HUMAN RESOURCE ACCOUNTING AND FINANCIAL PERFORMANCE OF SELECTED QUOTED NIGERIAN FOOD AND BEVERAGES FIRMS

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ABSTRACT

The study examined the effect of Human resource accounting (HRA) on the financial performance (return on assets-ROA) of selected quoted Nigerian food and beverages firms. Four of these firms were sampled from 2006-2021. The research analyzed the data generated using the panel regression analysis through the instrumentality of Econometric Views. The study evidenced that, staff trainings and development costs (STC) and welfare costs (EWC) improved firm performance significantly but staff safety cost did not. However, hiring cost has a negative significant effect on ROA of the targeted firms in Nigeria during the study periods. Hence, the paper concluded that human resource accounting is instrumental to higher firm performance. As such, the study recommends that management of selected firms should not see their staff trainings as a one-off thing instead they should conduct both off and on-the-job trainings on a regular basis. Lastly, management of the targeted firms must ensure that their welfare package include both monetary and non-monetary compensation.

Keywords: Human Resource Accounting, Financial Performance, Quoted Nigerian Food and Beverages Firms.
INTRODUCTION

All over the universe, all companies (be it small, medium, or large companies) need a strong, efficient, highly competitive and future-centric human resource to succeed and also continue as a going entity. Bhovi (2016) aver, business organization’s success or failure depends on the quality of human resources, like staff caliber, skills, efficiency, creativity, ability and dedication of their resources towards success in the organization. Basically, a company’s human resources are employees of various grades employed in production in a company. They are categorized into unskilled, semi-skilled, managerial and technical skilled in an organization. Bhovi (2016) noted that, organizational resources are both human and inhuman. The inhuman resources falls under the 3ms (money, machines, and materials) while the human resource is termed the last m (men). All the 4ms being money, machines, material, and men are treated differently in the financial statement (Akintoye, 2016) (Manukaji, Osisioma & Okoye 2019). Historically, HRA has been discussed extensively since the late 1960’s. This may due to the increasing need to think beyond seeing the human resource as an end to a means but the greatest resource every firm need to achieve its core objective-higher returns on assets. Akintoye (2016) added that, HRA remains one of the most debated issues in accounting. Furthermore, the link between HRA and financial performance-ROA is considered on the birthed from the need to see the human resource as an asset and not simply costs. Another critical issue which drew the attention of this study apart from the fact that, HRA should not be considered as a cost but as an asset, the construct is yet to get a universal parameter for its measurement and recognition despite the endless studies devoted to the subject matter (Manukaji et’al, 2019). Again, literature on the HRA and firms’ performance with focus on the targeted firms is few even till date. More so, appealing arguments have made the case both for and against HRA as a means of achieving long-run competitive advantage. Additionally, there no clear cut argument as to: if HRA improves firms’ performance at all times. Thus, the effects HRA has on performance are uncertain. In view of these issues stated above, this study examined the effect of HRA on financial performance of quoted Nigerian food and beverages firms. Specifically, the paper determines if costs associated the trainings and development of staff alongside their welfare, hiring, and safety has any effects on the targeted firms’ ROA from 2006 to 2021.

LITERATURE REVIEW

Conceptual Review

Conceptually, the term ‘Human Resource Accounting’ (HRA) is simply the act of accounting for human resource/element related expenditures. Again, it captures treating the human resource/element as an income yielding asset and not an expense that reduce profit, (Akinjare, Idowu & Sule, 2019). Ezejiofor, John-Akamelu and Iyidiobi (2017) argued that this erroneous to under report the human resource and that, if properly reported, firms’ performance objective can be achieved. Generally, firms’ performance remains a key parameter that is widely considered as a measure of a firm’s success or failure and that, high performance-high ROA cannot be achieved without efficient human resource. Although, countless performance studies though exist but its definition has been challenging to researchers. Akintoye (2016), reported several other definitions of performance as highlighted by Akinjare, Idowu and Sule (2019),
firm performance are set of financial/market-based and non-financial/non-market-based indicators which offer information on degree to which firms’ objectives are attained. Most common measures of firms’ performance are categorized into: turnover; organizational category (productivity, customer satisfaction, quality, and flexibility); profitability categories (return on assets-ROA, return on equity-ROE, and employee value); and financial market categories (stock prices and Tobin’s Q) (Akintoye, 2016). However, this study is confined to return on assets-ROA. Specifically, ROA tells an investor the amount a firm generates from its assets (invested capital) (Akinjare, et’al 2019). To management, it gives them an idea as to how they are able to use the resources of the firm to generate high returns. Justifiably, amortized value of HRA is recorded as expenditure while the revenue expenditure is charged to revenue in both the financial statements and statements of comprehensive net income. Mathematically, ROA is expressed as: Net Income / Total Assets (Manukaji et’al, 2019).

**Theoretical Review**

Both the human capital theory (HCT) and the Resource Based View (RBV) anchored this study. The HCT regards the human capital as a useful resource organizations can use to achieve high returns. Hence, advocated for increasing in training and development costs. Bassey and Tapang (2012) argued that investments in human capital is a highly productive investment decision and if sustained increases firm’s performance. Hence, the benefits accruable for human resource investments are far higher than the incurred cost. This formed the major focus of the study.

Amber (2016) argues that, companies possess various resources with which they use gain high competitive advantage comparatively. Resources that are valuable and rare can lead to the creation of competitive advantage. More so, this theory sees human capital as a resource that cannot be substituted or imitated which gives a company a competitive advantage over others.

**Empirical Studies**

Ndum and Oranefo (2021) examined the human resource costs and performance of 5 quoted Nigerian brewery firms from 2007-2019. The study reported that, personnel costs improved net profit margins significantly but increase ROA minimally.

Akinjare et’al (2019) found that personnel, training, and development costs all improved the performance (ROA) of the 10 targeted oil and gas firms in Nigeria significantly from 2012 to 2016.

Similarly, Manukaji et’al (2019) examined whether human resource related costs improve quoted firms’ performance from 2014-2018 or not. The study used descriptive, inferential statistics, and multivariate analysis. The study evidenced that, staff salaries and training costs all improved firms’ performance significantly.

Ezejiofor, et’al (2017) and Olowolaju (2016) using various approaches recorded that, staff salary increments and pension funds influenced organizational profitability significantly.

**METHODOLOGY**

The study considered the quantitative analyses. Due to data availability, our study four (4) food and beverage firms as at 31st December, 2021 were targeted. These four targeted firms are: 7up Bottling Company, Coca-Cola Nigeria, Nestle Foods Nigeria, and Heineken Beverages.

Furthermore, the panel regression estimate was considered using the Econometric Views version 9.0. The choice of this econometric package lies in the fact that its user-friendliness and global acceptability. Accordingly, the following models were specified:
P=f (HRA)-------------------------------------------------------------1
Where
P = performance
f = function
HRA = Human Resource Accounting
But
ROA=f (STC,SWC+,SHC,SSC)-----------------------------------------------2
Therefore substituting equation (2) into equation (1) along with a constant ($\beta_0$) we have
equation (3) as our model specification as shown below
ROA= $\beta_0+\beta_1$STC + $\beta_2$SWC + $\beta_3$SHC + $\beta_4$ SSC + et --------------------------3
Where
ROA = Return on Assets
$\beta_0$ = constant
STC = Staff Training Costs
SWC = Staff Welfare Costs
SHC = Staff Hiring Costs
SSC = Staff Safety Costs
e = error term.

RESULTS AND DISCUSSIONS

Data Analysis
This section covered the descriptive, inferential statistics-correlation analysis alongside various diagnostic tests such as normality, serial correlations test, Heteroskedasticity (constant residual error test), and model misspecification test. Each of them are presented and discussed below:

Table 1
Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>ROA</th>
<th>STC</th>
<th>SWC</th>
<th>SHC</th>
<th>SSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>14.02458</td>
<td>75390680</td>
<td>71442670</td>
<td>1.27E+08</td>
<td>3910594.</td>
</tr>
<tr>
<td>Median</td>
<td>14.20650</td>
<td>70435313</td>
<td>63062211</td>
<td>78842339</td>
<td>3391672.</td>
</tr>
<tr>
<td>Maximum</td>
<td>52.91000</td>
<td>2.44E+08</td>
<td>1.96E+08</td>
<td>3.89E+08</td>
<td>12024550</td>
</tr>
<tr>
<td>Minimum</td>
<td>-34.98810</td>
<td>1672357.</td>
<td>2801539.</td>
<td>5450215.</td>
<td>1034136.</td>
</tr>
<tr>
<td>STC. Dev.</td>
<td>17.01998</td>
<td>53287315</td>
<td>48560963</td>
<td>1.20E+08</td>
<td>2413313.</td>
</tr>
<tr>
<td>Observations</td>
<td>64</td>
<td>64</td>
<td>64</td>
<td>64</td>
<td>64</td>
</tr>
</tbody>
</table>

Source: Econometric Views Version 9.0 (2022)

Table 1 above accounted for the description for all study variables throughout the periods of study. The study evidenced that ROA, STC, EWC, SHC, and SSC reported an average values of 14.02458, 75390680, 71442670, 1.27E+08, and 3910594. Meanwhile, only ROA was very highly volatility since only ROA reported a mean value lower than its standard deviation value. By implication, the mean of ROA deviated far away from its standard deviation value.

Lastly, ROA, STC, EWC, SHC, and SSC reported minimum/lowest values of -34.98810, 1672357.0, 2801539., 5450215., 1034136 respectively and maximum/highest values of 52.91000, 2.44E+08, 1.96E+08, 3.89E+08, and 12024550 respectively.
Table 2

*Correlation Analysis*

<table>
<thead>
<tr>
<th>Variables</th>
<th>ROA</th>
<th>STC</th>
<th>SWC</th>
<th>SHC</th>
<th>SSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>1.000000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STC</td>
<td>0.844498</td>
<td>1.000000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SWC</td>
<td>0.502283</td>
<td>0.298092</td>
<td>1.000000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SHC</td>
<td>-0.681362</td>
<td>0.304579</td>
<td>0.226780</td>
<td>1.000000</td>
<td></td>
</tr>
<tr>
<td>SSC</td>
<td>0.223971</td>
<td>0.247596</td>
<td>0.287515</td>
<td>-0.002009</td>
<td>1.000000</td>
</tr>
</tbody>
</table>

Source: Econometric Views version 9.0 (2022)

Table 2 reported that the following variables had positive coefficient values: (STC-0.844498, SWC-0.502283, and SSC-0.223971). Meanwhile, SHC has coefficient value of -0.681362 signaling that, it influenced ROA negatively yet strongly.

Furthermore, the correlation coefficient reported that, all regressors reported low correlation coefficients. This is because they are all below the threshold of 0.80, suggesting no problem of multicollinearity in the predictor variables.

**Robustness (Diagnostic) Test**

To ensure that, the panel estimate is reliable, accurate, and valid, we subjected the model to the following robustness (diagnostic) check:

**Table 3**

*Robustness (Diagnostic) Tests*

<table>
<thead>
<tr>
<th>Robustness (Diagnostic) Tests</th>
<th>F-statistic</th>
<th>Prob. F</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test for Heteroskedasticity</td>
<td>0.329018</td>
<td>0.9559</td>
<td>Homoskedastic</td>
</tr>
<tr>
<td>Test for Omitted Variables: Ramsey Reset Test</td>
<td>0.389511</td>
<td>0.5393</td>
<td>Correctly specified</td>
</tr>
<tr>
<td>Test for Auto-correlation</td>
<td>1.501356</td>
<td>0.1440</td>
<td>No serial auto-correlation</td>
</tr>
</tbody>
</table>

Source: Econometric Views Version 9.0 (2022)

The results presented in table 3 evidenced that, the series are Homoskedastic, correctly specified and exhibited no autocorrelation issue since their p-values are all above 5%. The estimated model passed all the tests and fit for policy recommendation.

**Regression Results and Discussions**

Having ascertained that the series are fit for policy recommendation, we then subjected the model to panel regression analysis. The Panel Regression Estimate is presented in table 4 below:

**Table 4**

*Panel Regression Estimates*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>STC. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-0.689757</td>
<td>0.121527</td>
<td>-5.676494</td>
<td>0.0000</td>
</tr>
<tr>
<td>LOG(STC)</td>
<td>0.606239</td>
<td>0.116473</td>
<td>5.209497</td>
<td>0.0000</td>
</tr>
<tr>
<td>LOG(SWC)</td>
<td>0.734429</td>
<td>0.185006</td>
<td>3.969757</td>
<td>0.0106</td>
</tr>
<tr>
<td>LOG(SHC)</td>
<td>-0.577174</td>
<td>0.182996</td>
<td>-3.154018</td>
<td>0.0253</td>
</tr>
<tr>
<td>LOG(SSC)</td>
<td>-0.127419</td>
<td>0.214435</td>
<td>-0.594209</td>
<td>0.5549</td>
</tr>
</tbody>
</table>

R-squared | 0.577431   | Mean dependent var | 14.02458 |
Adjusted R-squared | 0.529045 | Durbin-Watson stat | 2.102830 |
F-statistic | 9.867116   | Prob(F-statistic)  | 0.000001 |

Source: Econometric Views Version 9.0 (2022)
Table 4 considers the R-Squared, adjusted r-squared, Durbin Watson Statistics, and the global statistics being F-Statistics. The result reported R-squared value of 0.577431 and an adjusted R-Squared value of 0.529045. By implication, the regressors were able to 57.74% variation/change in the regressed while the remaining 42.26% is covered by the error term. More so, the regression result evidenced that the series is free from serial correlation since Durbin Watson value is benchmarked at 2.102830.

Furthermore, the F-statistic tested for the overall model significance. Accordingly, the regression result as reported in table 4 evidenced that the series is highly statistically significant on the overall. However, the F-statistics does not determine which of the variable that makes the overall model to be highly statistically significant. In view of this, we used the p-values of each variable to test which of the variable that is significant or not.

Individually, STC is improved the targeted firms’ performance (ROA) by 60.62% and is significant. This further revealed that though STC cost may sometime be highly demanding but its effect on ROA is encouraging. This result is line with Akinjare et’al (2019).

Again, staff welfare cost denoted by SWC improved the targeted firms’ performance significantly such that it increased it up to 73.44%. The justification for this is that, when a firm’s compensatory strategies considers the employees’ welfare, the employees will in turn ensures that the firm’s central goal being high returns are being achieved at all cost. This supports the Ezejiofor et’al (2017) findings.

Conversely, hiring cost deter the targeted firms’ ROA by 12.74%. By implication, the higher the hiring cost, the lower the ROA. Put differently, 1% rise (fall) in hiring cost will reduce (increase) ROA by an insignificant value of 12.74%. This is justified on the ground that every employee’s desires to give in his/her best wherein his/her job security is unfathomable. This result support Ndum and Oranefo (2021); Akinjare et’al (2019); Manukaji et’al (2019) findings.

Lastly, staff safety cost though positive but was statistically insignificant. This signals that staff safety cost only contributed minimally to ROAs of targeted firms. The justification for this is that most a time firms do not incorporate the safety costs of their employees into their cost structure. This result also supports Ndum and Oranefo (2021); Akinjare et’al (2019); Manukaji et’al (2019) findings.

Table 4

<table>
<thead>
<tr>
<th>Testable Form</th>
<th>Coefficient</th>
<th>P-Value</th>
<th>Decision Rule</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>STD ≠ ROA</td>
<td>0.606239</td>
<td>0.0000</td>
<td>Reject H0 if its P-value is &lt;5%, otherwise accept HA1</td>
<td>Reject H01</td>
</tr>
<tr>
<td>SWC ≠ ROA</td>
<td>0.734429</td>
<td>0.0106</td>
<td>Reject H02 if its P-value is &lt;5%, otherwise accept HA2</td>
<td>Reject H02</td>
</tr>
<tr>
<td>SHC ≠ ROA</td>
<td>-0.577174</td>
<td>0.0253</td>
<td>Reject H03 if its P-value is &lt;5%, otherwise accept HA3</td>
<td>Reject H03</td>
</tr>
<tr>
<td>SSC ≠ ROA</td>
<td>-0.127419</td>
<td>0.5549</td>
<td>Reject H04 if its P-value is &lt;5%, otherwise accept HA4</td>
<td>Accept H04</td>
</tr>
</tbody>
</table>

Source: Researchers’ Compilation Based on E-Views Output (2021)

Sequel to the above, the individual results are discussed below:

**CONCLUSIONS AND RECOMMENDATIONS**

The study evidenced that on the overall, HRA improved ROAs of targeted firms significantly. Also, cost associated with staff trainings and development, and welfare improved the ROA of targeted firms immensely but staff safety costs improved the targeted firms’ ROA minimally.
However, staff hiring costs reduced ROAs of the targeted firms significantly. Hence, the paper concluded that, human resource accounting-HRA is instrumental to firms’ performance (ROA) in Nigeria. In view of this, the paper recommended that, regulatory authorities of the targeted firms must ensure that:

i. training are tailored towards each of their staff area of specialization and interest.
ii. their welfare package include both monetary and non-monetary compensation.
iii. their contract staff are given the needed morale supports. This will help to correct the negative result which exists between hiring cost and firm performance.
iv. firms under the industry voluntarily disclose their staff safety cost on annual basis.

References


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