Project Appraisal: Its Scope and Objective

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Abstract

This research paper is an outcome of a case study of concept of the true for the financial analysis as a whole. Resources available to the country any year can be invested to produce goods and services over the next several years. If we accept the need to apply a time valuation of money flows accruing in the future then we do not have to look any further than the principles of compound growth (or compound interest) for satisfactory arithmetical approach. We measure time in discrete units such as, years, months, weeks in both directions from the present that is in past and future. When we compound the growth of population, demand or accrued interest in a savings account, we are looking to future growth and projecting forward the present when we discount we are looking at the present value (or worth) of the future. This if we can expect to receive a sum of money seven years ahead and wish to value this is in terms of a present value then we reduce or discount the future valuation by some measure or rate which reflects our preference for money now rather than later to find the relevance of experience of the financial analysts for significantly and effectively in developing investment risk reduction and adaptation strategies' is also brief discussed.

Key-wards: Feasibility of projects, calculate profitability, Project Acceptability Criteria, Rate of return, analysis of costs and benefits data.

Introduction

Investment decision forms an integral part of development process. Amongst various methods of making investment decisions, project appraisal occupies the most leading position. It helps rationalize the guidelines for investment criteria at the project level and the national level. Production is a function of specific use of inputs to derive outputs. How to decide about the specific use of inputs which have alternative uses is an investment's dilemma. In a free market economy, prices of inputs determine their most efficient allocation. But the market forces may not lead to achieve desirable social economic objectives such as equitable distribution of income. In the case of public sector investment, serious attention should be given to its economic and social effects. In the case of private sector investment, project usually center on around financial worth ignoring the social and economic aspect. But any investment decision, be in the public sector or private sector, the project appraisal and its techniques play a very significant role.

1. The Definition of Project Appraisal

Project appraisal means a pre-investment analysis of project to determine whether the project should be implemented or not. There are some inherent differences between the terms Project Appraisal and Project Valuation although they are often used interchangeably. Project appraisal refers to an ex-ante examination of a proposal project to determine whether the same should be implemented or not whereas project evaluation is an ex-post assessment of the impact of an accomplished project.

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Project appraisal is defined to provide a base – technical, economic, and commercial for an investment decision about any project. It covers a wide range of analysis of the alternative approaches for selecting the optimum solution in respect of location, technology, size of a project, engineering and organizational set-up, market size, financial cost-benefit, economic and social aspects of the project and various other relevant issues. It may either market oriented or based on materials inputs, that is derives its initiative from an assumed or existing demand or from available material inputs such as raw materials, or energy. Thus project appraisal is not an end in itself, but only a means to arrive at an investment decision that need not agree with the conclusions of the feasibility study. In fact, it would be rare to find investor response so flexible as to fully conform to the results of such a study.

Project appraisal as an aid to investment decision assumes special significance when a scarce factor, such as capital, foreign exchange, and or labor is to be rationed in terms of the alternative uses to which it can be put. In addition, the time element is another important factor in the appraisal of investment decisions.

2. Objectives of Project Appraisal

Proper investment planning and implementation of projects are intimately linked to the macro development goals of the country. Efficient management of investment resources and continuous evaluation of investment outcomes are the two most crucial activities necessary for ensuring the optimum use of scarce resources and determining the emerging character of development for its direction and effectiveness. Successful implementation of development plans and programs has come to depend heavily on investment decisions effective use of resources. The need for effective use of resources is strongly felt as instrument of aid policy in the public and private sector of the economy. This trend is to be welcomed because it is important that the country's resources should be used in the most effective way possible it the economy is to be strong and our standard of living is to be improved.

Each country has its own development objectives and this in turn requires that the resources be judiciously allocated in order to attain these objectives. The use of resources which are limited to attain objective implies their reduced availability for other objectives. If resources are used efficiently, the number of objectives that can be pursued simultaneously increased. Development planning, therefore, requires the fixing and ranking of objectives and the efficient allocation and use of scare resources. Once objectives are established and ranked for a certain period, individual investment proposals should be scrutinized to determine whether and to what extent they can contribute to the desired results.

Therefore, Project Appraisal is necessitated because of the fact that resources are limited as compared to the needs of the society. As a result, any investment undertaken implies depriving other project resources. Hence it is to appraise projects before investment decision so that scarce resources are utilized in the best possible ways. In other words, before allocation of resources for a particular development project is the best and most economical way of achieving the desired

objective in terms of social-economic benefits. For this and ensuring economic use of resources we have to appraise each project very minutely from different angles. Project Appraisal involves detailed pre-investment analysis of market, technical, financial and economic characteristics of a project with a view to determining its market and technical feasibility, financial soundless, economic desirability and finally measuring its investment worth. The task aims mainly at ensuring that scarce resources are put to most effective use. It requires the combined efforts of a team of persons from various disciplines such as engineers, financial analysts, economist etc.

3. Scope, Issues and Methods of Project Appraisal

Appraisal involves an analysis of various aspect of viability better known as feasibility of projects. Before proceeding further it appears logical to discuss the various types of project feasibilities and the methods used under the analysis of each category of feasibilities studies. As many as four types of feasibility studies are commonly practiced. Their descriptions are as follows.

Market feasibility: The importance of market feasibility is obvious as no investment will be worth its while if its product cannot be sold at competitive prices so as to realize the capital and operating costs from sales proceeds. It is necessity of following correct resource allocation policies so that the scarce capital resources are utilized in economically advantageous enterprise.

Technical feasibility: The proposal project is expected to be free from supply bottlenecks at all stages of its execution and operation whether the technological constraints that the project may face in terms of production capacity the market size for the product have been given careful consideration, whether all possible combinations of factors of production have been considered in designing the project plant to avail of maximum possible advantages in terms of production economics in the given circumstances, and whether the proposed location of the project is suitable from the point of view of availability of inputs and delivery of outputs. The viability of the project depends very much on its engineering design. A check on the technical soundness of a project is, therefore, a fundamental step in project appraisal.

Financial soundness: The proposed financing arrangements will cover adequately the capital and operating costs of the project. The current liquidity is commensurate with current obligations. The project will earn sufficient margin of profits to be able to pay interest on its long-term debts and debt repayment installments. The project will earn reasonable return on the capital provided by its sponsors and whether the project has reasonable level of safety margin to cope with any adversity that may come on its way. Since financial arrangement are to a great extent responsible of these is self-evident.

Management soundness: The importance of sound management for the success of a project needs no elaboration. Even a project with excellent market prospects, outstanding engineering designs, full-proof financial arrangement etc. may end in failure if it is not managed well.

4. Measurement of Investment Worth

Resources are invested in an investment project with a view to gaining reasonable returns. These returns should be carefully measured and their adequacy examined from the point of view of the owners of the project as well as from the point of view of the national economy. Benefits to a private party may not coincide with the benefits to national economy. While private profitability is calculated on the basis of direct costs and direct benefits of a project valued at market prices, economic profitability that is the investment worth to the national economy takes account of both direct and indirect costs and benefits of a project and values them at their opportunity costs. It is not enough for a project to be profitable to its owners; it should be profitable to the national economy as well. Needless to say, howsoever measured, ultimate decision about the acceptability of a project rests on the benefits that it offers.

It should be pointed out here that although the various aspects of a project have been deal with separately inter-related having mutual consequences affecting the desirability of a project. It is only for the convenience of mechanical operation and for emphasizing the importance of each of the elements in project appraisal that they have been treated separately. In the actual decision process, the results obtained under each of these elements will have to be used in combination to arrive at an accurate decision. This will be evident if the various aspects of appraisal are categorized by their intrinsic nature. The economic feasibility test indicates whether an economic basis of a project exists or not. It is thus an indicative test. The decision whether a particular project should at all be proceeded with is indicated by this test. The importance of this test is obvious. The technical, financial and managerial soundness tests may be termed as descriptive test. They describe the anatomic composition of a project and thereby show whether the project has been formulated with all possible care to achieve best possible results. The measures of investment worth define whether a project should be accepted or rejected. These are, therefore, definitive tests. Thus it will be seen that the indicative test provides a project's prima facie feasibility without which it will be useless to go into the descriptive parts. Again, nothing can be known about the project unless its descriptive parts are analyzed through the application of the descriptive tests. Finally, the end purpose of the whole appraisal exercise is served by the definitive tests on commercial and economic profitability which by themselves are conditioned by the pattern of resource combination covered by the descriptive tests. It is, therefore, obvious that the standard tests described in this paper under different headings are all parts of a combined whole and should be used as such.

5. Measurement of Commercial Profitability and Rate of Return

The ultimate objective of project appraisal is to establish the profitability of a proposed project, profitability being defined appropriately. A good beginning on the long and arduous path of profitability will be to start the way a common man approaches the subject. Profit is the difference between earnings and the costs incurred in achieving the earnings. In this way, the meaning of profit and hence profitability becomes intuitively clear. This is the way how profitability is calculated

by an individual or a business enterprise. Let us see how an average business enterprise will calculate profitability. This is explained by a very simple hypothetical business account given in the following table 5.1.

Table 5.1: Calculation of commercial profitability
Project cost: $800,000
Project life: 8 years

	Y -1	Y - 2	Y - 3	Y - 4	Y - 5	Y - 6	Y – 7	Y - 8	Average
1	2	3	4	5	6	7	8	9	10
Cash income	150,000	195,000	210,000	170,000	220,000	190,000	210,000	215,000	195,000
Depreciation	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Net income	50,000	95,000	110,000	70,000	120,000	90,000	110,000	115,000	95,000

Cash income is defined as the difference between current expenses and current receipts or sales proceeds and expenses including all types of expenses such as raw materials, direct labor, manufacturing overhead, marketing and administrative expenses.

From the accounts given in the Table above, it is quite clear that the project has earned a net profit of $50,000, $95,000, $110,000, $70,000, $120,000, $90,000, $110,000, $115,000 in the first, second, third, fourth, fifth, sixth, seventh and eight years of its operation life. Column 10 of the table shows the average not profit over the eight years life period of the project and it is $95,000. Note that the average value of annual depreciation has been used to calculate the average of depreciation (straight line method). It will like to compare this level of the profit with those of other companies or firms or at least the going rate of interest. To find this out, the rate of return on the capital invested will have to be calculated. This is done by dividing the profit by the amount of capital invested. The calculation is shown below.

$$\text{Rate of return} = \frac{\text{Average profit}}{\text{Investment}} \times 100 = \frac{\$95{,}000}{\$800{,}000} \times 100 = 11.88\%$$

So, the rate of return is 11.88 percent.

One may legitimate raise an objective to the way that the rate has been calculated. The point of objection will be that profit has been averaged over the eight years; investment has not been treated in this same way, that is, the average value of investment has not been taken. To meet this objection we shall have take the average value of investment as the divisor. Let us to do this. The following method (Table 5.2) may be used to find out the average value of capital.

Table 5.2: Value of Capital

	Y -1	Y - 2	Y - 3	Y - 4	Y - 5	Y - 6	Y – 7	Y - 8	Average
1	2	3	4	5	6	7	8	9	10
January 1	800,000	700,000	600,000	500,000	400,000	300,000	200,000	100,000	
December 31	700,000	600,000	500,000	400,000	300,000	200,000	100,000	100,000	
Average	750,000	650,000	550,000	450,000	350,000	250,000	150,000	100,000	406,250

We now divide the average profit of $95,000 by the average of investment which is $406,250, we get the following result.

$$\text{Rate of return} = \frac{\text{Average profit}}{\text{Average investment}} \times 100 = \frac{\$95{,}000}{\$406{,}250} \times 100 = 23.38\%$$

This is quite a satisfactory rate of return. The investor should feel very happy about the level of profitability of the company.

6. Present Value or Time Value of Money

We would felt equally happy with investor with the level of profitability of the above project and for our successful understanding of the method of calculation of profitability, had not bothersome element in the form of time had creates a problem. It may be recalled that we had to take resource to a process of averaging in calculating the profitability of the project example. This average was done for a period of eight years, that is, we have rounded the events of eight years, into one figure by an arithmetical averaging. As far as a common investor is concerned this is method of average profitability may be a good indicator but a scientific mind will brush all these off by saying that the method is unscientific and can at least be called a 'Naïve' of looking at profitability over a long period of time. The scientific mind will say that the calculation has been done as if 'time' is neutral and causes no problem in life. But in fact time brings changes as much in the business world and everyday life as it does in the physical world also.

If someone offers you a choice of (1) receiving $100 today or (2) receiving $100 after eight years from now, your decision would be clear, you can always put in into a savings account and earned 10% a year, which would give you $195 in eight years. If you are holder and willing to take risks, you could invest in a business or lend the money to private parties and earn much more over eight years from now. So all your choice under alternative (1) are at least as good as, and mostly better than, those under (2). This is an illustration of the value of time or the cost of waiting. Money received today is always worth more than the same money received in the future.

The same is true for the economy as a whole. Resources available to the country any year can be invested to produce goods and services over the next several years. If we accept the need to apply a time valuation of money flows accruing in the future then we do not have to look any further than the principles of compound growth (or compound interest) for satisfactory arithmetical approach.
We measure time in discrete units such as, years, months, weeks in both directions from the present that is in past and future. When we compound the growth of population, demand or accrued interest in a savings account, we are looking to future growth and projecting forward the present when we discount we are looking at the present value (or worth) of the future. This if we can expect to receive a sum of money seven years ahead and wish to value this is in terms of a present value then we reduce or discount the future valuation by some measure or rate which reflects our preference for money now rather than later. Note that the approach when discounting is exactly the same as where compounding – it is simply a matter of looking at the question from different ends of the time scale. Thus we would expect the rate of discount to be the reciprocal of the rate of compound interest.
The compounding factor is used to calculate what an initial amount grows to at a predetermined rate of interest. The value of one compounded for years is expressed as $(1+r)^n$ when r is the interest. This may be demonstrated as follows.

P = Principal amount ($) 100

R = Rate of interest paid per annum 10%
Value of principal amount plus interest at end of 1 year 100+ 10 = $110 ……..(i)
Value of principal amount plus interest at end of 2 year 100+ 10 = $121 ……..(ii)
Value of principal amount plus interest at end of 3 year 100+ 10 = $133 ……..(iii)
Value of principal amount plus interest at end of 8 year 100+ 10 = $214.36 ……..(viii)

(i) Can be calculated by $P(1 + r)^n$
Thus S_1 = Sum arising after 1 year
$S_1 = 100(1 + 0.10)^1 = 100\ (1.10)^1 = 110$

(ii) S_2 Can be calculated by $P(1 + r)^n$
Similarly $S_2 = 100(1 + 0.10)^2 = 100\ (1.10)^2 = 100 \times 1.21 = 121$

(iii) S_3 Can be calculated by $P(1 + r)^n$
Similarly $S_3 = 100(1 + 0.10)^3 = 100\ (1.10)^3 = 100 \times 1.331 = 133.10$

(iv) S_8 Can be calculated by $P(1 + r)^n$
Similarly $S_8 = 100(1 + 0.10)^8 = 100\ (1.10)^8 = 100 \times 2.14358 = 214.36$

The discounting factor is used to calculate the present value of amounts accruing in the future. The present value of 1 discounted back over n years is $1 / (1 + r)^n$. As can be seen this indicated under (2) above, r is the reciprocal of the compounding factor and may be demonstrated as follows.
Present value of 133.1 accruing at the end of year 3.

$$P = \frac{S}{(1 + r)^n}$$

Where P is present value,
S is the future sum arising, and
r is the rate of interest.

$$P = \frac{\$133.10}{(1 + r)^n} = \frac{\$133.10}{(1 + 0.10)3} = \frac{\$133.10}{1.331} = \$100$$

Note that the rate of interest when used for discounting is usually referred as to the discount rate. Compounding and discounting can thus be carried out using the formula presented and explained above, but this is a time consuming and tedious procedure. Tables of compounding and discounting factors are readily available and these help to speed up the calculation. We can therefore, see that it is easy and convenient to use compound and discount table for deriving present values.

7. Method of Calculating Profit Worthiness

One costs and benefits are arranged in their time phasing, the discounting can easily be done to calculate the profitability of the project. The basic cost and benefit data are the 'raw materials' of a discounted cash flow analysis. It should be pointed out that result of the analysis will entirely depend on the accuracy of cost and benefit data used. An analyst may assume that these have been compiled by competent and responsible project personnel. But whenever suspicion arises about the accuracy of any of the data, the analysis should re-check the same to avoid a faulty decision index. The analysis will collect these costs and benefits data from a project pro-forma designed by

competent people so that all the necessary information are available. He / she should proceed with preparing cash flow chart and profitable analysis by adopting appropriate discount rate and various indices / methods of calculating profitability. We will discuss three such demonstration of how the whole compilation can be done with some hypothetical cost and benefit data. This is done in the following.

(1) Net Present Value (NPV),
(2) Benefit Cost Ratio (BCR), and
(3) Internal Rate of Return (IRR)

Net Present Value (NPV): In using a discount rate which quantified our reference for present consumption over future, it is reduces costs and benefits accruing in different years to common time dimension, that is, the present time period. Surplus of income or return over cost reduced to present period would provide us with an indicator to take investment decisions. The following example indicates the procedure for calculating the net present value of a project.

Year	Cash inflow / Costs ($)	Cash Outflow / Benefits ($)	PV of $1 @ 12%	Discounted Costs ($)	Discounted Benefits ($)
0	50,000		1	50,000	-
1.	10,000	20,000	0.893	8,930	17,860
2.	12,000	22,000	0.797	9,564	17,534
3.	15,000	30,000	0.712	10,680	21,360
4.	16,000	30,000	0.636	10,176	19,080
5.	16,000	31,000	0.567	9,072	17,577
6.	18,000	35,000	0.507	9,126	17,745
7.	18,000	35,000	0.452	8,136	15,820
8.	18,000	35,000	0.404	7,272	14,140
9.	18,000	35,000	0.361	6,498	12,635
10.	20,000	40,000	0.322	6,440	12,880
				135,894	166,631

NPV = Discount Total Benefits – Discounted Total Costs
Or
NPV = Present Value of Benefits – Present Value of Costs

= $166,631 - $135,894
= $30,737

The net Present Value (NPV) criterion is an absolute figure to decide whether investment in a particular project or a number of alternative projects should be implemented or not. It NPV than zero, than investment in the project is worthwhile. In the case of the selected of a project from a number of alternative projects, the projects would be arranged in descending order of NPV.
NPV being an absolute figure does not provide us with the information on the rate of return on investment. It is not so much the value of net present value which is a guiding factor as the cost of getting the NPV. In order to get an indicator of this type, another investment criterion which is commonly used is the Benefit Cost Ration (BCR).

Benefit Cost Ratio (BCR): The procedure of deriving the benefit cost ratio criterion is the same, as that of NPV. The ratio between the two would give us the benefit cost ratio which indicates benefit per dollar of cost. The formula of BCR is shown as follows.

$$\text{Benefit Cost Ratio (BCR)} = \frac{\text{Discounted total benefits}}{\text{Discounted total cost}} \text{ or } \frac{\text{Present value of benefits}}{\text{Present value of costs}}$$

$$= \frac{\$166,631}{\$135,894} = 1.23 \text{ time}$$

It BCR is more than one investment in the project is worthwhile because of the Benefit Cost ratio is shown 1.23:1.00. In the selection of a project from various alternative projects, select that project whose BCR is highest when projects are arranged in descending order BCR.

NPV and BCR as investment criteria may not provide the same ranking of the projects. This is clear from the following example.

Project	Present value benefits	Present value of costs	NPV	BCR	Ranking by	
					NPV	BCR
X	150	100	50	1.5	11	1
Y	260	200	60	1.3	1	11

Thus the NPV criterion ranks project Y as 1 and X as 11, BCR reverse this ranking. In an investment decision, the selection of investment is equally important. As long as we are concerned with a single project of two or more projects whose costs are the same, the NPV criterion is adequate but in a situation of more than one project with different costs. NPV as an absolute measure fails to provide a correct choice. In the case of more than one project is provided by the BCR. To recapitulate BCR criterion states (1) in the case of single project the project select the project it BCR is greater than one, and (2) in the case of more than one project, rank the project in descending order to BCR. The number of projects to be chosen depends upon the availability of investment funds.

Internal Rate of Return (IRR): Internal rate of return is another measure of using discounted cash flow for arriving at the worth of the project, by finding out that rate of return which makes NPV = 0 or BCR = 1. In fact, IRR itself is a discount rate which makes NPV = 0 and BCR = 1. Its represents is essentially the average earning power of money used in the project over the project life. It is difficult to calculate IRR except through the application of an interpolation formula. The following formula is used to find out IRR quickly.

$$IRR = LRD + \left(\frac{NPV_{LDR}}{NPV_{LDR} - NPV_{HDR}}\right) \times (HRD - LDR)$$

Where, LDR = Lower rate of discount at which NPV is positive,
HRD = Higher rate of discount at which NPV is negative
NPV_{LDR} = Higher rate of discount at which NPV is negative
NPV_{HDR} = Higher rate of discount at which NPV is negative

In order to apply this formula, one lower rate of discount has to be applied which will show a positive NPV. We have done this. At 14% of discount rate out NPV is positive. We shall have to calculate NPV at a higher rate of discount with a negative value of NPV. Let us take 14% as the lower discount rate and 35% as the higher discount rate and calculate the NPV at 24%. The Calculation is given below.

Year	Cash inflow / Costs ($)	Cash Outflow / Benefits ($)	PV of $1 @ 24%	Discounted Costs ($)	Discounted Benefits ($)
0	50,000		1	50,000	-
1.	10,000	$20,000	0.806	8,060	16,120
2.	12,000	22,000	0.650	7,800	14,300
3.	15,000	30,000	0.524	7,860	15,720
4.	16,000	30,000	0.423	6,768	12,690
5.	16,000	31,000	0.341	5,456	10,571
6.	18,000	35,000	0.275	4,950	9,625
7.	18,000	35,000	0.222	3,996	7,770
8.	18,000	35,000	0.179	3,222	6,265
9.	18,000	35,000	0.144	2,592	5,040
10.	20,000	40,000	0.116	2,320	4,640
				103,024	102,741

NPV at 12% = $166,631 - $135,894 = $30,737

NPV at 24% = $102,741 - $103,024 = (-)$283

$$\text{IRR} = 14 + \frac{\$30,737}{\$30,737 - (-\$283)} \times (24 - 12)$$

$$= 14 + \frac{\$30,737}{\$30,737 + \$253} \times 12$$

$$= 14 + \frac{\$30,737}{\$30,990} \times 12$$

$$= 14 + 11.90$$

$$= 25.90\%$$

However, IRR on its own does not provide a criterion for selection of projects. It needs some other variables that is, the market rate of interest, or the social rate of discount for comparison to arrive at the decision. IRR as investment criteria can be written as follows.

(1) Choose a project if IRR of the same is greater than market rate of interest, social discount rate or social opportunity cost.
(2) With more than one project, rank the project in a descending order of value of ERR and choose that set of projects for which IRR is greater than or equal to market rate of interest subject of available investment funds.

8. Project Acceptability Criteria

(1) Net Present Value (NPV) if NPV > 0 acceptable
If NPV < 0 reject
If NPV = 0 ambiguous
(2) Benefit Cost Ratio (BCR) if BC > 1 acceptable
If BCR < 1 reject
If BCR = ambiguous
(3) Internal Rate of Return (IRR) if IRR > mkt. rate of interest acceptable
If IRR < mkt. rate of interest reject
If IRR = mkt. rate of interest ambiguous

9. Types of Project Appraisal

Thus far, we have discussed the various types of feasibility studies and the widely used methods used in such studies. It is now essential to have a glance at the different types of project appraisal. These are as follows.

(1) Technical Appraisal
(2) Financial Appraisal
(3) Economical Appraisal
(4) Social Appraisal or Project Appraisal for Service Sectors.

Technical Appraisal: By Technical appraisal we mean analysis of technical and engineering aspect which is mainly done when a development project is being examined and formulated. An important aspect of Technical Appraisal is concerned with the materials and inputs required, specifying their properties in some detail and setting up their supply program. There is close relationship between the study of materials and inputs and other aspect of project formulation particularly those concerned with location, technology and equipment. Generally technical appraisal is undertaken by the sponsoring or executing agency through their available qualified technical personnel. But for large national projects particularly financed by international donors it becomes necessary to consultants for unbiased technical appraisal.

Financial Appraisal: Financial appraisal conducted from the point of view of private entrepreneur includes only direct costs and direct benefits valued at marketed prices. Under financial appraisal, marketing feasibility, technical feasibility, financial and managerial soundness are examined to measure the investment worth. Financial appraisal seeks to ascertain whether the proposed project will be financially viable in the sense of being able to meet the burden of servicing debt and satisfy the return expectations of the investor's of capital.

Economic Appraisal: Economic analysis attempts to assess the overall impact of a project on improving the economic welfare of the country. In economic analysis profitability or efficiency of a project assesses from the point of view of a nation as a whole. It includes both direct and indirect costs and benefits in terms of shadow price or accounting prices. Economic analysis includes all members of the society and measures the projects positive and negative impacts in terms of willingness to pay for units of increased consumption and to accept compensation for forgone units of consumption. In this analysis attempts have been made to include social costs and benefits, applying shadow prices instead of market prices to reflect true scarcity values of inputs and outputs of a project.

The purpose of the economic analysis of projects is to bring about a better allocation of resources, leading to enhanced income for investment or consumption. All resources, inputs and outputs have an opportunity cost through which the extent and value of project items are estimated. Project should be chosen where the resources will be used most effectively. Economic values reflect the values that society would be willing to pay for a good or a service. Financial values, in contrast, are the prices that people actually pay. In economic analysis the main task is to convert the financial prices into economic values or to adjust the financial prices so that they more accurately represent economic values. So an understanding of the difference between what is actually paid and the willingness to pay value is very important.

Social Appraisal or Project Appraisal for Service Sectors: By service sector project we mean the project which do not give rise to tangible output but provide service benefit to the society, that is, intangible benefit. Intangible benefits may be qualified only indirectly through compensation principle, prospective beneficiary being ready to pay towards the cost of the project for the psychological satisfaction, one would have to forego had the projects been shelved. These types of projects provide only service benefits with can hardly be qualified. Such benefits may be accrued either to an individual or to a community. Projects embody social welfare and qualitative improvement objectives and do not respond to quantitative terms. Appraisal of such projects is to be carried out in terms of cost effectiveness of the program as well as some evidence of achievement objectively verified. The objective is to see whether the same result can be obtained through adoption of alternative technologies or strategies.

Conclusion

This research paper is just the presentation of the appraisal of production /service sector project; the total impact of an investment project on the economy is considered which means that the costs and benefits are viewed from the point of view of the national economy. The overall objective of technical appraisal, financial appraisal economic appraisal analysis is to maximize net output or

income of the society or nation as a whole or to maximize the value of society's consumption over time. Economic analysis has tendered to focus on the promotion of economic efficiency. Economic efficiency is attained when the economy is functioning in a way that maximizes that value. An economic analysis of a project gives an indication to the government of the real return on investment regardless of the institutional and financial arrangement that might subsequently be made for implementing it. The inputs consumed and outputs delivered by the projects should be valued at their true economic worth. It seems to be a healthy project economies sign, indeed.

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