Free essay on concepts and methods of depreciation

Business, Company

An analysis of tax benefits with different depreciation methods

ABSTRACT

An operational asset of the company starts to lose value as soon as it is purchased. This reduction in value can be termed as ‘ depreciation’. This decrease in the value of an asset occurs due to usage, passage of time, wear and tear, technological out dating or obsolescence, depletion, inadequacy, decay etc. Different assets are acquired at a certain value and they depreciate over time. The annual loss in the value of any asset on account of its depreciation can be calculated using different methods (discussed in the essay). Every method has a different effect on the tax calculation for the company or the individual. Faster methods tend to decrease the tax liabilities on the tax payer.

Every business for the purpose of facilitating its trading activities and increasing its revenue, acquires some non-trading fixed assets. For example, if machine A is bought by a company and for some reason, the company decides to sell it the very next day, it is impossible that the company would receive the same price that he had paid for it because the machine becomes an operational asset of the company. That means an asset starts to lose value as soon as it is purchased. This reduction in value can be termed as ‘ depreciation’. This decrease in the value of an asset occurs due to usage, passage of time, wear and tear, technological out dating or obsolescence, depletion, inadequacy, decay or other such factors. Now, any asset that is acquired has a certain value in the account books of the company. Thus, the annual loss in the value of any asset on account of its depreciation, too,

should be properly recorded in the account book, although no direct physical transaction takes place. Finally, a stage is reached when the asset may stop being of use and has no value to the business, and may be sold off, scrapped or salvaged. So overall, depreciation deals with the different issue concerning this gradual change/reduction in the value of an asset. In general, a company owns various assets in the form of machinery, equipments, buildings, furniture, infrastructure etc., which are all acquired at a certain value and they depreciate over time. Depreciation is considered as an expense and is listed in the company's financial statements as an expense. But, it should be noted that the term ' expense' used here is only technical in nature and funds are not really transferred out of the system. Now, depending on various factors, an asset may take different periods of time to depreciate to its salvage value.

Therefore to deal with the issues related to depreciation calculation, method that is being applied, should account for the following –

- Initial cost of the asset (P),
- Economic life of the asset (N),
- Salvage value of the asset (E).

Following are some of the methods used for quantifying depreciation –

- Straight Line Method

Straight-Line depreciation is considered to be the most commonly used method of calculating depreciating value of the assets. It is primarily based

on the assumption that the asset looses an equal amount of value each year. In this method the salvage value of the asset is subtracted from the initial cost and divided by the estimated useful life. This gives a constant value by which the asset depreciates annually (Rate of depreciation – 1/N).

- Sum of Years digit method

Also one of the commonly used methods of calculating depreciation, this method leads to a higher rate of depreciation initially which then reduces progressively in the course of the economic life of the asset.

Sum of Years (SOY) = 1+2+3+. + N = N*(N+1)/2.

Annual rate of depreciation for the mth year= {N-(m-1)}/SOY

It should be noted that the total depreciation is the same in the SOY and straight line methods. But this method gives higher amounts in the first few years. This reduces the book value of the asset and gives higher tax benefits. Thus such a strategy proves to be useful to obtain greater tax benefits in the early years of the economic life of the asset.

- Declining Balance Method

In this method, the depreciation for a given year is calculated on the instantaneous book value of the asset instead of the original purchase price. Also this method does not consider the salvage value of the asset.

Rate of depreciation – M/N (generally M is taken as 2, than the method is called the “ double declining balance” method. And in such a case the rate of depreciation will be double than that of the straight line method)

In this method the decline of the value of the asset becomes faster as compared to the SOY method and the salvage value of the asset is reached earlier. Taxation authorities and regulatory bodies may sometimes allow the

taxpayer to shift from a double declining balance method to the straight line method for calculating depreciation at any point of time in the economic life of the asset. Such a situation can prove to be of benefit when the depreciation calculated by the DDB method becomes lesser than that determined by the straight line method, i. e., when the ratio of the difference between the instantaneous book value and the predicted tax salvage value to the remaining tax life of the asset exceeds the depreciation calculated by the DDB method.

- Sinking Fund Method

This method of depreciation calculation depends upon the " Sinking Fung Factor", which shall be computed taking into account the purchasing price and the salvage value of the asset, the service life and the rate of interest. This factor is determined by using the simple interest formula. The basic motive of this method is to have enough funds to be able to replace the asset at the end of its service life. For this purpose, a fixed sum is set aside from the company's revenue each year and taken to be invested with compounding interest throughout the life of the asset, such that after successive installments, the sum accumulates to produce the original purchase price of the asset minus its salvage value.

- Accelerated Depreciation

This method demands its fame for writing off equipments that might be replaced before the end of its useful life, as it might become out-dated or obsolete. Accelerated Depreciation method allows faster write-offs as compared to the straight lone method, and thus provides a greater tax cover benefit than the straight line depreciation method. For this reason,

companies and firms with higher tax liabilities tend to use the accelerated depreciation method even if it reduces the income shown on the account book statements. One of the best examples of the accelerated depreciation method is the modified accelerated cost recovery system (MACRS), which is used to calculate the depreciation of the assets, specifying the minimum permissible life period for tax computation for different types of assets. This puts a check on the depreciation expenses that would be charged for any asset and stops the tax payer from claiming indiscriminate tax benefits in the initial life of the asset.

Conclusion

Depreciation is decline in the book value of fixed assets. It includes loss of value of assets due to passage of time, usage or obsolescence. It is a continuing process till the end of the useful life of assets. It is a non-cash expense. It does not involve any cash flow.

Having discussed the different depreciation methods, let us focus on the relation between the depreciation method and the tax payment.

Tax laws are extremely intricate and subject to frequent changes. Corporate income taxes levied, are a significant factor in any business/investment proposal. The main types of taxes are property tax, excise tax and income tax. Tax is calculated as a fixed percentage of the net (taxable) income of the company/firm or individual. For calculating the net taxable income, we need to subtract the depreciation and other expenses from the gross income. Now, we know that different methods of calculating depreciation

would give different values in a specific time period. Although the total tax implication remains the same in all the methods adopted for depreciation calculation, the timing of tax payment varies. For the faster methods of calculating depreciation, like the Double Declining Balance method, the tax paid in the initial years is less as the depreciation ‘ expense’ is more, and the net income post-tax is more when compared with the slower methods of depreciation calculation, like the straight line method. For this reason tax-payers tend to use faster methods for depreciation calculations with the sole purpose of saving tax.

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