Business/Share Valuation – Methodologies, Tools & Techniques

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"Everything that can be counted does not necessarily count; everything that counts cannot necessarily be counted"

Albert Einstein 1879-1955, German-born American theoretical physicist

Meaning of Valuation

Business valuation means obtaining the real economic worth of the business owned by the owners. The dictionary meaning of the Valuation, a noun, is *'the act of determining the value or price of anything; evaluation; appraisal; determined or estimated value or price on the market; estimation of the worth, merit, etc. of anything'* The valuation brings out the actual value in monetary terms of the owner's worth or equity. If calculated using proven methods and techniques, the business valuation serves many purposes. Conversely, wrong valuation could lead to incorrect and erroneous inferences and conclusion. It is essential to measure, assess and determine the true value of one's investment. The appropriate methods of valuation take care of inflationary tendencies by discounting the cash flows. In the words of Alex Kindler **"Valuation is almost like a management report card. By getting a valuation done on some periodic basis, it can give a business owner a sense of how much their business increased or decreased during some certain time period."**

Purpose of Valuation

The valuation of business becomes necessary under many circumstances, which may include:

a. Acquisition
b. Takeover
c. Merger/Demerger
d. Sale/Disinvestment
e. Public Issue
f. Share Pledge

It is through the process of valuation of business that the economic value of the shareholder's networth is determined. The process encompasses different valuation tools and techniques, which are adopted/used by the valuers to determine the price at which the business will ultimately bought and sold. There may be other purposes for a business valuation including appraising the value in case of taxation disputes, determining value of partners' shares etc.

An important concept in business valuation is that value often depends on the intended purpose of the valuation; therefore, the same business often has different values depending on the valuation purpose. For example, a valuation performed for an acquisition would differ from valuation performed for Employee Stock Ownership Plan (ESOP). It is, therefore, important for the

valuation analyst to fully understand and properly document the intended purpose of each valuation.

Valuation Analyst

The task of valuation is generally assigned to a valuation analyst who carries out the detailed valuation procedure. It is important for the professional valuer to be well versed with all business valuation methodologies. Understanding the reasons for business valuation and the circumstances surrounding the business valuation are essential before commencing the process of valuation. The business value standards are the hypothetical conditions under which the business will be valued. The premise of value relates to the assumptions, such as going concern concept. The effect of choice of business value standards and the premises of value would largely determine the value finally arrived at. The factors such as orders in hand, the competition in the market etc would determine and affect the value of business proposed to be sold or bought. The assumptions are essential to achieve a consistent value, which permits comparability with similar businesses. The application of generally accepted valuation techniques is vital for a standard valuation.

Due Dilligence and Valuation

Due Dilligence refers to the process of appraising, assessing and evaluating business risk with analysis of cost benefit which is involved in Valuation. It is like trying to find a switch to put on the light while entering a dark room. The value largely depends upon scanning of information and records available. Due

Dilligence embraces the assessment process to arrive at appropriate value. The process of due diligence cannot be sidestepped in Valuations.

The due diligence process includes review of cash flows – past and future, status of tax assessments and its financial impact, valuation of assets, digging out hidden liabilities after an independent assessment, assessment of viability, review of technical feasibility, assessment and analysis of information technology security systems etc.

Steps in Valuation

The valuation largely involves the following steps: -

1. Identification of the purpose of Valuation.

2. Review and Study of past Business operations.

3. Study of Information System within the organization.

4. Collection of Documents.

5. Assemblage of Key Information from Management and Independent sources.

6. Compilation of facts and figures.

8. Assessment of findings.

9. Preparation of Valuation report.

Collection of Documents/Information

The following is the illustrative list of documents/information required to be collected by the valuation team prior to embarking upon the journey to value business: -

1. Memorandum & Articles of Association of the entity.
2. Financial Statements consisting of Balance Sheet, Profit & Loss Account, Schedules, Cash Flow Statement, Notes to Accounts, Auditor's Report and Director's Report for last 3 years or 5 years.
3. Projected Business and Income Scenario.
4. Intellectual Property Rights – Copyrights, Patents & Trade Marks
5. Pending Litigation details with estimated financial liability
6. Marketing Network Details with feasibility studies
7. Brand and Goodwill Valuation
8. Internal audit Reports
9. Tax Assessments and Tax Audit Reports for last 3 or 5 years.
10. Technical Feasibility Reports
11. Pending Contracts/Orders in hand.
12. Statement of Inventory for last 3 or 5 years
13. Employee Contracts

14. Payroll Liability
15. Status of Statutory Dues including Labour Dues
16. Titles and ownership of Property and Assets
17. Status of Contingent Liabilities
18. Sales and Purchase Agreements
19. Pricing Policy
20. Warranty Agreements
21. ESOP's and Sweat Equity Shares
22. Segment Information
23. Nature and Background of business
24. Dividend pay out in the past
25. Market price of comparable publicly traded companies
26. Tax returns
27. Accounts receivable, accounts payable and inventory detail
28. Annual Budgets
29. Information about Competition
30. Industry scenario and future outlook
31. Cost of equity capital
41. Business valuation multiples

Assemblage of Information from Independent Sources

The valuation process also involves procurement of information from independent sources.

1. Industry Data
2. Independent Search of Title Deeds
3. Market Reports and Studies
4. Customer Reports
5. Product Feasibility Report
6. Procurement of certified copies of Financial Statements and other documents
7. Search Report for Charges and Mortgages
8. Credit Report from Bankers/Financial institutions

Review of Documents/Information

The collection of documents and assemblage of information would then lead to review of information/documents procured. This generally involves the following: -

1. Over valuation of Assets
2. Under Valuation of Liabilities
3. Hidden Liabilities
4. Product warranties/claims
5. Financial Liability arising out of Pending Litigation
6. Guarantees/Comfort Letters/Letters of Credit given
7. Statutory Dues Liability including Interest and Penalty
8. Non-recoverable Assets
9. Bad and Doubtful Debts
10. Likelihood of accrual of contingent liabilities

11. Over valuation of Intangible Assets
12. Technological Obsolescence
13. Tax liabilities in future
14. Status of Labour Management Agreements with reference to retrenchment
15. Slow-moving, Non-moving & Obsolete Inventory
16. Valuation Method of Inventory
17. Compliance of various Laws
18. Compliance of Accounting Standards
19. Intellectual property Restrictive Covenants
20. IT security measures
21. Identification of Items not disclosed
22. Correctness of financial figures

Elements of business valuation

A. Economic conditions

A narrative of national, regional and local economic conditions existing as of the valuation date, as well as the conditions of the industry in which the subject business operates is generally stated in the Valuation Report. The statistics used for analysis of economic conditions is obtained from Government Regulatory bodies, Industry and Trade Associations, Chambers of Commerce and Central Banking Institution.

B. Financial Analysis

Under financial analysis, the valuation analyst undertakes ratio analysis, (liquidity, turnover, profitability, leverage etc.), trend analysis and industry comparative analysis. The financial analysis is done horizontally as well as vertically. *Horizontal analysis* means comparing the financial data of the business enterprise and the industry over the past years to determine a trend. *Vertical Analysis* is a method by which the financial data within a year is compared and analyzed. By comparing a company's financial statements in different time periods, the valuation expert can view growth or decline in revenues or expenses, changes in capital structure, or other financial trends. The risk assessment is an integral part of valuation process, which helps in assessing the discount rate and the selection of market multiples.

C. Adjustment of financial statements

The adjustment in financial figures is necessary to erase the abnormalities and arrive at normalization. The process of adjustment is referred to as normalization process. It is usually falls into the following four categories:

Non-operating Adjustments

It is important to purge the non-operating assets such as idle Plant & Machinery, Excess capacity, Excess Cash etc from the financial statements. It is based on the premises that the buyer is concerned with the operating assets only and is not interested in taking over such assets. This defines the importance of fair market value. If any asset, which does not assist in

fetching any return from the market, is usually not valued or is determined at negligible value. In the category of non-operating assets, the condemn machinery would also be included.

Industry Adjustments

It is necessary that the financial statements of the business enterprise are in line with the other business enterprises in the same industry. For this purpose, the adjustments are made in the financial statements in accordance with industry trends and policies. The comparison becomes possible by elimination of variation in the data.

Adjustment for Extraordinary or Non-recurring Items/Events

It is likely that financial statements show figures due to the effect of extraordinary items/events. The effect of such extra-ordinary/non-recurring events/items is excluded. The reason behind their exclusion rest on the fact that should the impact of such items is not excluded the valuation would be incorrect. The future expectation of performance would be impaired if such items are not excluded.

Discretionary Adjustments

There are various other items where the valuation analyst has to use his discretion whether to exclude or adjust a particular item. This would include payment of royalty, rent and other payments to promoters, companies belonging to promoters, associates, and relatives. The

individual cases are scrutinized and analyzed to arrive at a decision to adjust such values.

"However good our futures research may be, we shall never be able to escape from the ultimate dilemma that all our knowledge is about the past, and all our decisions are about the future"

Ian Wilson, American scenario planning expert and strategy consultant

Valuation Methodologies

There are various methodologies used for valuing a business/company. The main bases used to do so are: -

a. Assets Basis
b. Earnings Basis
c. Income Basis incorporating the dividend and discounted cash flow methods

Within each of these methods, there are various techniques for determining the value of a business. Generally, the income basis determine value by calculating the net present value of the benefit stream generated by the business (discounted cash flow); the asset-based basis determine value by adding the sum of the parts of the business (net asset value); and the market basis determine value by comparing the subject company to other companies in the same industry, of the same size, and/or within the same region.

The Valuation analyst has to exercise discretion as to the use of the basis for the purpose of valuation. The benefits and disadvantages of each method need to be assessed prior to selection and adoption of method of valuation. In practice, however, the valuation is arrived at using multiple methods. The value arrived at using different methodologies is then compared, analyzed and reconciled.

Net Assets Basis

The value of a share (in a class of shares) is equal to the net tangible assets (after deducting liabilities) attributable to a class of shares divided by the number of that class of shares in issue.

Firm value = Book value of all assets *less* book value of outside liabilities

The qualitative features of this method and the risks in adoption of this method are: -

- One of the most widely used methods
- Based on historical numbers
- Ignores future
- Accounting numbers are flawed and can be easily manipulated
- Ignores intangibles
- Ignores risk
- Price paid for an asset may have no relation to its value in operation or if it had to be sold or replaced

The asset basis to business valuation is based on the principle of substitution: no rational investor will pay more for the business assets than the cost of procuring assets of similar economic utility. The basis is relatively objective as compared to income basis. The books are maintained on historical cost basis i.e. acquisition price net of depreciation. The value of a company's intangible assets, such as goodwill, is generally impossible to determine apart from the company's overall enterprise value. For this reason, the asset-based approach is not the most probative method of determining the value of going business concerns.

The Asset basis produces a result, which is generally skewed downwards and is less than the fair marked value. Adjusted net book value may be the most relevant standard of value where liquidation is imminent or ongoing; where a company earnings or cash flow are nominal, negative or worth less than its assets; or where net book value is standard in the industry in which the company operates.

Some of the difficulties encountered in establishing asset valuations include:

a. Are the entities assets to be valued as a going concern or on a break-up basis?
b. What values are more appropriate to use - historic or replacement/current cost values?
c. Are professional valuations required?
d. Have all liabilities been disclosed i.e. are there any hidden/contingent liabilities not disclosed?

Earnings Basis or Comparable Companies Basis

This method involves determination of the annual expected recurrent earnings to be derived from the business that is subject to the proposed purchase/takeover. These earnings are multiplied by an agreed price earnings (P/E) ratio to determine the valuation of the business i.e. **Indicative Value = EPS *multiplied by* P/E Ratio**

It is important to appreciate that a single year's EPS may not be fully representative of past and future performance. Ideally, the due diligence will certify the earnings/EPS for a number of years prior to the potential takeover and an averaged annual earnings will used for the purpose of the valuation.

The earnings approach or comparable companies approach to business valuation is based upon the economic principle of competition that in a free and competitive market, the supply and demand forces will drive the price of business assets to certain equilibrium. Buyers would not pay more for the business, and the sellers will not accept less, than the price of a comparable business enterprise.

Though this method is easy to use, earnings is an accounting figure and is not considered as a meaningful economic quantity. There are a number of other difficulties associated with determining the Price/earnings multiple to be used in any earnings based valuation. These are: -

a. Deciding on the quality of the earnings e.g. recurrent contractual income vs. casual earnings. The perceived quality of earnings will impact on the P/E ratio used for valuation purposes.
b. Allowing for expected future economic and trading conditions
c. Earnings are subject to short-term fluctuations
d. This method assumes all companies can generate the same growth
e. Finding a similar quoted company to use as a benchmark P/E ratio
f. Deciding on a reduction in the quoted P/E ratio to allow for the increase risk associated with an unquoted company

It is essential to consider the future financial impact of the proposed acquisition with the use of this method: -

i) Synergistic benefits expected to arise as a result of the combination
ii) Cost savings to be delivered from the combination
iii) The one off costs of planned post-acquisition changes e.g. rationalization Schemes, redundancies etc.

Income Basis

Dividend Valuation Method

This income-based approach considers that the value of a share is the future expected dividend on shares discounted at an appropriate cost of capital. This method involves the two following steps: -

Step 1: Determining whether dividend growth is expected or not. This will involve an examination of historic dividend payments to discern whether growth has occurred, and, if so by what averaged annual percentage.

Step 2: Applying the appropriate dividend valuation formulae (dependent on whether growth is expected or not) to determine share value

The assumptions on which the dividend valuation model is built include:

- Estimates of future dividend growth based on historic trends are considered accurate
- The chosen discount rate will have ongoing applicability
- Dividends either show no growth or constant growth
- Earnings will continue/increase sufficiently to maintain dividend levels
- Other influences on share price are ignored

When deciding on an appropriate discount rate one must consider both the business risk of the company being valued and the method of finance planned to finance the proposed purchase.

This method is typically used to value an individual share. It would not be commonly used for the purposes of valuing a business/company in a takeover context. This is due to the discretionary nature of dividend policy.

Discounted Cash Flow Method

This method involves discounting the expected future cash inflows expected from a proposed acquisition at an appropriate discount rate to determine the maximum amount. Free Cash Flows are calculated as follows: -

Free Cash Flow *is equal to*
Operating Profit
Minus Taxes on Earnings before Interest & Tax
Plus Increase in Deferred Taxes
Plus Depreciation
Minus Increase in Working Capital
Minus Capital Expenditure

The following steps are involved: -

Step 1 Forecast free cash flows during forecast horizon
Step 2 Estimate the cost of capital (weighted average cost of capital - WACC)
Step 3 Estimate continuing value (= value after forecast horizon)
Step 4 Discount to the present
Step 5 Add the value of excess cash and other non-operating assets
Step 6 Deduct financial debt to get market value of equity

The income method determines fair market value by multiplying the benefit stream generated by the subject or target company times a discount or capitalization rate. The discount or capitalization rate converts the stream of

benefits into present value. The caution to be observed while applying this method is that the discount or capitalization rate must be matched to the type of benefit stream to which it is applied.

The outcome of income basis is generally the fair market value of a controlling, marketable interest in the subject company, since the entire benefit stream of the subject company is most often valued, and the capitalization and discount rates are derived from statistics concerning public companies.

Conclusion

There are several methods that are used while valuing business or shares. No single method can claim prominence over the other. The valuation of business is carried out or determined by using various methods. This *process* gives a range of values within which the value of business can be arrived at. As a thumb rule average of all values generally represent the *fair business value* and is generally acceptable to both the seller and the buyer. The choice of method depends upon the purpose of valuation and factors surrounding the need for valuation. Williams, a British economist, has aptly put it *"Of two equivalent theories or explanations, all other things being equal, the simpler one is to be preferred"*