**Depreciation**

Capital expenditure like building, plant, fixtures and fittings do normally last for more than one year. It is obviously possible that these assets may deteriorate with the passage of time due to its usage. There is therefore the need to recognize the loss in the value of non-current assets in the books of accounts. If this is not done, the value of non-current assets in the statement of financial position will be misstated.

The process of recognizing the loss in the value of non-current assets as a result of using such assets is called depreciation. The Nigerian SAS No. 9 states that depreciation “represents an estimate of the portion of the historical cost or re-valued amount of a non-current asset chargeable to operations during an accounting period”. The standard also recognizes the fact that depreciation for the accounting period is charged to income either directly or indirectly. This definition implies that depreciation is effectively an accrual technique, which matches the cost of a non-current asset with the benefits, which are derivable from the asset.

Non-current Assets produce revenue through use rather than through resale. They can be viewed as quantities of economic service potential to be consumed over time in the earning of revenues. Depreciation recognition transfers a portion of acquisition cost and capitalized post-acquisition cost of non-current to an expense account called depreciation expense. The corresponding credit is the provision for depreciation, a contra non-current assets account that reduces gross assets to net book value. This expense is recorded as an adjusting entry at the end of each accounting period. Depreciation expense could be classified as a selling or administrative expense, depending on the assets function. Manufacturing firms include depreciation of plant and machinery or factory building in the cost of goods produced. When the goods are sold, depreciation becomes part of cost of goods sold.

Certain types of non-current assets have unlimited useful economic lives, and so do not require depreciation. This is usually true of land unless the land is an agricultural land or land acquired for extractive purposes. By contrast, buildings will normally have limited useful economic life, and therefore, will normally be subjected to depreciation.

You must note that the Provision for Depreciation account does not represent cash set aside for replacement of non-current assets; nor does its recognition imply the creation of reserves for asset replacement.

**Important terminologies:**

**Amortization -** Intangible assets such as goodwill, trademarks and patents are written off over a number of accounting periods covering their estimated useful lives. This periodic write off is known as *Amortization* and that is quite similar to depreciation of tangible assets. The term amortization is also used for writing off leasehold premises. Amortization is normally recorded as a credit to the asset account directly or to a distinct provision for depreciation account. Though the write off of intangibles that have no limited life is not approved by some Accountants, some concerns do amortize such assets on the ground of conservatism.

**Depletion-** This method is specially suited to mines, oil wells, quarries, sandpits and similar assets of a wasting character. In this method, the cost of the asset is divided by the total workable deposits of the mine etc. And by following the above manner rate of depreciation can be ascertained. Depletion can be distinguishable from depreciation in physical shrinkage or lessening of an estimated available quantity and the latter implying a reduction in the service capacity of an asset.

**Obsolescence –** The term ‘Obsolescence’ refers to loss of usefulness arising from such factors as technological changes, improvement in production methods, change in market demand for the product output of the asset or service or legal or medical or other restrictions. It is different from depreciation or exhaustion, wear and tear and deterioration in that these terms refer to functional loss arising out of a change in physical condition.

**Dilapidation -** In one sentence Dilapidation means a state of deterioration due to old age or long use. This term refers to damage done to a building or other property during tenancy.

**4.3 NATURE OF DEPRECIATION**

Depreciation is a term applicable in case of plant, building, equipment, machinery, furniture, fixtures, vehicles, tools etc. These long-term or fixed assets have a limited useful life, i.e. they will provide service to the entity (in the form of helping in the generation of revenue) over a limited number of future accounting periods.Depreciation implies gradual decrease in the value of an asset due to normal wear and tear, obsolescence etc. In short, depreciation means the gradual diminution, loss or shrinkage in the utility value of an asset due to wear and tear in use, effluxion of time or introduction of technology in the market. It makes a part of the cost of assets chargeable as an expense in profit and loss account of the accounting periods in which the assets helped in earning revenue.

Thus, **International Accounting Standard** (IAS)-4 provides that “Depreciation is the allocation of the depreciable amount of an asset over its estimated useful life.” In Accounting Research Bulletin No. 22, **AICPA** observed that “Depreciation for the year is the portion of the total charge under such a system that is allocated to the year. Although the allocation may properly take into account occurrences during the year, it is not intended to be the measurement of the effect of all such occurrences.”

**Causes of Depreciation**

There are several factors that contribute to depreciation of non-current assets. These factors or causes can be classified as follows:

1. Physical deterioration: This is where the fall in value of a non-current asset is due to wear and tear as a result of its constant use. Natural occurrences such as erosion, rust and decay will certainly reduce the value of any non-current asset.
2. Economic factors: This is where an asset is put out of use even though it is in good working condition. This occurs where an asset becomes out of date as a result of new inventions or technological advancement. For example bakers use claymolded oven in baking bread. The invention of gas-molded oven will certainly render the former out of date. This factor of depreciation is known as obsolescence.

Another situation closely linked with economic factors is where a noncurrent asset is rendered useless as a result of the growth and changes in the size of business. A fisherman who uses canoe may have to acquire a large fishing boat when the demand for fish increases beyond the capacity that the canoe can cope with. In this situation you can clearly deduce that it would be more efficient and economical to operate a large fishing boat than the canoe, and as a result the canoe will be put out of use, though it is in good working condition. This factor of depreciation is known as inadequacy.

1. Depletion Natural resources such as mines, quarries, oil, coal and gas deposits become worthless when the deposits or resources are depleted. These assets are called wasting assets. The process of providing for the consumption of such assets is called depletion.
2. Time factor: There are certain assets that have specific period of legitimate life span. Assets such as patent, copyrights, finance leases have a legal life fixed in terms of years. As and when the years elapse, the value of these assets reduces. The cost of these assets must be spread over their legal lives. The term used in recognizing the fall in value of these assets is termed amortization.

**Methods of calculating depreciation**

Depreciation is an attempt to allocate the cost of a non-current asset to each accounting period that the asset is used to generate income or earnings. Depreciation may be calculated simply by deducting the amount receivable when the asset is either sold or put out of use by the business from the cost of the non-current asset. The amount that will be received when the asset is sold or put out of use is technically termed the salvage value or the residual value of an asset. The cost less the salvage value is called depreciable value or amount. It is this depreciable value that the accountant seeks to spread over the useful life of a non-current asset.

There are several methods of calculating depreciation. These include:

1. Straight Line Method
2. Reducing Balance Method
3. Sum-of- the-Years-Digits Method
4. Units-of-Output Method
5. Revaluation Method
6. Machine Hour Method
7. Depletion of Unit Method

In order to calculate the depreciation charge for a period, we need to know four factors:

* The cost of (or revalued amount) of the non-current asset.
* The estimated residual value of the non-current asset.
* The estimated useful economic life of the non-current asset.
* The method of depreciation that is appropriate for the business.

**Straight Line Method**

The straight line method is the most widely used method of computing depreciation charge for financial statement purposes. Under this method, an equal amount of depreciation is recorded for each accounting period over the useful life of the noncurrent asset. The depreciation amount is computed by dividing the original cost of the non-current asset less estimated salvage value by the useful life of the asset. A mathematical formula can be deduced as follows:

Annual Depreciation = (Original cost of Asset – Salvage Value)/Useful Life of Asset

**Illustration 1**

On January 1, 2000 Hyde Limited purchased a motor vehicle for N250, 000,000. The motor vehicle has an estimated useful life of five years with a salvage value of N5, 000,000.

You are required to calculate the depreciation charge and accumulated depreciation for each of the years and show the net book value as at the end of 2004 accounting period using the straight-line method.

**Reducing Balance Method**

Under this method of depreciation, the book value of a non-current asset at the beginning of the year is multiplied by a fixed percentage to determine the depreciation for the accounting year. This procedure is repeated in subsequent accounting periods so as to reduce the depreciable value of the non-current asset to zero (i.e. reduce its cost to its residual value).

**Illustration 2**

On January 1, 2000 John Kay Limited purchased plant for N250, 000,000. It is the policy of John Kay to depreciate Plant at 20%. You are required to calculate the net book value as at the end of 2004 accounting period using the reducing balance method.

**Sum-of- the-Years-Digits Method**

Another way of producing systematically declining charges for depreciation is to use the sum of digits method. For this, one merely adds up the digits of the number of years of useful life. For example, for a useful life of six years the sum of digits is 21 (i.e. 6 + 5 + 4 + 3 + 2 + 1). The charge for year 1 will be 6/21, that for year 2 will be 5/21 and so on.

**Double Entry Records for Depreciation**

After calculating the depreciation charge for the accounting year, you must record the amount in the books of account. It is important for you to remember that the process of providing for depreciation is recording for the use of non-current assets during the accounting period. This therefore means that depreciation is revenue expenditure and as such must be recorded in the same manner that accountants record normal business expenses.

There are two main ways of recording depreciation in the books of account of a business organization. The old method and the modern method of recording depreciation. In the case of the former, depreciation charges are recorded in the noncurrent asset account. It is important to note that this method is no longer used in practice. The double entry of depreciation is as follows under the old method:

Dr. Depreciation Expense Account

Cr. The non-current asset Account in question

Dr. Income statement

Cr. Depreciation Expense Account