Effect of Assets Revaluation Practices On Earnings Performance of Quoted Manufacturing Companies in Nigeria

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ABSTRACT
This study investigates the implications of upward fixed asset revaluation behaviour of Nigerian listed manufacturing companies on the future earnings performance of selected listed manufacturing companies, over the period 2010 to 2018. Purposive sampling technique was adopted to select ten (10) companies were included for analysis, with data collected from their annual reports. The analytical tool used descriptive statistic and regression models. The result showed that Fixed Asset Revaluations significantly reduced the current earnings performance of firms (by 28.7 percent), and significantly increased future earnings performance (by 31.1 percent). Overall, the findings suggest that upward revaluation has negative effect on current earnings performance, but has positive impact on future earnings performance among quoted firms in the Manufacturing Industry of Nigeria. This study provides evidence to support the Positive Accounting Theory (PAT). It was recommended that management of manufacturing firms should adopt fixed assets revaluation method that are in line with the relevant statute and accounting standard, and revalue assets if it the future benefit on earnings outweighs the current earnings depletion.

KEY WORDS: Fixed Assets Intensity, Fixed Assets Revaluation; Current Earnings Performance, Future Earnings Performance, Returns on Assets

Date of Submission: 25-11-2020
Date of Acceptance: 09-12-2020

I. INTRODUCTION
Managers have the discretionary power whether or not to report a revaluation of assets. Subject to the true and fair view requirements of the financial statements, the amount of revaluation recognised in the accounts is also a choice variable. Management can freely choose to report the company’s property, plant and equipment either on historical cost basis or on a revalued amount. The historical cost model is relatively more reliable while revaluation model is perceived to be more relevant for making decisions since the revalued amount is based on the recent fair value. However, asset revaluation has some cost implications. Asset revaluation usually involves costs of obtaining the revalued amount. The major costs that associate with the revaluation of assets are valuation costs for contracting independent appraisers and associated audit fees due to the increase in complexity in verifying subjective valuation. Thus, it is expected that management will revalue assets only if the benefits exceed these additional costs.

Asset revaluation significantly affects a company’s financial statement. In the statement of financial position, upward revaluation increases the reported amount of assets and creates revaluation surplus which is reported in the equity section. It would subsequently decrease reported profits in the income statement due to the increase in depreciation expenses as well as the decrease in the gain on the sale of assets that are revalued. Consequently, asset revaluation improves the debt equity ratios but lowers the efficiency and profitability ratios, such as Return on Assets (ROA), and Return on Equity (ROE).

Although the revaluation would lead to unfavourable reported profitable performance, firms still apply this accounting procedure. Thus, it is interesting to study what motivates management to revalue assets, and whether there exist future operating performance benefits of upward revaluation. According to the positive accounting theory, management selects an accounting procedure in order to reduce its contracting costs. In case of asset revaluation, contracting costs can be decreased by reducing the risk of debt covenant violation, signaling important information in order to mitigate the effect of information asymmetry, and reducing political pressures. These have promising implications on the financial performance of firms.

Despite these factors associated with the adoption of assets revaluation, there is a dearth of research empirically exploring the influence of firms’ revaluation decision on the earnings performance of these firms. A few works contend that upward revaluations could be a costly accounting choice because they have the potential to reduce future earnings, return on total assets and return on shareholders’ equity. However, the implications of
fixed assets revaluation on future earnings performance of firms has not been comprehensively and empirically investigated, despite suggestions from prior works. Hence, the paper seeks to address this gap.

Objectives of the study:

i. To examine the effect of upward asset revaluation decision on current earnings performance of quoted manufacturing firms in Nigeria

ii. To examine the impact of upward asset revaluation decision on future earnings performance of quoted manufacturing firms in Nigeria

II. THEORY AND HYPOTHESES DEVELOPMENT

2.1 Fixed Asset Revaluation Factors

Tangible assets are expected to be used for more than a year in the production or supply of business goods and services, for lease to third parties or for administrative purposes (International Accounting Standard Board (IASB), 2005). Because of their contribution to generating income, tangible assets are depreciated over their useful life. The revised International Financial Accounting Standard (IFAS) No. 16 for Fixed Assets became mandatory as of January 1, 2008, and was adopted from IAS No. 16 for Property, Plant and Equipment for owner-occupied purposes (IASB, 2005). IFAS No. 16 requires companies to apply a cost model to record any new asset purchased, but for subsequent transactions this accounting standard allows companies to adopt either a cost or a revaluation model for fixed assets. When the revaluation model is used, companies must provide relevant information on its property, plant and equipment value to the users of financial statements using fair market values. As a consequence, companies have to appraise the value of their fixed assets regularly. The following factors determine the upward revaluation of assets.

a. Contracting Factors (Financial Leverage)

Whittred and Chan (1992) and Smith (2003) explained that any restrictions on a firm’s debts, limits its investment opportunities. Highly profitable projects may also limit a firm’s borrowing capacity more than the past; therefore, the management tends to choose accounting methods that can help the company to reduce the costs of the debt contract. Since the revaluation of fixed assets increases both the book value of total assets and revaluation surplus income balance, it improves the ratio of debt to asset or debt to income of a company’s shareholders and considering the strengthening of the balance sheet, the lenders tend to reduce the debt limitations and interest costs, therefore companies also tend to revalue their assets when their debt to asset ratio is high.

Based on the hypothesis of debt contracting costs of positive accounting theory, firms close to breach of debt agreements such as having high leverage ratios would be more likely to choose accounting methods that could shun the company from credit risk for breach of debt agreement. Revaluation can be used to loosen debt agreement constraints such as possible fines. Asset revaluation can increase the value of the equity that decreases the company’s leverage ratio. Low leverage ratio will increase creditor trust making it easier to obtain a capital loan. Based on this, firms with high leverage will be more likely to choose revaluation methods on their fixed assets (Aziz & Yuyetta, 2017; Wali, 2015).

b. Political Factors (Firm size)

It is believed that a firm size is an important factor in deciding the revaluation of assets. Previous studies have shown that government controls on prices are more focused on large firms rather than small ones, because large firms have more freedom in applying the regulations and are more willing to play a leading role in determining the prices (Lin and Peasnell, 2000). Unions and associations pay more attention to big firms and demand more benefits for them and firms tend to avoid reporting the excessive profits in order to reduce the impact of political variables. The revaluation of assets can be an effective way to reduce the reported earnings through increased depreciation expenses. It is therefore expected that the government and unions reduce the political pressures on larger companies (Lin and Peasnell, 2000) and there would be a positive relationship between the size of a company and the decision of its management to re-evaluate the assets.

It was believed that a firm’s size was an important factor related to the revaluation decision. Previous studies suggested that governmental price controls have focused more heavily on large firms than on small ones because large firms are perceived to have greater freedom from regulations, and are more likely to take price leadership roles (Lin and Peasnell, 2000a). Unions may also pay more attention to large firms and demand higher salaries from these firms. In order to reduce adverse political influence, firms tend to avoid reporting excessively high profits. An upward asset revaluation can be an effective way to reduce reported profit through increased depreciation charges on the asset revaluation increments, and it is therefore expected to mitigate the political pressures faced by larger firms from government or unions (Lin and Peasnell, 2000a).
c. Information Asymmetry Factor (Fixed Asset Intensity)

Since the revaluation of assets is a costly process and imposes a heavy financial burden to the company, performing it would only be affordable for companies that invest heavily on their fixed assets (Brown, P., Izan, H. Y. & Loh, A. L. (2002); Whittred & Chan, 1992). Revaluation of assets would be profitable for a company when the ratio of its fixed assets to its total assets is significant. The production capability increases the company’s value and provides a greater potential to increase the assets of the company (Lin and Peasnell, 2000). Studies conducted by Lin (2000) also confirmed the positive relationship between the decision to perform the revaluation of assets and an increase in fixed assets.

Since the revaluation process is costly, a large investment in assets enables the revaluation to be made with economies of scale and therefore to be more cost-effective. Revaluations are more worthwhile where fixed assets constitute a greater proportion of total assets, enabling the generation of a significant increase in a firm’s value, and therefore has a greater potential to enhance the asset base (Lin and Peasnell, 2000b). The studies of Brown, P., Izan, H. Y. & Loh, A. L. (2002) and Lin and Peasnell (2000b) predicted a positive relationship between the decision to undertake revaluations and the fixed asset intensity. Their results confirmed this relationship. However, while Lin and Peasnell (2000a) also hypothesized a positive relationship between fixed asset intensity and revaluation possibility, they did not find evidence of this relationship. No further explanation was provided in their study.

2.2 Asset Revaluation Implications on Earnings Performance

The political cost hypothesis predicts that large companies are more likely to use accounting policy choices that reduce reported profits rather than small companies. More precisely, large companies and companies with abnormal return on assets may attract the attention of regulators. Therefore, these companies are more likely to adopt an accounting policy that gives a conservative picture of profitability. Upward revaluation lowers the return on equity because the amount of equity (and asset) is increasing. Also, profits are lower because of the increased future depreciation cost caused by boosted (revalued) amount of fixed asset.

Gautam (2008) found out that high fixed cost can deplete a company’s profit especially if sales fall. The revelation that other variables do not have significant impact on profit after tax may be explained by the fact that companies probably adjust selling prices of their products to take care of changes in variable cost other than fixed cost.

Lopes and Walker (2012) concluded that there is a negative relationship between fixed assets revaluations and future firm operating income, which was arguably caused by the revaluers which engaged in opportunistic action. Jaggi, B. & Judy, T. (2001) found out that the association between upward fixed assets revaluations and future firm operating income is significantly positive. They concluded that fixed asset revaluation arises from the motive of conveying fair value to the user of financial statements. Chainirun and Narktabee (2009) found out that firms are willing to conduct fixed assets revaluation for signaling their opportunity in expanding their scale of business and the improvement in liquidity and profitability.

There have been researchers who try to observe the association between decisions to choose fixed assets and future operating performance of firms. Aboody, D., Barth, M. T. & Kasnik, R. (2009) posit there is a significant positive relationship between fixed assets revaluations and future firm performance, which measured by changes in operating income and operating cash flow for one, two, and three subsequent years. Using a similar research design with Aboody et al. (1999), by observing Hong Kong firms, Jaggi, B. & Judy, T. (2001) found out that the association between upward fixed assets revaluations and future firm operating income is significantly positive. They concluded that fixed asset revaluation arises from the motive of conveying fair value to the user of financial statements (Jaggi, B. & Judy, T. 2001). Aligned with the previous two results, Zhai (2007) also concluded that decision to adopt revaluation model for fixed assets is positively affect the future operating income of firms, despite the relationship is insignificance.

On the other hand, contrary with the result of most research in this topic, Lopes and Walker (2012) found out that fixed assets revaluation shows negative association on the future firm operating performance, which measured by changes in operating income for one, two, and three subsequent years. This negative effect caused by opportunistic motivation from indebtedness and illiquidity, which also amplified by negative association between Brazilian Corporate Governance Index (BCGI) score and the choice to revalue the fixed assets (Lopes and Walker, 2012).

Overall, most of the past research concluded that there is a positive effect of the revaluation of fixed assets to the future firm operating income (Aboody et al., 1999; Jaggi, B. & Judy, T. 2001; Zhai, 2007). Only Lopes and Walker (2012) concluded that there is a negative relationship between fixed assets revaluations and future firm operating income, which was arguably caused by the revaluers which engaged in opportunistic action. However, Siregar and Utama (2008) mentioned that discretionary accruals of firms tend to be for the purpose of efficient contracting, not for the opportunistic purpose, which implied good corporate governance practice among firms.
Applying fixed assets revaluation increase the asset base and increase the depreciation expense, thus it reduces the current Return on Assets (ROA) and decreases the current earnings. Such situation needs to be compensated by better future performance. Some researchers pointed out that firms try to give a positive signal about the future performance by conducting asset revaluation. Lin and Peasnell (2000) and Barlev B., Fried D., Haddad, J. R., & Livnat, J. (2007). estimated firms that have prospective better future performance are more willing to revalue, but those that anticipate poor future performance are more hesitant to revalue their fixed assets. Moreover, Jaggi, B. & Judy, T. (2001) and Chainirun and Narktabtee (2009) found out that firms are willing to conduct fixed assets revaluation for signalling their opportunity in expanding their scale of business and the improvement in liquidity. Therefore, by deducing a preliminary conclusion from prior research about the effect of fixed assets revaluation on the future operating income, it can be hypothesized that:

H1: Asset revaluation decision of firms have negative effect on their current earnings performance.
H2: Asset revaluation decision of firms have positive impact on their future earnings performance.

2.3 Theoretical and Empirical Framework

In order to examine the hidden motivations for the asset revaluation accounting decision and the effect of revaluation on earnings performance, the positive accounting theory is adopted. Positive accounting theory (PAT) research began flourishing in the 1960s when Ball and Brown (1968) and Beaver & Ryan (1968) introduced empirical finance methods to financial accounting. The term “positive” refers to the theory that attempts to explain and make good predictions of particular phenomena. The positive accounting theory (PAT) relied in great part on work undertaken in economics and was heavily reliant on the efficient market hypothesis, the capital assets pricing model, and agency theory. PAT has led to a large amount of empirical studies. Positive researchers empirically test their predictions around the bonus plan hypothesis, the debt covenant hypothesis, and the political cost hypothesis. These hypotheses can be used in two distinguished forms of positive accounting theory. The first form is the opportunistic form asserting that managers in electing accounting procedures react to maximize the wealth, and the second form is the efficiency form for good corporate governance. The positive accounting hypothesis has three hypotheses – the debt hypothesis, signalling hypothesis and political hypothesis.

A number of scholars have attempted to link assets revaluation with earnings performance of firms. The results of three scholarships are highlighted here. Mawih (2014) examined the effects of assets structure and on the financial performance of some manufacturing companies listed on Muscat Securities Market (MSM), for the period 2008-2012. The assets structure was measured by fixed assets turnover and current assets turnover while the financial performance was measured by ROA and ROE. The overall result of the study was that the structure of assets does not have a strong impact on profitability in terms of ROE. Another result of the study indicated that only the fixed assets revaluation had impact on ROE unlike ROA.

Mwaniki and Omagwa (2017) examined relationship between the asset structure, revaluation and the financial performance of the firms quoted under the commercial and service sector at the NSE, Kenya. The target population by the study was the secondary data from the annual reports of the firms. The asset structure is analyzed in term of Property, Plants and Equipment; current assets; intangible assets; and long-term investments and funds, which formed the independent variables. The dependent variable of interest was the financial performance of the firms, and was measured in terms of: earning per share; return on assets; return on equity, profit margin (return on sales); and current ratio, by aid of a composite index. A census was done on the entire firms listed under this sector by the year 2014, for a five-year period, 2010 to 2014. The findings indicated that assets revaluation had positive impact on the financial performance of firms.

Svetlana and Aaro (2012) examined the extent to which investment in fixed assets and its revaluation is related to the return on assets of selected companies in the European Union Member States. A sample of 8,074 companies was used for the study which was carried out over a period of nine years (2001-2009). The study employed multiple regression analysis to analyze the relationship between the dependent variable (ROA) and the independent variable (Level of Investment on fixed asset). The results revealed a strong positive statistical relationship between the level of fixed asset investment and return on asset.

III. METHODOLOGY

Research design is concerned with producing a plan that guides the research process (Wilson, 2010). This study used Descriptive Research design. The study used secondary data obtained from financial statements of manufacturing firms in Nigeria which were extracted from the published annual financial statements of the target manufacturing firms listed in the NSE for 2010 to 2018. This study employed a quantitative methodology in view of the nature of the variables used for analyses.

Ordinary Least Regression Analysis was adopted to test the research hypotheses. The models developed are

\[ CEP = \beta_0 + \beta_1FAR_t + \epsilon_t \] \[ FEP = \beta_0 + \beta_1FAR_t + \epsilon_t \]

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Where: CEP and FEP denote Current Earnings Performance and Future Earnings Performance respectively, and are the dependent variables of the study. CEP is expressed as Profit before interest and tax scaled by total assets (i.e. ROA), while FEP is expressed as one year ahead (ROA). FAR denotes Fixed Assets Revaluation. $\beta_1$ is the coefficient explaining the extent to which Asset revaluation affects ROA.

IV. RESULTS AND DISCUSSIONS

4.1 Descriptive Statistics

Table 1: Descriptive statistics (Pooled data from 2010-2018)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Min</th>
<th>Median</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEV</td>
<td>0.699</td>
<td>0.3934</td>
<td>0.451</td>
<td>0.525</td>
<td>0.757</td>
</tr>
<tr>
<td>FSIZE</td>
<td>6.121</td>
<td>2.972</td>
<td>5.443</td>
<td>6.012</td>
<td>7.129</td>
</tr>
<tr>
<td>FAI</td>
<td>0.560</td>
<td>0.319</td>
<td>0.514</td>
<td>0.557</td>
<td>0.880</td>
</tr>
<tr>
<td>CEP</td>
<td>0.071</td>
<td>0.032</td>
<td>-0.129</td>
<td>0.051</td>
<td>0.231</td>
</tr>
<tr>
<td>FEP</td>
<td>0.052</td>
<td>0.029</td>
<td>-0.091</td>
<td>0.044</td>
<td>0.211</td>
</tr>
</tbody>
</table>

Source: Eviews 10.

LEV is the leverage level that is measured by the ratio of total liabilities to total tangible assets prior to the revaluation adjustment. FSIZE is the natural logarithm of total assets before revaluation adjustment respectively. FAI is the ratio of total fixed assets to total assets before revaluation adjustment. CEP is the current year ROA, and FEP is one year ahead ROA.

The descriptive statistical test results show that leverage has a minimum value of 0.451, maximum of 0.757 and an average of 0.699, indicating that manufacturing firms in Nigeria have high leverage, with debts being higher than equity financing in most cases. Firm size has a minimum value of 5.443, maximum 7.129 and an average of 6.121, indicating that the sampled firms have large amount total assets, signifying their size. Fixed asset intensity has a minimum value of 0.514, maximum of 0.680 and an average of 0.560, indicating that the amount of fixed assets in total assets portfolio is high among the sampled firm. ROA has a minimum value of -0.129, maximum of 0.231 and an average of 0.071, indicating that current year ROA among manufacturing firms is unusually low. Again, one year ahead ROA, expressed as FEP revealed a mean value of 0.052 indicating that future earnings are about 5.2 percent of average fixed assets.

4.2 Regression Results and Discussion

Table 2: Regression of the effect of Fixed Assets Revaluation on current earnings performance (Model 1) and future earnings performance (Model 2)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Expected</th>
<th>Coefficient</th>
<th>S.E</th>
<th>t-statistics</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODEL1: CEP = $\beta_0 + \beta_1$FAR$_t$ + $\epsilon_t$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>0.171</td>
<td>0.157</td>
<td></td>
<td>3.212</td>
<td>0.007</td>
</tr>
<tr>
<td>FAR</td>
<td>-</td>
<td>-0.287</td>
<td>1.163</td>
<td>-4.446</td>
<td>0.000</td>
</tr>
<tr>
<td>R-Squared</td>
<td>0.89</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-prob</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dependent Variable</td>
<td>CEP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| MODEL2: FEP = $\beta_0 + \beta_1$FAR$_t$ + $\epsilon_t$ |
| Constant | 0.551    | 0.982       | 6.982 | 0.000        |
| FAR      | +        | 0.311       | 0.856 | 4.392        | 0.000   |
| R-Squared| 0.77     |             |     |              |         |
| F-prob   | 0.000    |             |     |              |         |
| Dependent Variable | FEP |             |     |              |         |

Source: Eviews 10.

4.2.1 Asset Revaluation and Current Earnings Performance

The regression result in Panel 1 row 2 revealed a negative and significant coefficient of -0.287. This result mean that asset revaluation depletes current earnings performance by about 28.7 percent in the manufacturing industry. The result is similar to that in the work of Lopes and Walker (2012) who concluded that there is a negative relationship between fixed assets revaluations and current firm operating income.
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The significant p-value of 0.000<0.05 level of significance indicates that H1 is accepted. The research upholds that asset revaluation has significant negative effects on current earnings performance of quoted manufacturing firms in Nigeria.

4.2.2 Asset Revaluation and Future Earnings Performance

The result of logistic regression test in panel 2, row two yields a positive regression coefficient of 0.311. The value of positive coefficients supported by positive accounting theory says that firms with upward revaluation decisions reap higher earnings are more likely to choose to use fixed asset revaluation methods in order to decrease leverage ratios. The regression result in Panel 2 row 2 revealed a positive and significant coefficient of 0.311. This result mean that asset revaluation improves future earnings performance by about 31.1 percent in the manufacturing industry. The findings conform with Jaggi and Tsui (2001) and Chainirun and Narktabtee (2009) who found that there is a positive relationship between fixed assets revaluations and future firm operating income.

The significant p-value of 0.000<0.05 level of significance indicates that H2 is accepted. The research upholds that asset revaluation has significant positive impact on future earnings performance of quoted manufacturing firms in Nigeria.

V. CONCLUSION

This study examined the fixed asset revaluation behaviour of Nigerian manufacturing companies during the period 2010 – 2018, and how the decision to conduct upward revaluation of fixed assets impacts the current and future earnings performance of these quoted manufacturing companies. It is widely accepted in the literature that upward revaluations are used to reduce companies’ contracting costs, political costs and information asymmetry. Again, the literature posit that upward revaluations reduce current earnings and returns on assets figures. The results did find the predicted negative relationships between revaluations and the variable proxying for current earnings. The higher the revaluation value, the lower the current earnings value of the firm, as a result of increasing value of depreciation expenses. Finally, assets revaluation has positive effects on future earnings performance (measured as one year ahead ROA) of quoted manufacturing companies. The asset revaluation can be used to increase cash flows in the future, and consequently increase the operating earnings of firms. In conclusion, positive accounting theory is applied to explain the motivations for asset revaluation, and the effect of revaluation on earnings performance of firms in Nigeria. This paper strengthens the empirical evidence of the PAT in Nigeria.

The study therefore recommends that management of manufacturing firms should adopt fixed assets revaluation method that are in line with the relevant statute and accounting standard, and revalue assets if it the future benefit on earnings outweighs the current earnings depletion.

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