e-Pathshala पाठशाला
A Gateway to All Post Graduate Courses

MHRD Govt. of India

An MHRD Project under its National Mission on Education throught ICT (NME-ICT)

Subject: Management

Production of Courseware
e-Content for Post Graduate Courses

Paper: 02, Accounting & Financial Analysis

Module: 36, Valuation of Goodwill Need and Methods

e-Pathshala पाठशाला

MHRD Govt. of India

Principal Investigator	Prof. S P Bansal Vice Chancellor Maharaja Agrasen University, Baddi
Co-Principal Investigator	Prof YoginderVerma Pro–Vice Chancellor Central University of Himachal Pradesh. Kangra. H.P.
Paper Coordinator	Dr. O.P Verma Department of Commerce Himachal Pradesh University shimla
Content Writer	Ms. Deepika Gautam Assistant Professor St. Bede's College Department of Commerce & Management

Items	Description of Module
Subject Name	Management
Paper Name	Accounting & Financial Analysis
Module Title	Valuation of Goodwill: Needs and Methods
Module Id	Module No-36
Pre- Requisites	Different methods to measure the value of Goodwill
Objectives	Applicability of different methods in different situations
Keywords	Normal rate, capital, assets, liabilities, remuneration

QUADRANT-I

1.	**Module-36 Valuation of Goodwill : Need and Methods**
2.	Learning objectives
3.	METHODS FOR THE MEASUREMENT OF GOODWILL (i) Average Profit Method (ii) Weighted Average Method (iii) Super Profit Method (iv) Capitalization Method
4.	Summary

LEARNING OBJECTIVES:

This module outlines a comprehensive framework for valuation of goodwill and briefs the circumstances where it may be necessary to value goodwill and the various factors determining the value of goodwill. There are various methods advocated for the valuation of goodwill which are briefly explained in this module with the help of examples to clear the concept deeply. In this module student may able to distinguish between Average profit & Super profit and bottom line difference between Average and Weighted average profit.

METHODS FOR THE MEASUREMENT OF GOODWILL

As such there is no accurate formula laid down for the measurement of the value of goodwill because the value of goodwill vary from firm to firm and depends upon the nature of a particular business and the circumstances connected with it. Various methods are advocated for the valuation of goodwill. In many cases the methods adopted is a purely arbitrary one and is often governed by the custom of the particular trade in which the business is engaged.

The more usual bases of valuation area as follows:

1. Average profits method
2. Weighted average profits method
3. Super profits method

4. Capitalization method

1. **Average Profits Method**: Under the method of average profit for the measurement of goodwill the average profits of given number of past years is calculated and then multiplied by an agreed number is considered to be the value of goodwill. Average profit is calculated by dividing the total profits of the year by the number of years of profit. This method is purely arbitrary and will frequently produce figure for goodwill out of all proportions to it value.

FOLLOWING STEPS NEED TO BE FOLLOWED UNDER AVERAGE PROFIT METHOD TO ARRIVE AT THE VALUE OF GOODWILL

Steps	Particulars
Step 1.	Calculated adjusted past profits for each of the relevant years after making past adjustments, relating to abnormal profits & losses, income from non-trade investments, rectification of errors etc.
Step 2.	Calculate total profit by adding each relevant year's adjusted past profits.
Step 3.	Calculate average profits as under: Average profits = Total profits / No. of relevant years
Step 4.	Calculate average future maintainable profits, after making future adjustments
Step 5.	Calculate goodwill as under: Goodwill = Average future maintainable profit * Number of year's purchase

Formulas: Average (adjusted profits) = Total Profits/ Number of years

Value of Goodwill = Average profit * No. of years purchase.

Merits of Average Profit Methods:

1. This is one of the simple method and very easy to understand and apply.
2. Average profits are more reliable than one year's profits to know the future earning capacity of the firm.
3. Generally, this method is adopted when in a organization a partner retires or expires.

Demerits of Average Profit Method:

1. This method is restricted only up to the value of profits to ascertain the value of goodwill.
2. Capital Employed which is an important factor affecting the goodwill is completely ignored.
3. There is uncertainty regarding the number of years for finding out the average profits and number of years purchase. Therefore, results arrived are far from satisfactory.

Concept of number of years of purchases:

Accounting literature is silent on defining the term of number of years of purchases. The logic for the multiplication of average profits with number of years purchase seems to be that the new partner has to compensate the old partners for assured profits, which former would derive its future for a certain period of time from the date of admission. The period of time for which the profits are assured to new partner is called ‘Number of years of purchase’. It is important to note the number of year’s purchase is based purely on approximation rather than on scientific basis.

Concept of Average profits:

Goodwill (good reputation of the firm) is linked with profits. In case the firms earn more profits there will be more goodwill. In contrary to this, if the profits are less, the amount of goodwill will also be less. Profits are not earned by the business uniformly because business passes through different stages sometime boom and sometime depression which have affect on the earnings of the business. Extraordinary situations such as: power failure, change in economic policies, workers strike, short supply of raw material, fire, war, etc. influence the earnings of business. During the adverse situation the profits are abruptly decreased where as during the favorable situations the profits are sharply increased. If goodwill is calculated on the basis of each year profit there will be too many fluctuations in the amount of goodwill. Therefore, in order to set right all the fluctuations and to ensure better results the concept of average profit is preferred to calculate goodwill.

Example 1: Calculate goodwill of a ABC Ltd from the following details:

Year	Profits
2010	8,000
2011	9,000
2012	6,000
2013	10,000
2014	8,000

Goodwill is 3 year purchase of average profits

Solution:

Total of five year profit = 8,000+9,000+6,000+10,000+8,000 = 41,000

Average Profit = 41,000/5 = 8,200

Goodwill = Average Profit * Number of year of purchase

Goodwill = 8,200 * 3 = 24,600

Example 2: A firm of partners X,Y and Z has the following profits:

Year	Profit

I	20,000
II	30,000
III	40,000
IV	60,000
Total	1,50,000

Goodwill is to be calculated at three year purchase of average profit or last four year profit. Calculate Goodwill.

Solution: Total Profits = 20,000+30,000+40,000+60,000 = 15,0000

Average Profit = Total profit/Number of years

Average Profit = 1,50,000/4 =37,500

Goodwill = Average Profit * Number of year of purchase

Goodwill = 37,500 * 3 = 1,12,500

Concept of Abnormal Items:

The annual profit calculated as per profit & loss account should not be taken as it is, as the basis of goodwill valuation. Such profits must be carefully scrutinized, and if need be adjusted in the light of conditions likely to prevail in future.

Some of the adjustments and their treatment are given below:

Items to be deduct from the profits:

(a) Abnormal profits or extra ordinary gains credited to profit & loss account such as: profit on sale of assets, profit on sale of manufacturing license etc.
(b) Future expenses and provisions likely to be incurred such as: provision for doubtful debts, additional depreciation, if any. Add to the profits

Items to be added in the profits:

(a) Revenue likely to accrue in future from pending contracts.
(b) Abnormal losses or extra-ordinary losses debited to profit & loss account.
(c) Expenses debited to profit & loss account but not likely to occur in future.

(This concept can be clear with the help of this example)

Example 3: Mohan Purchased Ram's business w.e.f., 1st April 2015. The profits disclosed by Ram's business for the last three years were as follows:

Years:

31-3-13 Rs 40,000(Including an abnormal gain of 5000)

31-3-14 Rs 50,000(after charging an abnormal loss of 10,000)

31-3-15 Rs 45,000 (excluding 5000 on insurance premium of firm's property now to be insured)

Calculate the value of firm's goodwill on the basis of two year's purchase of average adjusted profits of the last three years.

Solution:

Calculation of average profit:

31-3-13 = 40,000 – 5000 = 35000 (abnormal profit is to be excluded)

31-3-14 Rs 50,000 +10,000 = 60,000 (abnormal loss is to add back)

31-3-15 Rs 45,000 – 5000 = 40,000

Total Profits = 35,000 + 60,000+ 40,000 = 1,35,000

Average Profits = Total Profits/Number of years

Average Profits = 1,35,000/3 = 45,000

Goodwill = Average Profits * No of years of purchase

Goodwill = 45,000 * 2

Goodwill = 90,000

2. **WEIGHTED AVERAGE PROFIT METHOD**:

This is a modified method of years' purchase of average profits. This method is applicable particularly in the rising trend of profits. Under this method, each year's profit is multiplied by the respective number of weights e.g. 1,2,3,4, etc. in order to find out value of product. The sum of the product is then divided by the total weights to get weighted average profits the weighted profit is then multiplied by Number of year's purchase.

STEPS	PARTICULARS
Step1	Find out the product for each year Product = Profit * Weight of respective year
Step 2	Aggregate the weights.
Step 3	Aggregate the products
Step 4	Find out the average weighted profits in the following manner: Total Product of Profits (Calculated in step 3)/ Total of weight (calculated in step 2)
Step 5	Goodwill = Weighted Average of Profits * No of years' of purchase

Example4: The profits of M, N and O company for the last five years were as follows:

Year	**Profit**
First	3,000
Second	4,000
Third	6,000
Fourth	7,000
Fifth	9,000

Calculate the value of goodwill on the basis of 3 year' purchase of weighted average profits based on weights 1, 2,3,4 and 5 respectively to the profit for the last five year.

Solution:

Years	**Profits**	**Weights**	**Product**
First	3,000	1	3,000
Second	4,000	2	8,000
Third	6,000	3	18,000
Fourth	7,000	4	28,000
Fifth	9,000	5	45,000
	29,000	15	1,02,000

Weighted Average Profit = Product/Weight
Weighted Average Profits = 1,02,000/15
Weighted Average Profits = 6,800
Goodwill = 6,800 * 3 = 20,400

Example 5: The Profits of a Shoe company at Solan are as follows:

Year	Product	Year	Profits
2012	25,00	2014	5,000
2013	35,00	2015	5,500

During 2013 there was an abnormal loss of Rs 500 due to fire and in 2015 there was a gain of 500 from sale of machinery. In 2014 the closing stock was under -valued 600. The weights are 1,2,3 and 4 in the year 2012, 2013, 2014 and 2015. Goodwill is 3 years' purchase of average weighted profits.

Solution:

STATEMENT SHOWING ADJUSTED PROFITS

Year	**Particulars**	**Adjusted profit**	**Weights**	**Product**
2012		2500	1	2500*1 = 2500
2013	Add: Abnormal profits (3500+500)	4,000	2	4000*2=8,000
2014	Add: Under valuation of closing stock (5000+600)	5,600	3	5,600*3 =16,800
2015	Less: Under valuation of closing stock (5500-600+500)	5,400	4	5,400*4=21,600
Total			10	48,900

Average Weighted Profit = Total Product/Total Weights

Average Weighted Profit = 48,900/10

Average Weighted Profits = 4,890

Goodwill = 4,890* 3 = 14,670

Difference between Average Profit and Weighted Average Profit

Basis	Average Profit	Weighted Profit
Product	Product need not be calculated	It is mandatory to calculate product.
Weight	There is no use of weights	Weights are used for calculation
Time of Use	It can be used in any situations	Used particularly in rising trend of profits

3. SUPER PROFIT METHOD:

If a business earns profits in a normal course more than what the other business are earning in the same trade, then it means such a business has some superiority over other business. Such superiority is due to super profits.

Super profits refers to the excess of actual profit over normal profit.

Normal Profits refers to that profit which the firm could reasonably or normally earns in a particular business. It is calculated by multiplying the normal rate of return with the capital employed.

*Normal Profits = Normal rate/100 * Capital Employed*

Methods of calculating Goodwill: The normal profit is compared with the actual profit. The excess, if any, of actual profit over normal profit is called super profit.
After this, the super profit is multiplied by the number of years' of purchase, to find out the amount of goodwill. It can be calculated in the following manner also:

STEPS	PARTICULARS
Step1	Calculate average capital employed as under: Average capital employed = Opening capital employed +Closing capital employed/2 Or Closing capital employed – Half of current year's profit
Step 2	Calculate normal profits as under: Normal profits = Average capital employed* Normal Rate of Return Normal rate of return refers to the rate of return normally earned by an average firm belonging to the same industry.
Step 3	Calculate average future maintainable profits
Step 4	Calculate super profits as under: Super profits = Average maintainable profits – Normal profits
Step 5	Calculate Goodwill Goodwill = Super profits * No. of years' purchase

DISTINGUISH BETWEEN AVERAGE PROFIT AND SUPER PROFIT

Basis	Average Profit	Super Profit
Capital Employed	Capital employed is not required for the calculation of average profit	Capital employed is required for the calculation of super profit
Normal Profit	Normal profit is not calculated	Normal profit is always required
Profit for No. of years	Profit for more than one year is required to get the figure of average profit	Only one year actual profit is required
Normal rate of profit	NRR is not required	Without NRR super profit cannot be calculated
Formula	Total Profit/No .of years	Actual profit – Normal profit

STOP	CHECK YOURSELF
	If a firm does not have super profit, do you think there is no goodwill? Super profit is one of the methods to calculate goodwill. But in the absence of super profit there may be goodwill based on past average profit of the firm. Hence it si not essential that goodwill exists only due to super profits.

Example 6:

The average net profits expected of a firm in future are Rs 68,000 per year and capital invested in the business by the firm is Rs 3,50,000. The rate of interest expected from capital invested in this class of business is 12%. The remuneration of the partners is estimated to be 8,000 for the year.

Find out the value of Goodwill on the basis of two year's purchase of super profits.

Solution:

Normal Profit = 12% of (capital invested) 3,50,000 = 42,000

Expected Profit = 68,000 – (remuneration) 8,000 = 60,000

Super Profits = (Expected Profit) 60,000 – (Normal Profit) 42,000 = 18,000

Goodwill = (Super profit)18,000* 2 = 36,000

Example 7:

On 1st April, 2014 an established firm had assets of Rs 26000 including cash of Rs 520. Its creditors amounted to Rs1300 on that date. The partner's capital account showed a balance of Rs 20,800 while the reserve fund amounted to Rs 3900. If the normal rate of return is 15% and the goodwill of the firm is valued at Rs 4,680 at 3 years purchase of super profits. Find the average profits of the firm.

Solution:

Goodwill = Super Profit *3

4680 = Super profit*3

Super profit = 4680/3

Super profit = 1,560……………………………………..(1)

Super profit = Average profit – Normal profit

Normal profit = Capital employed* Normal Rate/100

Capital Employed = Assets – Liabilities

Capital employed = 26000 – 1300

Capital employed = 24,700……………………………….. (2)

Normal Profit = 24,700 * 15%

Normal Profit = 3,705…………………………………….. (3)

Average Profit = 1,560 + 3,705

Average Profit = 5,265

4. CAPITALIZATION METHOD

Under the method of capitalization, the goodwill may be calculated in two ways:

(a) *Capitalization of Super Profits*: According to this method, the value of goodwill is taken to be an amount which, if invested at normal rate of return in business of similar nature, would give an yield equal to super profit. In other words, the value of goodwill is obtained by capitalizing the super profit on the basis of normal rate.

Goodwill = Super Profit * 100/Normal Rate

Example 8: If super profit of a firm is Rs 3,000 and the normal rate of return is 10%. What will be the value of goodwill?

Solution: Super Profit*100/10

Goodwill = 3,000*100/10 = 30,000

(b) *Capitalization of Average Profits*: Another method of valuation of goodwill is the capitalization of average profit. As per this method, the average profits are capitalized on the basis of normal rate of return. The figure ascertained is known as value of business.
From this the net assets of business is deducted, the balance come out is called goodwill.

Steps to be followed:

Step1	**Capitalized value of business= Average Adjusted =100/Normal Rate**
Step 2	Capital Employed = Total Assets excluding goodwill less outside liabilities
Step 3	Goodwill = Capitalized value of Business less net Amount of Assets i.e. Capital Employed as per Step 2
Note:	Amount of goodwill will be same under both the capitalization methods. In case capital employed is more than the amount of capitalized value of business, there will be no goodwill.

Example 9:

The assets of a firm are Rs 4,500 and the liabilities other than capital are 1,500. The normal rate of profit in this type of business is 10% whereas the firm earns a profit of Rs 500. Find the value of goodwill by following the capitalization method.

Solution:

Capital Employed = Total Assets – Outside Liabilities

Capital Employed = 4,500 – 1,500

Capital Employed = 3,000……………………………. (1)

Capitalized value of 500 @10% = 500*100/10

Capitalize Value = 5,000…………………………………….. (2)

Goodwill = Capitalized value – Capital employed

Goodwill = 5,000 – 3,000

Goodwill = 2,000

Example 10:

From the following information, calculate the value of goodwill of a firm of Gautam & Kapoor.

(a) At 2 years purchase of Average Profits
(b) At 2 years purchase of Super profits
(c) On the basis of capitalization of Super profits
(d) On the basis of capitalization of Average profits
   (i) Average capital employed in the business Rs 7,00,000
   (ii) Net trading results of the firm for the past years are as follows:
   First year profit = Rs 1,47,600
   Second year = loss 1,48,100
   Profit for the third year = 4,48,700
   (iii) Rate of interest expected from capital having regard to the risk involved 18%.
   (iv) Remuneration to each partner for the service provided by them are 500 per month. (Partnership of two members)
   (v) Capital employed 7,23,433

Solution:

Calculation of Goodwill:

(a) At 2 years purchase of Average Profits

Total Profits:

1,47,600 - 1,48,100 + 4,48,700 = 4,48,200

Effective profit = 4,48,200 – (Salary of two partners 500*12 * 2) 36,000 = 4,12,200

(as two partners in a firm)

Goodwill = 4,12,200*2/3

Goodwill = Rs 2,74,800

(b) At 2 years purchase of Super profits

Average profits = 4,12,200/3

Average profits = 1,37,400

Normal profit = 18/100 * 7,00,000

Super profit = 1,37,400 – 1,26,000 = 11,400

Goodwill = 11,400 * 2 = Rs 22,800

(c) On the basis of capitalization of Super profits

Goodwill = 100/NRR * Super profit

Goodwill = 100/18* 11,400

Goodwill = 63,333

(d) On the basis of capitalization of average profits

Value of business = 100/Normal rate of return* Average Profit

Value = 100/18 *1,37,400

Value = 7,63,333

Goodwill = Value of business – Actual Capital

Goodwill = 7,63,333 - 7,23,433

Goodwill = 39,900

SUMMARY:

As such there is no accurate formula to calculate or measure the value of Goodwill, different firms use different methods to calculate goodwill as per their requirement, Circumstances and the nature of a particular product. Various methods are advocated for the valuation of goodwill as discussed in module (like Average profit method, Weighted Average method, Super profit method and Capitalization method) and in many cases the method adopted is a purely arbitrary one and is often governed by the custom of the trade in which particular business is engaged. Generally Average profit method is adopted whenever a partner retires and weighted method of average profit is adopted during the rising trends of profits. Super profit method is that where normal profit is compared with the actual profit to know the excess profit , whereas under capitalization method of goodwill the value of goodwill is taken to an amount which, if invested at normal profit rate of return in business of similar nature would give an yield equal to super profit.