EFFECT OF DEPRECIATION PRACTICES ON THE VALUE OF ASSETS OF FEDERAL OWNED TERTIARY INSTITUTIONS IN EBONYI STATE, NIGERIA

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ABSTRACT

The study evaluated the effect of depreciation practices on the value of assets of federal owned tertiary institutions (FOTI) in Ebonyi State. Specifically the study sought to examine the effect of straight line method (SLM), reducing balance method (RBM), sum-of-the-years' digits method (SOTYDM) and revaluation method (REM) of calculating depreciation. The study adopted descriptive survey design which enabled primary data to be collected with the aid of structured questionnaire in 5 point linkert scale of very highly impacted (VHI), highly impacted (HI), moderately impacted (MI), lowly impacted (LI) and very lowly impacted (VLI). The population of the study was 135 respondents drawn from four FOTI in the State. The same 135 population were used as the sample size and 135 copies of questionnaire were administered to the targeted participants but only 126 were successfully returned for analysis. Descriptive statistics was applied to determine the characteristics of the model variables. Moreover, OLS linear multiple regression model was employed to test hypotheses at 5% level of significance. Result of the regression analysis revealed that SLM, RBM, SOTYDM and REM had positive and significant effect on depreciable assets of the sampled institutions. The implication of these findings is that, provision made for depreciation by the selected tertiary institutions had significantly enhanced the assets of these institutions. The study therefore recommends that each institution should maintain their type of depreciation practices in order to sustain the enhancement of their assets values as well as complementing the assets' renewal and replacement at the expiration of their serviceable life.

KEYWORDS: Depreciation Practices, Depreciable Assets, Depreciable Amount of Assets, Financial Statements, Asset Valuaton, and Tertiary Institutions.

1. INTRODUCTION

Background to the Study

Depreciation applies to the type of long-lived assets known as fixed assets. The type of asset to be known depends on the way it is to be used not necessarily the nature of the asset. Therefore, when asset is retained by an entity in the office for production of goods and/or rendition of services, it is called fixed asset. But an asset held in stock for resale is known as current asset. Assets are further classified into tangible and intangible assets. Tangible assets are assets that can be seen and touched such as land and buildings, machinery, motor vehicles, furniture and fittings, computer among others whereas intangible assets are assets that cannot be seen and touched like goodwill, patent rights, trademarks and fictitious assets such as preliminary expenses. Depreciation refers to depreciation of tangible assets while intangible assets have other names for depreciation. Depreciation of intangible assets as mentioned above is referred to as amortization while depreciation of wasteful assets like coal mine is called depletion. The main reasons for provision of depreciation charges in any organization are: (a) to enable the accounting records show the true financial position of the business, (b) to accumulate funds for the replacement of assets when their serviceable life span comes to an end and (c) not to overstate or understate the value of assets in the balance sheet of the business. Overstated value decreases profit while understated value increases profit in the Profit and Loss Account and none of them is healthy to the business. The overall effect gives fictitious value on the balance sheet of the business.

Measuring the effects of depreciation practices on tertiary institutions assets is a central task both in accounting practice and theory (Maughan, 2020). The management of tertiary institutions need the information of depreciation for their decision making both in the short and in the long-run administration and therefore must take steps to ensure the optimal management of the institutions. However, using one or another depreciation accounting method, an additional deduction of the income tax is possible, thus increasing the organizational development of tertiary institutions assets in Ebonyi State. In depreciation accounting practices, the methods used include linear depreciation, regressive depreciation and accelerated depreciation. The bigger the expense input with the depreciation, the bigger the net profit-situation found when a faster accounting depreciation policy is used (Zwingina, Adegun and Kayadi, 2022).

In other words, the effect of the depreciation accounting practices appears in choosing one of the depreciation methods to be used. In accounting, depreciation practices refer to two aspects of the same concept: The decrease in value of assets (fair value depreciation) and the allocation of the cost of assets to periods in which the assets are used (depreciation with the matching principle); a method of re-allocating the cost of a tangible asset (fixed asset) over its useful life span of it

being in motion/operation. Businesses depreciate long-term assets for both tax and accounting purposes. The former affects the balance sheet of a business or entity, and the latter affects the net income that they report. Generally, the cost is allocated as depreciation expense among the periods in which the asset is expected to be used. This expense is recognized by businesses for financial reporting and tax purposes (Mert and Dil, 2016). Methods of computing depreciation, and the periods over which assets are depreciated may vary between asset types within the same business and may vary for tax purposes. These may be specified by law or accounting standards, which may vary by country (Adisa and Nkem, 2011). There are several standard methods of computing depreciation expense, including fixed installment (Straight line), diminishing (Reducing) balance, sum-of-the-years' digits and the revaluation methods among others.

Depreciation expense generally begins when the asset is placed in service. For example, a depreciation expense of one thousand naira (₦1,000) per year for five years may be recognized for an asset costing five thousand naira (₦5,000). In determining the profits (net income) from an activity of these small and medium scale enterprises (SMEs), the receipts from the activity must be reduced by appropriate costs. One such cost is the cost of assets used but not immediately consumed in the activity. Such cost so allocated in a given period is equal to the reduction in the value placed on the asset, which is initially equal to the amount paid for the asset and subsequently may or may not be related to the amount expected to be received upon its disposal. Depreciation is any method of allocating such net cost to those periods in which the organization is expected to benefit from use of the asset. The asset is referred to as a depreciable asset. Depreciation practice is technically a method of allocation, not valuation, even though it determines the value placed on the asset in the balance sheet (Nwali, 2009).

Any business or income producing activity using tangible assets may incur costs related to those assets. If an asset is expected to produce a benefit in future periods, some of these costs must be deferred rather than treated as a current expense. The business then records depreciation expense in its financial reporting as the current period's allocation of such costs. This is usually done in a rational and systematic manner. Generally, this involves four criteria which include cost of the asset, expected salvage value also known as residual value of the assets, estimated useful life of the asset, and a method of apportioning the cost over such life. According to Akonye (2013), accounting depreciation acts on the organization profitability within the meaning of the operating profit/loss and implicitly of the net earnings value and the fiscal depreciation cause the reduction of the income tax to be paid. The only one which influences the self-funding capacity is the fiscal depreciation, as it leads to the reduction of the income tax to be paid. The accounting depreciation does not influence the self-funding capacity, which may be seen in the formulas that underlie the self-funding capacity of an organization. Therefore in the deductive method, the depreciation is not taken into account (the income tax that is influenced by the fiscal depreciation is taken into account) and in the additional method, even if the accounting depreciation is added

to the net earnings, it was initially deducted from the gross operating surplus and therefore, the net earnings were reduced with its value.

Statement of the Problem

Depreciation and profitability have a complex, intricate and confusing relationship in the field of accounting. As a result, depreciation accounting practices have been over-used, over-stressed, and over-worked by the accountants and professional valuers. International Accounting Standards (IAS 9), qualifies assets for depreciation when assets are used for more than one accounting period, *that is*, assets shielded by an enterprise for production or service, and has economic useful life. Whereas, under Standard Statement of Accounting Practice (SSAP), depreciation is viewed as wearing out, consumption or other loss of value of fixed asset, whether arising from use (wear and tear), effluxion (that is, passage of time), obsolescence, superfluity, natural factors or through technology and market changes (Fawe,1978). Complexity may arise when it is viewed as a fall in price, physical deterioration, allocation of cost, fall in value, valuation technique and asset replacement. Intricate and confusion are inevitable when accountants employ various methods of providing for depreciation accounting practices on the same or similar assets of different life span. The consequential effect is either to undermine or overstate the reported profit or distributable profit in the hands of the stakeholders, hence the absurdity of the financial reports. Prior studies such as Mert and Dil (2016); Tanui (2016); Satyanarayana, Sidhu and Naresh (2015); Sunildutt (2013) and, Adisa and Nkem (2011) amongst others have investigated on the relationship between depreciation practices and depreciable assets of organizations over time. However, the problem with these studies is that they were carried outside Ebonyi State which is our case reference. Whence, their findings cannot be used effectively for the explanation of depreciation practices on depreciable assets of federal owned tertiary institutions in Ebonyi State. Therefore, there is need for another study that will specifically evaluate the empirical relationship between depreciation practices and depreciable assets' value of federal owned tertiary institutions in Ebonyi State. This unequivocally justifies the imperative of this study. For the study to be effectively researched on there are various methods of depreciation practices in providing for depreciation in accounting such as Straight Line method or Fixed Instalment method; Diminishing or Reducing Balance method; Revaluation method; Sum-of-the-Years' Digits method; Annuity method; Sinking fund method; Depletion unit or Production unit method; Machine Hour method; and Machine Output method. The researcher decided to use four (4) methods namely: the Straight Light method, Reducing Balance method, Sun-of-the-years' digits method and Revaluation method out of the nine (9) methods listed above because the four (4) are the most common methods used in providing for depreciation.

Objectives of the Study

The Broad objective of this study is to assess the effect of depreciation practices on the value of assets of federal owned tertiary institutions in Ebonyi State. The following are the specific objectives of this study:

1. To evaluate the effect of straight line method of calculating depreciation on the value of assets of federal owned tertiary institutions in Ebonyi State.
2. To ascertain the effect of reducing balance method of calculating depreciation on the value of assets of federal owned tertiary institutions in Ebonyi State.
3. To examine the effect of sum-of-the-years'-digits method of calculating depreciation on the value of assets of federal owned tertiary institutions in Ebonyi State.
4. To determine the effect of revaluation method of calculating depreciation on the value of assets of federal owned tertiary institutions in Ebonyi State.

Research Questions

1. To what extent does straight line method of calculating depreciation impact on the value of assets of federal owned tertiary institutions in Ebonyi State?
2. To what extent does reducing balance method of calculating depreciation impact on the value of assets of federal owned tertiary institutions in Ebonyi State?
3. To what extent does sum-of-the-years'-digits method of calculating depreciation impact on the value of assets of federal owned tertiary institutions in Ebonyi State?
4. To what extent does revaluation method of calculating depreciation impact on the value of assets of federal owned tertiary institutions in Ebonyi State?

Research Hypotheses

H_{O1}: There is no significant impact of straight line method of calculating depreciation on the value of assets of federal owned tertiary institutions in Ebonyi State.

H_{O2}: Reducing balance method of calculating depreciation has no significant impact on the value of assets of federal owned tertiary institutions in Ebonyi State.

H_{O3}: There is no significant impact of sum-of-the-years'-digits method of calculating depreciation on the value of assets of federal owned tertiary institutions in Ebonyi State.

H_{O4}: Revaluation method of calculating depreciation has no significant impact on the value of assets of Federal Owned Tertiary Institutions in Ebonyi State.

Significance of the Study

Depreciation accounting practices have developmental impacts on tertiary institutions' assets in Ebonyi State for essence of assets replacement at the end of their life span duration.

This empirical investigation of the effects of depreciation practices on the value of tertiary institutions' assets is therefore a significant contribution to existing literature.

Furthermore, the study would provide evidence on the extent to which Ebonyi State federal owned tertiary institutions are accommodating accounting in readiness for gaining strategic competitive advantages in their businesses.

The study would also provide uniqueness of small and medium scale businesses for careful consideration in the design of accounting systems..

The outcome of this study will be useful for business managers and stakeholders in accounting sector on ways by which various depreciation accounting practices on assets can influence the profitability of small and medium scale businesses.

Scope of the Study

This study covered Federal Tertiary Institutions in Ebonyi State. The institutions understudied are the Alex-Ekwueme Federal University, Ndufu-Alike, Ikwo, David Umahi Federal University of Health Sciences, Uburu; Akanu-Ibiam Federal Polytechnic, Unwana and Federal College of Agriculture, Ishiagu. This research studied the depreciation practices in the four (4) tertiary institutions aforementioned above to assess the effects of depreciation practiced on the value of depreciable assets of the institutions. On pilot survey interaction, the researcher found out that three (3) tertiary institutions namely; Alex-Ekwueme Federal University, Ndufu-Alike, Ikwo; Akanu-Ibiam Federal Polytechnic, Unwana, Afikpo and Federal College of Agriculture, Ishiagu practice straight line method of calculating depreciation on the values of their assets while David Umahi Federal University of Health Sciences, Uburu adopts revaluation method for starting up on her accounting operation.

Limitations of the Study

The researcher was confronted with civil service bureaucratic bottleneck**.** Some respondents of the study indulged in giving information/release of documents for sighting when pilot survey system was conducted because of civil service oath of secrecy as well as management policy of not divulging official information and/or releasing official documents to outsiders. The use of questionnaire as instrument for data collection if not handled professionally can impair the generalization of the findings. Notwithstanding the above constraints, the researcher surmounted the limitations by constant visit to the Bursars and respondents of the institutions which familiarized the writer with them for co-operation. The author then worked and operated within the limit of the respondents' information for effective and efficient results as well as devoting enough time for the analysis of data instrument.

METHODOLOGY

Research Design

The study adopted descriptive survey research design. According to Nworgu (2015), a descriptive survey research design is the one which aims at collecting data and describing them in a systematic manner the characteristics, features or facts about a given population. The researcher considers this design appropriate for this study since data were collected from Accountants, Internal Auditors, Executive Officers (Accounts), Executive Officers (Internal Audit) and, Stores and supply Officers in Stores and Supplies Unit in Accounts/Bursary Department in the tertiary institutions regarding the effects of depreciation practices on the value of depreciable assets in FOTI of Ebonyi State, Nigeria.

Sources of Data

Primary source of data was used through questionnaire and personal interviews on the population of the study as well as pilot survey system.

Area of the Study

The study was carried out in federal owned tertiary institutions in Ebonyi State, Nigeria, namely: Alex-Ekwueme Federal University, Ndufu-Alike, Ikwo uses Straight Line Method; David Umahi Federal University of Health Sciences, Uburu adopts Revaluation Method; Akanu-Ibiam Federal Polytechnic, Unwana, Afikpo practices Straight Line Method and Federal College of Agriculture, Ishiagu also practices Straight Line Method.

Population of the Study

The population for this study consisted of Accountants, Executive Officers (Accounts), Internal Auditors, Executive Officers (Internal Audit), Stores and Supply Officers in Accounts and Bursary Departments of four (4) Federal Owned Tertiary Institutions in Ebonyi State. The population was made up of 135 personnel of the schools. The table 1 below depicts a random selection of the personnel population of the study

Table 1: Analysis of Personnel population of the Study

Institutions	Accountants	Executive Officers (Accounts)	Internal Auditors	Executive Officers (Internal Audit)	Stores and Supply Officers	TOTAL
Alex-Ekwueme Federal University, Ndufu-Alike, Ikwo.	9 (6.7%)	10 (7.4%)	3 (2.2%)	7 (5.2%)	4 (3.0%)	**33 (24.4%)**
David Umahi Federal University of Health Sciences, Uburu.	3 (2.2%)	4 (3.0%)	2 (1.5%)	4 (3.0%)	3 (2.2%)	**16 (11.9%)**
Akanu-Ibiam Federal Polytechnic, Unwana, Afikpo.	11 (8.1%)	13 (9.6%)	5 (3.7%)	9 (6.6%)	8 (5.9%)	**46 (34.1%)**
Federal College of Agriculture, Ishiagu	10 (7.4%)	11 (8.1%)	5 (3.7%)	8 (5.9%)	6 (4.4%)	**40 (29.6%)**
TOTAL	**33 (24.4%)**	**38 (28.1%)**	**15 (11.1%)**	**28 (20.7%)**	**21 (15.5%)**	**135 (100%)**

Source: Nominal Rolls of the Institutions, 2022.

Sample and Sampling Techniques

The researcher decided to make use of all the population sampled from the institutions listed in table 1 above. Hence, the sample size of the study was therefore 135. Consequently, the study used 126 (93%) copies of questionnaire while 9 (7%) copies were defective of one error or the other and so they were rejected.

Model Specification Analysis

Ordinary least square (OLS) multiple linear regression model was used in this study to determine the relationship between the independent and dependent variables. The multiple regression model is expressed as shown below:

$$Y= \beta_0+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4+\mu_t \quad (4)$$

The aforementioned model was modified to suit the study as shown below:

$$DEA = f(DEP) \quad (5)$$

Where; DEA = Depreciable Assets (Dependent variable) and

DEP = Depreciation Practices (Independent variable).

$$\text{Whilst, } DEA = \beta_0 + \beta_1SLM + \beta_2RBM + \beta_3SOTYDM + \beta_4REM + \mu_t \quad (6)$$

Thus, DEA = Depreciable Assets,

SLM = Straight Line Method,

RBM = Reducing Balance Method,

SOTYDM = Sum-Of-The-Years' Digits Method,

REM = Revaluation Method,

β_O = Constant parameter,

$\beta 1$ - $\beta 4$ = Beta Coefficient and

μ_t = Stochastic error or Error term.

Instruments for Data Collection

Instrument for data collection was a set of questionnaire which was divided into two sections. The first section was on demographic attributes of the respondents while the second section was aimed at finding out relevant information on the effect of depreciation practices on depreciable assets of FOTI in Ebonyi State. The questionnaire were structured in a close-ended form using a 5-point linkert scale rating of Very Highly Impacted (VHI), Highly Impacted (HI), Moderately Impacted (MI), Lowly Impacted (LI) and Very Lowly Impacted (VLI).

Validation of the Instruments

To ascertain the face validity of the instrument, the researcher submitted the research instruments to three experts including the supervisor to make suggestions as they deemed appropriate. Their suggestions were incorporated in producing the final version of the instrument.

Reliability of the Instruments

To establish the internal consistency of the instrument, the researcher conducted a pilot test by administering 20 copies of the instrument to 20 personnel from tertiary institution in Enugu State who were not part of the population of the study. Cronbach Alpha using Statistical Package for Social Sciences (SPSS) version 20.0, 2023 yielded coefficient values of 0.81, 0.80, 0.91, 0.84 and 0.87 for the five clusters and an overall reliability value of 0.85 (i.e. 85%) was obtained. This high coefficient value indicates that the instrument is reliable for the study as recommended by Uzoagulu (2012), that a reliability coefficient of 0.70 and above is acceptable for a test of internal consistency for a research instrument.

Method of Data Analysis

The data collected from the respondents were analyzed using necessary statistical instruments such as descriptive statistics. Multiple regression was used to test the formulated hypotheses at 0.05 (5%) of significance. The study was guided by the following decision rules: Accept the alternate hypothesis and reject the null hypothesis if the probability is less than the chosen level of significance (0.05). However, accept the null hypothesis if the probability value (p-value) is greater than 0.05 level of error coefficient. That is, symbolically, it is represented thus:

p-value $<$ 0.05 (5%) = Accept H_1 and Reject H_0 _____ (7)

p-value $\geq$ 0.05 (5%) = Accept H_0 and Reject H_I _____ (8)

IV. RESULTS

This section presents the analysis of data collected from the sampled federal institutions in Ebonyi State. The study presents the descriptive tests in order to determine the characteristics of the data collected from the participants. Other tests presented in the study include reliability test and multiple regression results. Test of research hypothesis were based on the conventional probability (p-value) associated with regression outcome of the research baseline model. Therefore, the data that were gathered with the aid of relevant instruments and methods were analyzed and interpreted with the view to arriving at empirical solution to the identified problem.

Presentation of Data

Table 2: Analysis of Distribution of Questionnaire

S/N	Sampled Institutions	Distributed Questionnaire	Percentage (%)	Questionnaire Returned/ valid for use	Percentage (%)	Questionnaire withheld	Percentage (%)
1.	Alex-Ekwueme Federal University, Ndufu-Alike, Ikwo	33	24.4	31	23.0	2	1.5
2.	David Umahi Federal University of Health Sciences, Uburu.	16	11.9	15	11.1	1	0.74
3.	Akanu- Federal Polytechnic, Unwana Afikpo	46	34.1	42	31.1	4	3.0
4.	Federal College of Agriculture, Ishiagu	40	29.6	38	28.1	2	1.5
	Total	**135**	**100**	**126**	**93.3**	**9**	**6.7**

Source: Researcher's Field Study, 2023

Table 2 above showed that 135 copies of questionnaire were distributed to the targeted respondents in the 4 selected Federal Tertiary Institutions in Ebonyi State so as to determined the effect of depreciation practices on the value of assets of those sampled institutions. Out of the 135 copies of questionnaire distributed, 126 were successfully returned and validly used. These 126 valid copies represent 93.3 percent of the participants; while 9 copies were not returned which represents 6.7 percent.

Demographic Profile of Respondents

Table 3 : Analysis of Educational Qualification of the Population

Education Qualification	OND/Diploma Certificate	HND/PGD	B,Sc/BA	M.Sc/MBA	Ph.D	Total	Percentage (%)
Alex-Ekwueme Federal University, Ndufu-Alike, Ikwo.							
Accountants	0	0	6	2	1	**9**	6.7
E.O (Accts)	6	4	0	0	0	**10**	7.4
Internal Auditors	0	0	2	1	0	**3**	2.2
E.O (I.Audit)	3	3	1	0	0	**7**	5.1
Stores & Supply Offr.	o	1	2	1	0	**4**	3.0
TOTAL(A)	**9**	**8**	**11**	**4**	**1**	**33**	24.4
David Umahi Federal University of Health Sciences, Uburu							
Accountants	0	0	2	1	0	**3**	2.2
E.O (Accts)	2	2	0	0	0	**4**	3.0
Internal Auditors	0	0	2	0	0	**2**	1.4
E.O (I.Audit)	1	3	0	0	0	**4**	3.0
Stores & Supply Offrs.	0	0	2	1	0	**3**	2.2
TOTAL(B)	**3**	**5**	**6**	**2**	**0**	**16**	11.9
Akanu- Federal Polytechnic, Unwana Afikpo.							
Accountants	0	0	6	3	2	**11**	8.1
E.O (Accts)	0	7	5	1	0	**13**	9.6
Internal Auditors	0	0	3	2	0	**5**	3.7
E.O (I.Audit)	0	4	3	2	0	**9**	6.7
Stores & Supply Offrs.	0	0	5	3	0	**8**	5.9
TOTAL(C)	**0**	**11**	**22**	**11**	**2**	**46**	34.1
Federal College of Agriculture, Ishiagu.							
Accountants	0	3	4	2	1	**10**	7.4
E.O (Accts)	5	4	2	0	0	**11**	8.1
Internal Auditors	0	1	3	1	0	**5**	3.7
E.O (I.Audit)	4	3	0	1	0	**8**	5.9
Stores & Supply Offrs.	0	1	4	1	0	**6**	4.4
TOTAL(D)	**9**	**12**	**13**	**5**	**1**	**40**	**29.6**
GROUND TOTAL (A-D)	**21**	**36**	**52**	**22**	**4**	**135**	**100**
Percentage (%)	15.6	26.7	38.5	16.3	3.0	100	

Source: Researcher's Field Survey, 2023.

The educational background of the respondents from table 3 shows that the majority of them are B.Sc./BA holders (52) which represent 38.5% of the participants while HND/PGD holders (36)

are following next, representing 26.7%. In addition, M.Sc./MBA holders (22) scored 16.3% while OND/Diploma holders (21) represent 15.6%. Similarly, only four (4) of the respondents hold Ph.D Degree certificates with the score of 3.0% amongst the overall studied population of 135 from the four (4) selected tertiary institutions in the State.

Descriptive Test

Table 4: Descriptive Statistics

	N Statistic	Minimum Statistics	Maximum Statistics	Mean Statistics	Std. Deviation Statistics	Skewness Statistics	Std Error	Kurtosis Statistics	Std. Error
Sum-SLM	126	1.65	3.0	2.8252	0.6185	0.132	0.112	0.317	0.441
Sum-RBM	126	1.70	3.0	2.9985	0.5822	0.322	0.101	0.344	0.441
Sum-SOTYDM	126	1.60	4.0	2.5343	0.3014	0.401	0.112	0.308	0.441
Sum-REM	126	1.60	3.0	3.2984	0.7582	0.415	0.112	0.317	0.441
Sum-Asset	126	1.75	4.0	3.9982	0.8289	0.415	0.112	0.344	0.441
Valid N (Listwise)	126								

Source: Extracted From SPSS (2023), Version 20.0

Table 4 provided the number of responses, minimums, maximums, means, standard deviations, skewness statistics and standard errors, and kurtosis statistics and standard errors for the variables of interest. The mean is the average value of the series which is determined by dividing the total value of the series by the number of observations. Standard deviation on the other hand, is a measure of spread or changes in a series of data. Skewness is a measure of how responses or data were distributed, while Kurtosis is the measure of how responses or data cluster around a central point for a standard distribution. The table also showed that the standard deviation values are low. The implication of this is that the data collected did not deviate much from the reality. This is supported by the standard error, all of which were lower than one (1). Given that the smaller the standard error, the more representative the sample size will be of the overall population. It is understood that the data represent the population with a high degree of accuracy.

Table 5: Reliability and Consistency Analysis

Construct/Variable	No. of Item	Cronbach's Alpha
Sum-SLM	5	0.855

Sum-RBM	5	0.780
Sum-SOTYDM	5	0.862
Sum-REM	5	0.880
Sum-Asset	**5**	**0.805**

Source: Extracted From SPSS (2023), Version 20.0

The output shows that all the variables (both dependent and independent variables) are highly reliable since the overall Cronbach's alpha values are respectively Straight Line method (SLM) = 0.855; Reducing balance method (RBM) = 0.780; Sum-of-the-years' digits method (SOTYDM) = 0.862; Revaluation Method (REM) 0.880; and Asset = 0.805. The reflective pointers clearly show that the research instrument does not only exhibit good reliability behavior but also indicates internal consistency with all the reflective indicators.

Table 6: OLS Multiple Regression Results

Variables	**Std. Error**	**Beta Coefficients**	**T. Stat.**	**Prob.**
Constant	0.298	-	10.306	0.0289
Sum-SLM	0.064	0.2440	2.558	0.0250
Sum-RBM	0.088	0.2380	2.704	0.0325
Sum-SOTYDM	0.046	0.2118	3.993	0.0115
Sum-REM	0.042	0.2210	2.819	0.0149
R-Square				0.518
Adjusted R-Square				0.531
Durbin Waston				1.688

Source: SPSS Statistics, 2023, Version 20.0

The decision rule is anchored on the conventional probability values (P-value) associated with the regression outcome. The decision rule is stated thus:

Decision Rule

Decision rule 1: Accept the alternative hypothesis and reject the null hypothesis if the p-value is less than the chosen level of significance (5%).
Decision rule 2: Accept the null hypothesis and reject alternative hypothesis if the p-value is greater than the chosen level of significance (5%).

The regression results in table 6 showed that the p-values of Straight Line method, Reducing Balance method, Sum-of-the-Years' Digits method and Revaluation method were 0.0250, 0.0325, 0.0115 and 0.0149 respectively. Based on these results and guided by the decisions rules earlier stated, the researcher rejected the null hypothesis and concluded that Straight Line method, Reducing Balance method, Sum-of-the-Years' Digits method and Revaluation method

had significant influence on assets of the sampled tertiary institutions. The implication of these results is that the provisions made by these different methods of calculating depreciation have improved the value of their assets against depreciation in due time of renewal and replacement/change. R-square = 0.518, implying that about 51% of the changes in assets value is attributed to changes in Straight Line method, Reducing Balance method, Sum-of-the-Years' Digits method and Revaluation method, while 49% is caused by other factors not captured as variables in the model of the study but which are capable of affecting assets of the sampled tertiary institutions in Ebonyi State. Durbin statistical Waston value is 1.688, which means that there is no presence of autocorrelation as its value is approximately two percent (2%).

V. Discussion of Findings

1. Effect of Straight Line Method (SLM) of Calculating Depreciation on the Value of Assets of Federal Owned Tertiary Institutions in Ebonyi State.

The result presented in table 6 clearly showed that the p-value with respect to SLM of calculating depreciation of the sampled institutions was 0.0250. Based on the depreciation rules guiding the study, the p-value is within the acceptable significant level of 0.05. Hence, the implication of this decision by the researcher is that SLM of calculating depreciation had positive and significant effect on the value of assets of the selected tertiary institutions, that is, alternate hypothesis was accepted**.** This result is in conformity with the study of Adisa and Nkem (2011) who concluded that companies (here represent federal owned tertiary institutions) would be declaring more profits and maintaining their assets if suitable methods of depreciation on assets are properly applied.

2. Effect of Reducing Balance Method (RBM) of Calculating Depreciation on the Value of Assets of Federal Owned Tertiary Institutions in Ebonyi State.

The outcome of hypothesis two (2) as presented in table 6 indicated that the p-value of RBM was 0.0325. Based on this result in line with the guiding decision rules, the researcher rejected the null hypothesis and concluded that RBM had positive and significant effect on the value of depreciable assets of the sampled tertiary institutions in Ebonyi State. The result of this study however disagrees with Mert and Dil (2016) who evaluated the effects of depreciation methods on performance measurement methods: A case of energy sector, Turkey and found that different approaches and depreciation methods being used enhanced the success and value of companies while being a guide. Opposite to their findings, this study found out that multiple depreciation practices do not enhance success and have no added value to federal owned tertiary institutions assets.

3. Effect of Sum-of-the-Years' Digits Method (SOTYDM) of Calculating Depreciation on the Value of Assets of Federal Owned Tertiary Institutions in Ebonyi State.

The result of the regression analysis in table 6 showed that the p-value of SOTYDM of calculating depreciation was 0. 0115. In line with guiding decision rules, the p-value (0.0115) is less than 0.05 level of significance. Besides, the researcher rejected the null hypothesis and then concluded that SOTYDM had positive and significant effect on the value of depreciable assets of the selected tertiary institutions in the State. The result of this study did not aligned with the study of Sunildutt (2013) who investigated the accounting treatment of property, plant and equipment (PPE) in public higher education institutions in South Africa and found that some institutions applied different useful life for the same asset classes and then had variation in recording their values as well as depreciating PPE at different rates. But coincidentally, the recommendation was in line with the finding of this research work which stated thus: given that the activities or business of educational institutions are similar in nature, public higher educational institutions need to apply consistent recording of assets in terms of their useful life as the useful life of an asset has direct correlation with the values of asset for determination of surplus or deficit operation of an institution.

4. Effect of Revaluation Method (REM) of Calculating Depreciation on the Value of Assets of Federal Owned Tertiary Institutions in Ebonyi State

The study discovered that the probability value (p-value) of REM was 0.0149. Based on this result, the writer concludes that REM of calculating depreciation of the institutions had positive and significant effect on the value of their depreciable assets. The implication of this study is that REM has contributed in the enhancement of depreciable assets of the selected tertiary institutions. Since fixed assets revaluation as one of the depreciation practices of accounting procedures helps any entity to replace assets at the end of their life span and also not to understate or overstate profit and loss figures, then the finding of Okoro and Charles (2019) was not in tandem with what this study found. They found that fixed assets revaluation have no significant effect on the profitability of Nigerian commercial banks.

Implications of the Study

The study evaluated the effect of depreciation practices on the value of assets of federal owned tertiary institutions in Ebonyi State. The results of the multiple regression analysis indicated that all the four (4) methods Straight Line method, Reducing Balance method, Sum-of-the-Years' Digits method and Revaluation method of providing for depreciation of assets of the selected tertiary institutions had positive and significant influence on the value of assets of those institutions. The implication of these findings is that the provision for depreciation in all the decomposed independent variables above had significantly contributed in the enhancement of depreciable assets of the selected federal owned tertiary institutions in Ebonyi State of Nigeria.

VI. SUMMARY OF FINDINDS, CONCLUSION AND RECOMMENDATIONS

Summary of Findings

1. The study used Straight line method of providing for depreciation with p-value of 0.0250 less than 0.05 and found that it had positive and significant effect on the value of assets of federal owned tertiary institutions in Ebonyi State.
2. Reducing balance method of calculating depreciation with p-value of 0.0325 had positive and significant effect on the value of assets of federal owned tertiary institutions in Ebonyi State.
3. The study discovered that sum-of-the-years'-digits method with p-value of 0.0115 had positive and significant effect on the value of assets of federal owned tertiary institutions in Ebonyi State.
4. The study found that revaluation method of calculating depreciation with p-value of 0.0149 had positive and significant effect on the value of assets of federal owned tertiary institutions in Ebonyi State.

Conclusion

In line with the outcome of the regression analysis, the study concludes that depreciation practices on the value of assets in all the four (4) objectives had positively and significantly influenced the assets' values of the selected tertiary institutions in the State. Besides, the depreciation provision made by accounting depreciation practices give enablement of enhanced contributions of renewal and replacement of assets put in service at their retirement of their serviceable life. Holistically, from this inferential statistical study, the researcher urges all the federal owned tertiary institutions in Ebonyi State to keep tempo of their depreciation practices since its practices enhance the values of their assets.

RECOMMENDATIONS

1. Straight line method of calculating depreciation which is positively significant should be adopted by federal owned tertiary institutions that practice this type of depreciation method for maximum result and efficiency in the operation of their assets.
2. Sustainable measures should be put in place since reducing balance method of calculating depreciation in federal owned tertiary institutions contributes to the enhancement of assets put in use in the management of their activities.
3. The contributions of sum-of-the-years' digits method aid in renewal and replacement of depreciable assets at the retirement of their estimated serviceable life and so should be maintained in their operation.
4. Revaluation method gives fair values of assets in the stock and subsequently improves the values of acquired assets of federal institutions in determining depreciation charges, therefore, federal institutions in Nigeria should keep tempo of the usage.

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