2 Success and Appraisal of a Project

2.1 INTRODUCTION

Basically, project is a vehicle for achieving certain specific objective, and once the objective has been fully realized, the project may be considered as completed and successful. However, as has been discussed in Chapter 1, the journey is not easy. Indeed, it is quite painstaking and fraught with risks of failure. Therefore, before dwelling on the topic of success of a project, the first task should be to understand the nature and range of success and ensure that the possible causes of failure are taken care of at the appraisal stage itself.

2.2 RANGE OF SUCCESS

As has been discussed in Chapter 1, every project has three basic features, viz., performance (specification), time and cost, which are required to be in line with the initial plan. If all these features are satisfied, the project is considered as successful. On the contrary, when a project is completed, but none of the three basic features are satisfied, the project is considered to have failed. The project may also be terminated early or abandoned before completion due to a variety of reasons. In such a case, the project is also deemed to have failed. These instances depict two extreme results. In practice, however, a project may have achieved or nearly achieved two or even only one of the basic requirements. In such a case, the success or failure would be only partial and not absolute. Thus, there may be degrees of success or failure depending on the levels of achieving the required basic features.

The range of such success/failure is collated below according to a diminishing range of success:

- Absolute success:
  - Project completed as per scheduled time, cost and specification fully.
- Partial success:
  - Project completed and meets two out of the three basic features;
  - Project completed, but meets only one out of the three basic features.
- Failure:
  - Project completed, but does not satisfy any of the basic features;
  - Project terminated before completion.

2.3 CRITICAL SUCCESS FACTORS

Probability of success of a project depends basically on the levels of analysis of critical success factors. These are those elements in the project cycle which must be given special and continued attention from the very beginning to ensure that the project is successfully completed. These factors may be divided into two groups according to the periods when these should be taken care of, viz.,

- Pre-implementation period;
- Implementation period.

There are quite a number of these factors which should be considered to achieve the goal. The more important ones are discussed in the paragraphs that follow.

2.3.1 Pre-implementation Stage

The factors that should be considered prior to the start of implementation stage are as follows:

- Definition of the objective;
- Investigation and analysis;
- Assessment of uncertainties and risks;
- Estimate of time and cost;
- Planning.

2.3.1.1 Definition of the Objective

The first exercise is to define a clear objective of the project. Basically, this means the goal where the journey should end. The objective should be specific, i.e., quantifiable and the quality should be measurable. Consequently, the project management team should share a coherent understanding of the expected objective.

2.3.1.2 Investigation and Analysis

Quite often, analyses of the different project options for achieving the objective are not carried out properly for want of sufficient data. This shortcoming is due to various reasons, such as superficial field investigation, inaccurate estimation of time, cost and benefits, etc., and particularly unreasonable haste in completing the study. As a result, such projects suffer in time and/or cost overrun or fail to achieve the specified objective, or are even terminated during the implementation stage.

It is therefore imperative that appraisal of a project should be carried out in detail, with all sincerity, and should be given sufficient time to complete properly. This effort at the initial stage of a project is expected to bring about high performance in the implementation stage.

These aspects will be discussed in greater detail in chapters that follow.

2.3.1.3 Assessment of Uncertainties and Risks

Having properly defined the objective of a project, assessing the uncertainties and risks involved in realizing the objective is a necessary step for achieving success. One must understand that uncertainty and risk are inseparable from any project, no matter how hard one tries to plan to force it from these unwelcome aspects. However, efforts must be made to reduce or at least limit the influence of *foreseeable risks* in order to enhance the chances of success.

The points that are required to be addressed in this respect are as follows:

- Identification of any foreseeable risk;
- Reduction or elimination of such risks if possible;
- Decision whether or not to allow the risk to remain while proceeding with the plan.

It is imperative that these aspects are considered and closely reviewed at the very early stage of the project initiation, so that any future untoward event does not take the implementing team by surprise and thereby thwart the progress of the project. This topic will be discussed in detail in a later chapter.

2.3.1.4 Estimate of Time and Cost

Estimating time to execute the project activities and cost of resources for these must be considered in unison as these two are interrelated and interdependent. This topic has been discussed in Chapter 1.

2.3.1.5 Planning

Next, it is necessary to proceed, at a very early stage, with the preliminary design work and prepare a plan for implementation. This will enable the stakeholders to study the project in entirety prior to commitment to the costs of manufacturing the required resources or construction at site.

The plan should be prepared in sufficient detail in order to avoid unexpected obstacles, and should provide a complete picture of how the project will be implemented *via* a series of activities in sequence, describing the processes, the responsibilities of the concerned participants, etc., and finally deliverables committed in the objective. It is relevant to add here that every project comprises a number of interdependent activities. Thus, one particular activity may have to wait till completion of another *particular* preceding activity. For example, in a building project, the foundations are required to be built before the corresponding superstructure can be constructed.

It is now common to use computers in the planning and monitoring of projects. Some organizations use standard planning software, while some use their own tailor-made version. In choosing standard software, care must be taken to ensure that the software is appropriate for the project plan to be used and also compatible with the hardware, operating system, etc., of the computers available with the organization. In case the existing facilities need change/replacement, the additional costs for the same should be included in the cost estimate.

2.3.2 Implementation Stage

The factors that should be considered during the implementation stage are as follows:

- Financial support;
- Human relationship;
- Delegation of authority;
- Response to changes in the plan;
- Contract terms;
- Communications system;
- Monitoring and control;
- Safety aspect.

2.3.2.1 Financial Support

Quite often, physical progress of projects has been affected due to delay in the release of funds (commensurate with the requirement) due to financial constraint of the investing agency. This is likely to not only delay the completion time, but also increase the prices of goods and services due to inflation. In order to keep up to the target of time and cost, it is therefore imperative that every effort is made to ensure timely release of funds to achieve the scheduled completion time and avoid cost over-run and decreased outcome level.

2.3.2.2 Human Relationship

Every project is a people-centric endeavor. Thus, while good planning and financial support are important, these cannot produce good results on their own. They need *groups of people* to bring the project to a successful end. Therefore, it is necessary to have a satisfactory human relationship in every project. The key groups are as follows:

- Project team and its leader;
- Providers of goods and services;
- End users;
- Others.

In the following sections, the roles of some of the key groups for a successful project outcome are briefly discussed.

2.3.2.2.1 Project Team and Its Leader

Ideally, the project should have a coherent team by deliberately inducting people with complementary role, committed to a common objective and having alongside an inspired and dedicated leader. The team members should be driven by a team spirit – a sense of shared identity – who are likely to work together well, guide and help each other irrespective of their ranks, and hold themselves collectively accountable for the performance of the team. This team spirit should be developed and sustained professionally. The team members should be mobilized *in time*, suitably ahead of the commencement of actual implementation to enable them to understand, review and

plan their work and develop their system of communications in advance. The art and science of modern project management need to be inculcated into all the members of the team. An uneducated and untrained workforce is likely to run counter to delivering a successful project outcome. This aspect should be given due importance from the initial stage of the project.

Every project needs a leader, usually termed Project Manager. Project Manager is expected to possess leadership skills. He should be able to develop rapport with his teammates and motivate them. He should also respond positively to the suggestions made by others, and avoid unilateral imposition of decisions on the teammates. It is one of his primary roles to use his skills in persuasion in dealing with disputes among members of the team and search for areas of agreement towards a consensus-based solution. He has also to deal with different stakeholders such as clients, technical, financial, commercial, legal and environmental experts involved in the project. He should therefore have the ability to communicate with them positively and act as a shock-absorber in finding ways of resolving the conflicts between their very different interests. Furthermore, he is expected to possess contract management ability. He should be able to plan in detail, monitor and control the progress of the project, and also to anticipate problems and solve them by making on-the-spot decisions wherever possible. In short, he should be able to develop and manage a well-oiled operational 'team vehicle' in a scenario of constant change and drive it to its intended destination.

2.3.2.2.2 Providers of Goods and Services

More often than not, a project requires external resources such as goods and services to achieve its goal. These external stakeholders should be chosen with care, considering the time frame and cost aspect, as well as their quality of performance. For success of a project, 'participating type' of management should be established. These external contributors should be involved in the decision-making process from the very beginning. They should also be encouraged to train and brief their staff about the management setting of the project and its overall supporting environment, including other stakeholders. This would help in attaining the objective successfully.

2.3.2.3 Delegation of Authority

In order to avoid a delay in giving decisions for urgent problems that require prompt action, it is necessary to introduce a system of providing appropriate delegation of authority to key members involved in the project, particularly when the location of the project is remote from the headquarters. This would forestall avoidable crises, extra expenditure as well as erosion of confidence in the team. Therefore, care should be taken to ensure that the concerned members are capable and possess enough experience to make quick decisions on matters delegated to them.

2.3.2.4 Response to Changes in the Plan

In spite of all efforts, quite often, a project gets delayed during the implementation stage due to various reasons. Critical activities take longer time period, thereby affecting the overall completion schedule. Also, sometimes due to changed situation, the intended goal may have to be revised, entailing alteration to some of the activities. It is therefore necessary and advantageous to introduce a certain amount

of in-built flexibility, particularly in the time period estimates of different activities. With such a planning, the obligatory changes may be accommodated without sacrificing the ultimate outcome of the project.

2.3.2.5 Contract Terms

Contract terms with the external stakeholders, viz., the providers of goods and services, should be fair and equitable, so that all the parties are motivated to try their best to achieve their objectives and help to the success of the project.

The terms and conditions in the contracts between the customers, suppliers, contractors, subcontractors, etc. should be unambiguous, and the rights and responsibilities of each party should be clearly allocated, to avoid, or at least minimize, the number of contractual disputes. This would help smooth running of the project immensely.

2.3.2.6 Communications System

For the success of a project, it is vital that a communications system be introduced from the early stage of the project. The system involves collecting different information regarding the project, and reaching it to the right people as a matter of routine for dissemination and further action if necessary. It *inter alia* includes formal project status report, any information that might affect the progress now or in the future leading to group discussions, and review future plans. Each information should be properly documented and retained for future reference.

2.3.2.7 Monitoring and Control

Once a project is launched, it becomes imperative to introduce a chain of systems to monitor and control the series of activities being undertaken by the project team. These systems primarily involve auditing the performance against the plan, ascertaining the causes of deviation, if any, finding an appropriate solution to the problem causing the deviation and taking corrective actions and changing plans of future activities in order to put the project back to its intended course.

The process also involves guarding against the forces that might affect the project now or in the future, and making suitable change now. Change may cost money. The organization should therefore estimate the cost of *not* removing the problem, and then take the decision after evaluating the pros and cons of the two alternatives. Some of the important aspects that should come under the purview of the monitoring and control are as follows:

- Time;
- Cost;
- Quality;
- Communications;
- Supply of resources;
- Release of funds;
- Uncertainty and risk.

Satisfactory monitoring and control of these aspects is essential for the success of any project, big or small.

2.3.2.8 Safety Aspect

Another aspect that warrants attention is safety during the project stage and also after its completion. Nowadays due to highly competitive environment with a tendency to speed up progress to meet the dead line, complacence and negligence to workmanship or even deficiency in the quality of material and inputs used are not uncommon, unless strict quality control regime is enforced. Thus, a project may be prone to safety hazards and accidents, not only during its execution stage, but also after the project is completed. This aspect is particularly important in industries like airlines, railways, mining and nuclear power, where safety aspect must be considered to be of paramount importance. Compromising in maintenance requirements due to the lack of funds is a common hazard in completed projects. This situation should also be brought into focus at the concept stage itself. Under no circumstances, safety aspect can be compromised for the sake of early completion of the project or budget constraint. The disasters of Chernobyl Nuclear Power Plant at Pripyat in Ukraine on 26 April 1986, or the toxic gas poisoning incident in Bhopal, India, on 2/3 December 1984, considered the world's worst industrial disaster consuming more than 10,000 lives, are not easy to forget.

2.3.3 Sponsor

As already discussed in Chapter 1, the sponsor of a project can be an individual, a private organization or a government, having different objectives to achieve. However, if the project has to thrive, it will need the sponsor's active support and involvement from the initiation stage, and to whom the project management should be accountable. The sponsor should have sufficient time to oversee the project. Ultimately, it is the sponsor who will carry the project forward from the beginning to a successful end.

2.3.4 Learning from Experience

The idea of learning from experience of earlier projects has always been a normal practice in the past. Galileo is believed to have employed case studies of failures for advancing and developing some of his path-breaking theories. This practice was continued for centuries when professionals and scientists almost always used precedents – both successes and failures – to buttress their ideas and decisions. Case studies from previous projects, from wherever these are available, have thus become recognized as a source of knowledge for developing ideas for the future and a symbol of well-thought-out project management for attaining success.

Of late with the increasing technological progress in project appraisal and execution system, the need for recording case histories of failures has assumed greater importance. However, in these days of litigations and arbitrations, there are many hindrances for candid discussions of project failures. As a result, frank analysis of errors during appraisal and/or execution stages is generally not found in technical literature.

2.4 APPRAISAL

Project appraisal is a process of assessing in a structured way, the viability of a project at the initial 'idea stage'. It involves examining various options from different

perspectives using appropriate analysis techniques. In effect, the process is used for judging whether the project is acceptable or not to the stakeholders before pledging any resources to it. The stakeholders or the interested parties are investors, financiers, guarantors, licensors, etc.

2.4.1 Purposes of Project Appraisal

The main purposes of project appraisal are as follows:

- To define the project objectives and examine the options to attain these objectives;
- To ascertain the likely consequences of an investment by examining the available resources and their projected performance criteria. The appraisal indicates whether or not to invest in the project, considering different aspects;
- To identify the risk elements and probability of any unfavorable consequence.

2.4.2 Appraisal Process

Appraisal process consists of five steps. These are as follows:

- Initial assessment;
- Problem definition and preparation of a long list;
- Reviewing the long list and preparation of a short list;
- Developing options;
- Comparing the options and selection of a project.

The process generally starts at the initial phase of a project so that the organization is in a position to make a decision of the amount of capital to be spent on the project or even discontinuing a project that is not viable or practicable.

2.4.3 Early Appraisal

In order to achieve success, it is necessary that once the alternative options have been developed in the 'idea stage', these options should be subjected to a detailed analysis from different perspectives for ascertaining their viabilities. These include:

- Market analysis;
- Technical analysis;
- Economic analysis;
- Financial evaluation;
- Environmental appraisal;
- Uncertainty and risk analysis.

These are discussed in the chapters that follow.

2.5 CONCLUDING REMARKS

All efforts should be made to achieve absolute success in any project, since failure is always costly and disappointing apart from being frustrating. In the preceding paragraphs, some of the important aspects of success in a project have been briefly discussed. Most of these have been drawn upon from experiences in previous projects. These need to be considered for going forward for success in projects. However, priorities may vary from case to case depending upon specific circumstances or problems.

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