

## SATISFACTION REGARDING DEPRECIATION METHOD(S): RESPONSE FROM INDIAN INDUSTRY

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### Abstract

Different depreciation methods are available for providing depreciation. In India company law also directs in this regard. Companies Act restrict the depreciation methods to two only viz. SLM and WDV. The present study considers the opinion of respondents from industry regarding the satisfaction or dissatisfaction about the restriction on choice of methods as well as the current method in use by particular company.

**Key words:** Depreciation, methods of depreciation, current methods, Companies Act, industry and sector wise.

### Introduction

**Institute of Chartered Accountants in Austria** says, "Depreciation represents that part of the cost of a fixed asset to its owner which is not recoverable when asset is finally put out of use by him. Provision against this loss of capital is an integral cost of conducting the business during the effective commercial life of the asset and is not dependent upon the amount of profit earned."

**United States Supreme Court**, in Lindheimer vs. Illinois Bell Telephone Company case, defines depreciation, "Broadly speaking, depreciation is the loss, not restored by current maintenance, which is due to all factors causing the ultimate retirement of property. These factors embrace wear and tear, decay, inadequacy and obsolescence. Annual depreciation is the loss that takes place in a year."

According to **Pickles**, "Depreciation is the permanent and continuing diminution in the quality, quantity or value of asset."

**Agarawal** gives the version as, "Depreciation is permanent, continuing and gradual shrinkage in the value of a fixed asset."

**Donald Corbin** explains, "Economists refer to depreciation as the decline in value (caused whether by use or by obsolescence) of the future services, an asset will render."

**Global-investor--Finance Glossary** defines, "Depreciation is the charge in a company's accounts that reflects the reduction in value of an asset over time as its useable life is exhausted. Depreciation is charged before calculation of profit, on the grounds that the use of capital assets is one of the costs of being in business and one of the contributors to profit."

There are two main methods of depreciation:

1. **Straight line:** the residual (scrap) value of the asset is deducted from its original cost, and the resultant figure is divided by the estimated life of the asset. The result of that is deducted annually over the life of the asset.
2. **Reducing balance:** the amount of annual depreciation is a constant proportion of the cost of the asset.

It further considers that depreciation has no effect on cash flow. It is just an accounting procedure.

### Review of Literature

**Smith's** (1951) work was a landmark in the growth of literature in this field. He considered investment in plant as the investment in the future services or product whereas depreciation was concerned with the cost of service or product. To Smith depreciation was neither "wear and tear", nor "decay", nor obsolescence. As per author out of the methods viz. straight-line, sinking fund, diminishing balance, units of production method etc. Unit of production method was the best method.

**Woodward** (1956) presented a paper " Depreciation- The Development of an Accounting Concept " with a view of highlighting the interesting changes which have taken place during the process of development of accounting concept

**Dixon** (1960) in early sixties observed that the sum of years' digits and declining balance methods, now so widely used for tax purposes, might fortuitously approximate real depreciation under certain circumstances, but it would be preferable to develop declining charge curves in which proper allowances for the factors of interest and service deterioration had been made.

**Venkata Rao** (1966) in a published article viz. "Depreciation Methods" considered the merits and demerits of different methods like Straight line Method, Diminishing balance method, Output Method, Production Hour method and Revaluation method.

**Kapoor**, (1973) in his doctoral research titled "Depreciation accounting", considered definitions and methods of depreciation. He made a good discussion on three depreciation methods viz.

- (i) Straight-line Method
- (ii) Reducing balance Method
- (iii) Sum of digits Method and analyzed their impact on business decisions by giving comparative statements of results under different methods.

**Most** (1984) conducted a questionnaire survey from 216 randomly selected Corporations in Florida to test whether the economic lives of depreciable assets were lower than their useful lives. It was observed from the study that the economic lives of depreciable assets in United States tend to be shorter than the useful lives selected by accountants.

### Objectives of study

Following are the main objectives of study:

- To study industry wise opinion of respondents from corporate sector regarding satisfaction on depreciation methods as prescribed under Companies Act.

- To examine sector wise comments from corporate sector officials regarding satisfaction on depreciation methods as prescribed under Companies Act.

### **Sample size and Data**

Primary data has been gathered by way of getting questionnaires filled. 61 officials from various industries and sectors have responded to questionnaires. Annual reports of companies have also been consulted. For theory part various books, journals etc. have been consulted and different websites have been visited.

### **Hypotheses of Study**

Regarding this the following null hypotheses have been designed and tested:

Ho-1: There is no significant difference of opinions amongst the respondents from industry to industry regarding satisfaction on depreciation methods as prescribed under Companies Act

Ho-2: There is no significant difference of opinions between the respondents from public sector and those from private sector regarding satisfaction on depreciation methods as prescribed under Companies Act.

Ho-3: There is no difference of opinion amongst the respondents from different industries with regard to satisfaction of depreciation method currently in use.

Ho-4: There is no difference of opinion amongst the respondents from public sector and those from private sector with regard to satisfaction of depreciation method currently in use.

### **Statistical Technique(s) used**

Chi square Test has been used to establish the results statically.

### **Study**

#### **Satisfaction regarding Depreciation Methods as Prescribed under Companies Act**

Under this section the satisfaction of respondents regarding depreciation methods as prescribed under Companies Act have been empirically explored. Data reveals that 45 out of 61 respondents said that they are satisfied with the depreciation methods prescribed under Companies Act. Whereas 11 respondents are not satisfied and remaining 5 declined to comment on justification or not justification (refer Table 1). Further industry wise figures shown in Table 2 depict that 66.67 percent of the respondents from chemical industry have shown their satisfaction over the depreciation methods as prescribed under Companies Act. Whereas 22.22 percent have negated the satisfaction and 11.11 percent declined to comments on query. The percentage of respondents, who replied in the affirmative, has been 72.22 percent, 50 percent, 75 percent and 88.24 percent in case of electronics and engineering, steel, textiles and diversified and other industries respectively. The percentages of respondents who replied in negative regarding satisfaction of methods prescribed under Companies Act for providing depreciation are 16.67 percent, 50 percent, 25 percent and 5.88 percent in case of electronics and engineering, steel, textiles and diversified and other industries respectively. So far as the inter sector comparisons are concerned (Table 3) all of the respondents from public sector has voted in favour of Methods for providing depreciation. In case of private Sector 39 (70.91 percent) out of 55 said that they are satisfied .11 (20 percent) said that they were not satisfied. On the basis of the results of chi square test there is no significant difference of opinion

amongst the respondents, both across industries and between sectors, with regards to the satisfaction on depreciation methods.

### **Satisfaction of Respondents regarding Depreciation Method Currently in Use**

Here under this section the respondents from corporate sector in India have been asked to respond whether they are satisfied with the depreciation method currently in use. From the data gathered the Tables 4, Table 5 and Table 6 have been constructed.

The responses reveal that 53 (86.89 percent) out of 61 have been found to be satisfied with the current method of depreciation being used by companies. Only 8(13.11 percent) respondents said that they are not satisfied with their current method of depreciation. Table 5 shows that 83.33 percent from chemical, 88.88 percent from electronics and engineering, 50 percent from steel, 75 percent from textiles and 100 percent of the respondents from diversified and other industries are satisfied with their current method of depreciation being used by their respective industry. 50 percent of respondents, who are not satisfied with their current method, belong to steel industry followed by 25 percent in textiles, 16.67 percent in chemicals and 11.11 percent in case of electronics and engineering industries. When considered sector wise the fact emerges that all respondents (100 percents) from public sector are satisfied with their current method of depreciation. In case of private sector 85.45 percent of the respondents are satisfied and 14.55 percent do not satisfied with their current method of depreciation. The further bifurcation of private sector shows (refer Table 6) that 88.37 percent of domestic Indian companies and 75 percent of foreign subsidiaries are quite satisfied with existing method of depreciation. On the basis of the chi-square test results in the above cases, one may conclude that since the computed values of chi-square, both across the industries and between the sectors are lesser than their corresponding critical values with 4 and 1 degree of freedom respectively at 0.05 level of significance in both circumstances, the null hypothesis that there is no difference of opinion amongst the respondents from different industries as well as sector to sector with regard to satisfaction of depreciation method currently in use, are accepted.

### **Suggestions regarding Change of Depreciation Method(s)**

From the survey opinion of respondents from corporate sector in India, following Tables 7, Table 8 and Table 9 have been built with regard to the suggestions for the change in currently practiced depreciation methods. As depicted by the Table 4 only 8 respondents out of 61 are found to be dissatisfied with the existing method of providing depreciation. These 8 respondents i.e. only 13.11 percent have suggested for change in method. The Table 7 indicates the depreciation method suggested by the respondents from corporate sector. Industry wise figures revealed by Table 8 which make it clear that 2 (66.67 percent) out of 3 respondents from chemical industry have suggested unit of production method whereas remaining 1(33.33 percent) favored written down value. 1 (50 percent) out of 2 respondents from electronics and engineering industries suggested written down value method and remaining 1(50 percent) declined to suggest. 50 percent from steel and 100 from textiles suggested change to units of production method. None from diversified and other industries has suggested any change method of providing depreciation. Further as far as sector wise analysis is concerned, an interesting point emerges as that none from the public sector has suggested any change where as from private sector 4 (50 percent) out of 8 suggested units of production method, 2(25 percent) out of 8 suggested written down value and remaining 2 (25 percent) declined to comments

on such suggestions. The data regarding further division of private sector into foreign subsidiaries and Indian origin companies discloses that 66.67 percent of foreign subsidiaries recommended the change to units of production method while 40 percent from domestic Indian companies have recommended the same. 33.33 percent respondents from foreign subsidiaries have suggested changing to written down value method whereas this percentage is 20 percent in case of domestic Indian companies.

### Findings

- 45 out of 61 respondents are satisfied with the depreciation methods prescribed under Companies Act. Whereas 11 respondents are not satisfied and remaining 5 declined to comment.
- The responses reveal that 53 (86.89 percent) out of 61 are satisfied with the current method of depreciation being used by companies. Only 8(13.11 percent) respondents are not satisfied with their current method of depreciation.
- 2 (66.67 percent) out of 3 respondents from chemical industry have suggested unit of production method whereas remaining 1(33.33 percent) favored written down value. 1 (50 percent) out of 2 respondents from electronics and engineering industries suggested written down value method and remaining 1(50 percent) declined to suggest. 50 percent from steel and 100 from textiles suggested change to units of production method. None from diversified and other industries has suggested any change method of providing depreciation.

### Suggestions

- Majorities of the sample companies are using SLM on all types of their assets because of the simplicity and equal installments involved in the method. It is suggested that the companies must consider the appropriate method of depreciation for each type of asset rather using one method on all of their assets e.g. WDV method may be used to depreciate plant and machinery and other assets linked with the technological advancement like computers, electronics gadgets, vehicles etc. WDV method puts an equal burden for use of asset on each subsequent year. Under this method the increase in cost of repairs for each subsequent year is compensated by decrease in the depreciation for each subsequent year. In nutshell it is recommended that different methods for different assets may be used at a time, keeping the yield of asset in mind. If the maximum yield is to be procured from the asset in earlier years, it is better to write off most of the depreciation in earlier years than spreading it evenly over the life of asset.
- Further to enlarge the scope of Companies Act the Government may consider the addition of more depreciation methods and their corresponding rates because in the era of technological advancements accelerated depreciation methods e.g Double Declining Balance Method (DDBM) may be more useful for some assets. This method is similar to WDV method except the rate at which depreciation is charged is twice the straight-line rate. Since the rates of depreciation are double the rates under SLM, so the depreciation charge in the earlier years will be more which would create a shield that enables the business to retain more sources in the early years than it can by straight line method. But till date only two methods i.e. SLM and WDV are prescribed in Companies Act. So it is suggested that an accelerated depreciation method like Double Declining Balance Method may be incorporated in Companies Act.

**TABLE 1**

Analysis of Satisfaction regarding Depreciation

Methods Prescribed Under Companies Act

Satisfied or Not	No. of Respondents	Percentage
YES	45	73.77
NO	11	18.03
No Comments	5	8.20

Source: Compiled from Questionnaire

**TABLE 2**

Industry Wise Analysis Responses regarding Satisfaction on Depreciation Methods Prescribed by Company Act

Justified or not	INDUSTRY					TOTAL
	Chemicals	Electronics & Engineering	Steel	Textiles	Diversified & Others	
a) YES	12(66.67)	13(72.22)	2(50)	3(75)	15(88.24)	45
b) NO	4(22.22)	3(16.67)	2(50)	1(25)	1(5.88)	11
c) No Comments	2(11.11)	2(11.11)	0(0)	0(0)	1(5.88)	5
TOTAL	18	18	4	4	17	61
Obtained Value of Chi Square = 6.0182 at 0.05 level of significance				Degree of freedom = 8	critical value = 15.5	Hypothesis Accepted

Source: Compiled from Questionnaire

**TABLE 3**

Sector Wise Analysis of Responses regarding Satisfaction on Depreciation Methods Prescribed by Company Act

Justified or Not	SECTOR			TOTAL
	PUBLIC (Govt. Companies)	PRIVATE		
		Foreign Subsidiaries	Indian (Domestic Companies)	
a) YES	6(100)	7(58.33)	32(74.42)	45(73.77)
b) NO	0(0)	3(25)	8(18.60)	11(18.03)
c) No Comments	0(0)	2(16.67)	3(6.98)	5(8.20)
TOTAL	6	12	43	61
Obtained Value of Chi Square = 2.3661 at 0.05 level of significance		Degree of freedom = 2	critical value = 5.99,	Hypothesis Accepted

Source: Compiled from Questionnaire

**TABLE 4**

Satisfaction regarding Depreciation Method(s) currently in Use

Satisfied→ No. of Respondents↓	YES	NO
61	53	8
Percentage	88.89	13.11

Source: Compiled from Questionnaire

**TABLE 5**

Industry Wise Analysis of Satisfaction regarding Depreciation

Method(s) Currently in Use

Satisfied or Not	INDUSTRY					Total
	Chemicals	Electronics & Engineering	Steel	Textiles	Diversified & Others	
a) YES	15(83.33)	16(88.87)	2(50)	3(75)	17(100)	53(86.89)
b) NO	3(16.67)	2(11.11)	2(50)	1(25)	0(0)	8(13.11)
<b>TOTAL</b>	18	18	4	4	17	61
Obtained Value of Chi Square = 8.1006 at 0.05 level of significance				Degree of freedom = 4	critical value = 9.49,	Hypothesis Accepted

Source: Compiled from Questionnaire



**TABLE 6**

Sector Wise Analysis of Satisfaction regarding

Depreciation Method(s) Currently in Use

Satisfied or Not	Sector			Total
	Public (Govt. companies)	Private		
		Foreign Subsidiaries	Indian (Domestic Companies)	
a) YES	6(100)	9(75)	38(88.37)	53(86.89)
b) NO	0(0)	3(25)	5(11.63)	8(13.11)
<b>TOTAL</b>	6	12	43	61
Obtained Value of Chi Square = 1.0045 at 0.05 level of significance		Degree of freedom = 1	critical value = 3.84,	Hypothesis Accepted

Source: Compiled from Questionnaire

**TABLE 7**

Suggestion regarding Change of Depreciation Method(s)

Suggested Method→ No. of Respondents↓	Units of Production method	WDV method	No comments
8	4	2	2
Percentage	50	25	25

Source: Compiled from Questionnaire

**TABLE 8**

Industry Wise Analysis of Suggestion regarding Change of Depreciation Method(s) by Respondents

WANT TO CHANGE TO	INDUSTRIES					Total
	Chemicals	Electronics & Engineering	Steel	Textiles	Diversified & Others	
a) Units of production method	2(66.67)	0(0)	1(50)	1(100)	0(0)	4(50)
b) Written down value method	1(33.33)	1(50)	0(0)	0(0)	0(0)	2(25)
c) No comments	0(0)	1(50)	1(50)	0(0)	0(0)	2(25)
Total	3	2	2	1	0	8
Obtained Value of Chi Square = 5.000 at 0.05 level of significance				Degree of freedom = 6	critical value = 12.6,	Hypothesis Accepted

Source: Compiled from Questionnaire

**TABLE 9**

Sector Wise Analysis of Suggestion regarding Change of Depreciation Method by Respondents

WANT TO CHANGE TO	SECTOR			TOTAL
	PUBLIC (Govt. companies)	PRIVATE		
		FOREIGN SUBSIDIARIES	INDIAN (Domestic Companies)	
a) Units of production method	0(0)	2(66.67)	2(40)	4(50)
b) Written down value method	0(0)	1(33.33)	1(20)	2(25)
c) No comments	0(0)	0(0)	2(40)	2(25)
<b>TOTAL</b>	<b>0</b>	<b>3</b>	<b>5</b>	<b>8</b>
Obtained Value of Chi Square = 1.6000 at 0.05 level of significance		Degree of freedom = 2	critical value = 5.99,	Hypothesis Accepted

Source: Compiled from Questionnaire

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