



Project Finance & Techniques

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What is Project Finance?

- Project finance is the long-term financing of infrastructure and industrial projects based upon the projected cash flows of the project rather than the balance sheets of its sponsors.
- Project Finance is a process of evaluating and selecting long term investments that are consistent with the goal of shareholders (owners) wealth maximization.
- Project means a business venture.

Nature of project

- New / Green Field Project
- Expansion of existing facilities at the same or different location
- Forward / Backward Integration
- Diversification
- Drafting Debt Restructuring Schemes

Importance of project finance decisions

- Irreversible in nature.
- Impact long term profitability of the business.
- Impact on competitive position of the business.
- Impact on risk perception about the Company.

Process of project finance

- Planning: basic analysis to determine whether a project is worthwhile to justify a feasibility study.
- Analysis: economical, commercial, technical, ecological, marketing analysis.
- Selection: final selection on the basis of findings in the analysis. Analysis of results of NPV, IRR, Payback period, sensitivity analysis, etc.
- Financing: debt / equity.
- Implementation:
 - Project & Engineering designs.
 - Approvals & permissions
 - Negotiations & Contracting
 - Construction
 - Training
 - Plant Commissioning
- Review: Periodic review once the project has commissioned.

Role of CA' s

- Before Commencement of project.
 - Assist in project identification.
 - Carrying out Technical, Commercial & Financial Feasibility Study.
 - Preparation of Detailed Project Report ("DPR")
 - Assisting in selecting optimal capital requirement / structure.
 - Arranging for finance & negotiations with the financiers.
 - Equity funding
 - Debt Funding
 - Negotiations with the vendors / contractors for the project.

(Beneficiary: Borrower)

Role of CA' s

- Before Commencement of project:
 - Independent appraisal of the project.
 - Vetting of DPR's
 - Carrying out TEV Studies of business ventures
 - Certification about net worth of the borrowers

(Beneficiary: Lender)

Role of CA' s

- During the implementation of the project

Periodic reports / certifications:

- Work Progress.
- Cost Incurred.
- Sources of Finance used in the Project.
- Act as Lender Independent Engineer.

(Beneficiaries: Borrowers / Lenders)

Role of CA' s

- At the Completion Stage

- End use of funds report

(Beneficiary: lenders)

Most preferred work area

- Arranging for debt / Bank finance
- Facets of Bank Finance:
 - Debt is cheaper source of finance.
 - Tax shield
 - Easy access to Bank finance
 - Government schemes implemented through nationalized banks

Pre-requisites for the engagement

- Have you visited the site?
- Past experience of industry / make inquiries about the company product.
- Most Important:
- [ad&pl case study.docx](#)
- Study the financials of the clients thoroughly.

Steps in Debt Finance

- Approaching the Bank.
- Obtain the Approval in Principle / Activity Clearance if necessary.
- Understand the Bank hierarchy system for sanctioning of facilities
- Prepare a thorough project report.
- Identify the security that the client is willing to offer & it fits the Bank's FACR
- Prepare the file as per the checklist of the Bank.

Steps in Debt Raising

- Obtain copies of annual returns of the clients / promoters.
- Need for provisional financial statements. (ensure that the same is signed by the regular auditors)
- Bank has its own rating model.
- Get the sanction letter from Bank.
- Complete the documentation process and comply with the terms of sanction.
- Credit rating from external agencies may have to be done post disbursal.

DPR / TEV Reports

- Major documents to firm up the decision on going ahead with a business venture or to drop dead the idea.
- Hence analysis has to be elaborate & extensive.
- The view needs to be really independent / unbiased / impartial.

Contents of DPR / TEV report

- DPR / TEV is a medium of communication between the borrower and the lender.
- It needs to give elaborative information about the borrower, their expertise / experience in the proposed venture, the proposed venture, the reasons for going ahead with the business venture, and the factors that have been evaluated to arrive at the decision for firming up on a business venture

Table of Contents of a DPR /TEV report

- The standard table of content for a DPR is as under:
- [contents of a DPR.docx](#)

Facets of Project Analysis / Main Sections of a DPR

- Market Analysis / Commercial Feasibility
- Technical Analysis
- Economic / Financial Analysis

Market Analysis

- To Include:
 - Aggregate demand for the proposed product
 - Market share of the project under appraisal
 - Consumptions trends in the past
 - Past & present supply
 - Production possibilities & constraints
 - Imports & Exports situation
 - Cost structure
 - Elasticity of demand
 - Structure of competition
 - Distribution channels & marketing policies

Source for Market related Information

- Collection of Secondary Data
 - Sources of secondary data: National Sample Survey report, census India, plan report, statistical abstracts, economic surveys industry potential reports by various agencies such as crisil, dunn & bradstreet, ORG, & website of industry associations, web-sites of relevant ministry, other information available in public domain, etc.
- Conducting a fresh market survey

Technical Analysis

- Choice of Technologies
 - Plant Capacity
 - Cost and total capital outlay
 - Principal raw materials required
- Appropriateness of technology
- Technical arrangements for knowledge support.
- Information about the product & its applications / target customer group
- Planned product mix (in case multiple product business)

Technical Analysis: Care to be taken

- Location & Site
- Building & Factory layout.
- Machinery layout plans
- Availability of necessary infrastructure:
 - Power arrangements
 - Water availability
- Labour situation
- Government policies & political environment
- Legal environment
- Climatic factors
- Impact of each of the above aspects whether is considered in the estimation of project cost

Technical Analysis: Land

- Proposed site, reasons for selection, locational advantages.
- Whether purchased / to be purchased.
- Whether purchased / proposed to be purchased from single owner / multiple owners.
- Title Clearance.
- Whether agricultural / NA
- Whether agreement is registered?
- Whether appropriate stamp-duty paid?
- Cost of Land to be considered as project cost.

Technical Analysis: Plant & Machinery

- Whether plant layout is prepared?
 - Necessary to ascertain the total area requirement for factory building & the utility structures required
- Manufacturing process-wise machinery requirement to be obtained.
- Workings of plant installed Capacity.
- List of all items of plant & Machinery & equipment required along-with the estimated cost of purchase. (Inclusive of all taxes & installation charges)
- To the best extent possible, ensure estimates have backing of pro-forma

Technical Analysis: Building

- Whether Architects Plans are prepared.
- Whether building plans are in line with the machinery lay-out.
- Status of approvals in respect of construction.
- Whether MOEF Clearance is required?
- Whether consent to establish has been obtained / status.
- Architects Estimate on the cost of construction of building & other utilities.

Technical Analysis: Power requirement

- Status of application for grant of power.
- Working of the power requirement.
- Check availability of power at the site location
- Through broad inquiries ensure that there is no power shortage in the area.
- For this personal visit to site is important.

Technical Analysis: Labour

- Kind & Type of labour required.
- Availability of such labour to be assessed.
- Preparation of wage budget on the basis of planned capacity utilisation.
- This would be in context of the type of machinery used.
- This would also be required for determining the profitability.

Technical Analysis: Implementation Schedule

- Prepare implementation schedule for building construction and for purchase of plant & machinery.
- The same would be necessary for deciding the quarter-wise cash outflow.
- Pre-construction interest and loan drawdown.

Technical Analysis: Project Cost

- Land Cost: includes basic cost, registration charges, stamp-duty, other incidental charges
- Land development charges / cost appropriately considered.
- Plant & Machinery cost to include all taxes & duties along-with installation charges & incidental expenses.
- Building: based on architects certificate, to include cost of hiring professionals, etc.
- Accurate Estimation of Project important for reliable financial analysis

Financial Feasibility: Estimated Project Cost

- Cost of project:
 - Land & Site Development
 - Building & Civil Works
 - Plant & Machinery
 - Technical know how and engineering fees
 - Cost incurred on foreign technicians for installation of plant
 - Miscellaneous fixed assets
 - Cost of trial runs
 - Preliminary expenses & capital issue expenses
 - Pre-operative expenses
 - Margin money for working capital

Means of Finance

- Equity capital
- Term loans
- Debenture capital
- Deferred credit
- Unsecured loans / quasi capital
- Important aspect: Minimum promoters contribution to be based on the lender's policies. The ratio between equity to quasi equity may have to be maintained as per lenders norms.
- Revaluation Reserves not considered as equity.
- Non-Cash elements in equity not considered by lenders for debt equity ratio.

Margin requirements

- In case of Bank Term Loans:
 - Land & Building: 30%
 - Plant & Machinery: 25%
 - 2nd Hand Machinery: 40%
 - Generally Banks there is apprehension about financing purchase cost of land.
 - Reimbursement of cost incurred, higher margins may be stipulated.
 - Generally cost incurred upto one year before are eligible for Bank finance

Financial Feasibility

- Prepare:
 - Projected Income & Expenditure Statement
 - Project Balance-sheet
 - Projected Cash-flow
- Elaborately state the basis of assumption.
- Comparables of other companies where-ever possible would be useful
- Past results of company may be

Financial Feasibility

- Project Evaluation:
 - IRR
 - NPV
 - Simple Payback Period
 - Break-Even Point
 - Cash Break Even Point
 - DSCR

Financial Feasibility

- Sensitivity Analysis
 - 5 % increase in raw material costs.
 - 5% decrease in selling price.
 - 5% increase in raw material cost accompanied with 5% decrease in selling price.
 - 10% decrease in volume.
- Impact of the above scenarios on the financial parameters discussed earlier.

Working Capital Requirement

- Based on trade receivables, inventory levels & extent of trade credit available in the business.
- Thumb rule: 25% to 25% of the estimated sales for the year.
- Assessment & review on a yearly basis. Short review possible.

Assessment of Working Capital

- A.) Estimation of Level of Gross Working Capital
- B.) Estimation of level of current liabilities.
- C.) Determining Net Working Capital.
- D.) Determination of Promoter's Margin.
- E.) Calculating MPBF.

Methods of lending

- First Method: 25% of WC Gap is promoters contribution. Thus 75% of WC Gap is MPBF
- Second Method: 25% of total Current Assets is to be promoters contribution.
- Nayak Committee: 25% of estimated sales, promoters margin at 20%.
- Each Lender Bank has its mechanics for WC Margin.

EXAMPLE

- Calculation of Current Ratio under two methods of financing:
- [CA CL.xlsx](#)
- Your turn: Calculate MPBF
- [Calculate MPBF.docx](#)

Caution

- Eligible Drawing Power is limiting factor.
- Careful in projecting the need for WC & Bank finance
- DP calculation monthly. Stock debtor statements required to be submitted to financing Bank.

Points to Remember

- Most realistic estimation of project cost.
- Avoid loose assumptions while building up projected financial statements.
- Over / under estimation to be avoided.
- What client wants may not always be required. Guide the client on the same.
- Analyze the client before accepting the engagement.
- Personally visit the site before accepting the engagement.
- Confidence & trust are hard to earn.



Thank-You