often placed on pricing policy. This means every scenario will be evaluated against assumptions on tariffs and quotes. An option that requires lower investment performance will be prevailing, as compared to other alternatives with higher cost requirements. In this context, the baseline scenario and the "do-minimum' options will be evaluated and considered first.

2. Feasibility Analysis

• **Carry out demand analysis**. Such an analysis means you must evaluate the need for a project investment through assessing 1) Current demand and 2) Forecast demand of the project. Demand analysis aims to formulate a hypothesis about the project's capacity and size which are defined by either current demand or forecast demand. For each of the identified options you need to conduct demand analysis and find out which option ensure the most suitable capacity and size of the project in terms of current/future demand.

- Check for available technology. Technology makes a project feasible. For example, availability of communication technology (e.g. virtual collaboration solutions) enables project participants to effectively communicate with other. Your goal is to understand what technologies are required by each alternative and then figure out which of technologies are available for your project environment.
- **Review staff requirements.** You must determine which of the available options ensure complete staffing of the project. Your project will be feasible if it is provided with sufficient staff with the right skills and experience. When reviewing staff requirements of each alternative, focus on these items:
 - Role requirements
 - Personnel assigned to roles
 - Resource leading chart
 - Training needs
- **Determine broad scope**. Every alternative is feasible within certain limits or boundaries which define brad scope. When determining and comparing broad scope of the available project options, try to figure out the following:
 - Inclusions, exclusions, assumptions, constraints
 - User requirements
 - Issues to be resolved
 - Deliverables
- **Reporting.** This step of the project feasibility and options analysis template is to summarize the analysis and develop a <u>feasibility study report (FSR)</u>. The report will include the results of the previous steps and suggest the best solution that has been proposed for the project.
- 3. Option Selection
 - **Perform cost-effectiveness analysis.** This step of the project feasibility and options analysis template requires you to make a comparison of the alternatives with a unique common effect. The goal is to select an option that either minimizes the net present value of costs, or maximizes the output level. The analysis is bets applied to projects with predictable expenses.
 - **Perform multi-criteria analysis**. Another way to select the best option is to compare all the options by a family of algorithms or criteria. This kind of project analysis lets you deal with a suite of different objectives that cannot be aggregated into a single benefit. You need to figure out if your project fits into the requirements of multi-criteria analysis, and if so you can use this analysis in option selection.
 - **Evaluate economic impact**. Along with the two previous analyses, you can try to use impact analysis as a way to select the best alternative to your project design. Such an analysis entails the identification and evaluation of the foreseeable impact of every option on the economic background of your project. It focuses on using high-level economic indicators and forecasts their influence on the project environment.
 - **Make the final decision**. At the last step of this project feasibility and options analysis template you need to summarize all the steps taken and confirm whether the analysis has demonstrated that alternative feasible options have been adequately examined and considered and that the best option has been selected for your project design.