CASHFLOW AND CORPORATE PERFORMANCE: A STUDY OF SELECTED FOOD AND BEVERAGES COMPANIES IN NIGERIA

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ABSTRACT: The study examines the relationship between cash flow and corporate performance in the Food and Beverages sector of Nigeria. The study involved a survey of Six (6) Food and Beverages companies quoted in the Nigerian Stock Exchange. Data were obtained from the annual report and accounts of the selected companies under study. The relevant data were subjected to statistical analysis using the multiple regression technique. The results of the study revealed that operating and financing cash flows have significant positive relationship with corporate performance in the Food and Beverage Sector of Nigeria. It was also empirically verified that investing cash flow and corporate performance have significant negative relationship. The researchers recommended that regulatory authorities such as IFRSB, FRCN, CBN, NSE, SEC, NDIC, etc. should encourage external auditors of these quoted Food and Beverages Companies to use cash flow ratios in evaluating the performance of a company before forming an independent opinion on the financial statement. This will give detailed information on the company to enable investors make rational investment decisions.

KEYWORDS: Cash flow, Operating, Investing, Financing and Performance.

INTRODUCTION

Cash flow of a company is a crucial factor that enhances its operations. According to Efobi (2008), Due to the relevance of cash flows in the company’s operations and performance, corporate organizations need to develop a suitable cash flow mix and apply it in order to maximize shareholders values. Uremadu (2004) sees cash flows of an organization as those pool of funds that the company commits to its fixed assets, inventories, account receivables and marketable securities” that lead to corporate profit. The ability of the company to effectively choose adequate source of funds to fiancé its operations will differentiate strong cash flow governance and poorly managed cash flows (Efobi, 2008). For the cash flows to be well structured and effectively utilized, a business firm must be able to devise various ways for selecting the best components of its cash flow...
flows which would be used in the company’s operation to raise its productivity or achieve performance. This process should be based on the criteria well drawn up by the finance manager after making a careful financial planning and control for the company (Uremadu, 2004).

Cash flow is an index of the money that is actually received by or paid out by a firm for certain time period (Albrecht, 2003). This index is not inclusive of non-cash accounting charges such as depreciation. Cash represents the firm’s vascular system, if it dwindles, the business will not survive. The fact that a firm is profitable does not mean that it is also solvent. The profit is not cash. The solvency, flexibility and the financial performance of the firm are set on the firm’s ability to generate positive cash flows from the operating, investing and financing activities (Turcas, 2011). Cash flows represent all inputs and outputs liquidities and cash equivalents. Liquidities represent cash on hand and demand deposits. Cash equivalents are short-term investments with a liquidity degree that can be easily converted into cash with an insignificant risk of value change. According to Adelegan (2003), cash flows are more direct measure of liquidity and a contributing factor in corporate performance. Cash flow information assists its financial statement users in obtaining the relevant information concerning the use of resources of virtually the entire financial resources over a given time period (Ross, et al 2007).

Financial statements translate the financial activity of the enterprise into a more or less objective set of numbers, which provide valuable information about the firm’s performance and about its possible problems and its potential in the future (Turcas, 2001). The importance of cash flows cannot be overemphasized mainly because the users of accounting information are particularly interested in the cash of the company that is published in its financial statements (Narkabtee 2000). According to Bodie, et al (2004) internally, managers need to know the current financial position of the firm (performance and problem), continuing with problems and control functions. According to Fabozzi and Markomits (2006), suppliers are interested in the firm’s liquidity because their rights are generally on a short term and in this case the company’s ability to pay is best reflected by the liquidity indicators. According to Bragg (2002), investors in bounds, who ordinarily lend the firm on medium or long term for remuneration, are rather interested in the company’s ability to generate cash flow for medium and long-term coverage of debt service.

It has been argued that there is weak governance of cash flows in the industries and it allows managers to pursue personal goals whereby putting management’s interest at odds with the interest of shareholders (Chikashi, 2003; Ali, et al, 2013; Thanh and Nguyen, 2013; Zhou,et al 2012; Watson, 2005 and Ashtiani, 2005) who further argue that cash flows and corporate performance have a significant negative relationship.

These arguments have been countered by researchers in related studies such as (Shahmoradi, 2002; Khoshdel, 2006; Adelegan, 2003; Miar, 1995 and Brush, et al, 200), who argued that cash flows and corporate performance have a significant positive relationship. These disagreements among the researchers have created a gap, thus warranting further examination of the phenomenon. The traditional methods of financial analysis that Companies have been using for a long time to assess their financial performance are plagued by a number of drawbacks. The income statement and balance sheet cannot sufficiently evaluate the financial performance of a firm as the cash flow statements have proved to be. It is this situation that necessitated this research work which is aimed
at examining the relationship of cash flow with financial performance in the Food and Beverages Sector in Nigeria. Furthermore, accounting information from both the balance sheet and income statement are also less reliable with regards to the liquid analysis of a Company (Bernstein and Wild, 1999). In the light of the above, the study hopes to serve as a basis to enable shareholders, management, accountants, auditors, investors and creditors to break away from the conventional use of accounting systems for the evaluation of the performance of companies. In their place, the cash-flow statement ratios would be used for performance analysis.

Cash flows had to do with operating and investing activities. Operating activities had to do with expenses that do not guarantee a continues inflow of cash. The investing activities on the other hand guarantee a continues inflow of revenue. The issue is how best had these investing activities been evaluated with cash flow analysis or ratios in determining corporate performance instead of the traditional ratio analysis. Several studies had revealed that the traditional ratios are history base such as the balance sheet statement and the income statement which by their nature are records of sunk cost and not relevant for future decision making. Hence this study is to create a basis of directing more research and management application of cash-flow ratios more than the traditional ratios.

The broad objective of the study was to examine the relationship between cash flows and corporate performance in the Food and Beverages sector of Nigeria. The specific objectives of the study are as follows:

1. To examine to relationship between operating cash flows and corporate performance in the Food and Beverages sector of Nigeria.
2. To examine the correlation between investing cash flows and corporate performance in the Food and Beverages sector of Nigeria.
3. To examine the relationship between financing cash flows and corporate performance.

**REVIEW OF RELATED LITERATURE**

**Theoretical Framework**

This study is anchored on the theoretical framework that cash flows affects corporate performance, and that the extent or degree of that effect, depends on the financing policy, investment policy, accounting policy etc, adopted by the company. Two outstanding theories emerge and present a clear direction and firm behaviour about cash flows (Net-cash flows generated from operating, investing and financing activities). These are Agency cost theory and trade-off theory.

According to the agency theory, agency conflicts arise from the possible divergence of interest between shareholders (principals) and managers (agents) of firms. The primary duty of managers is to manage the firm in such a way that it generates returns to shareholders thereby increasing the profit figures and cash flows (Elliot and Elliot, 2002). According to Boodhoo (2009), the contribution of agency cost theory is that leverage firms are better for shareholders as debt level can be used for monitoring the managers. Thus, higher leverage is expected to lower agency costs, reduce inefficiency and thereby lead to improvement in corporate performance, (Akintoye, 2008). According to trade-off theory, if firms are more profitable they prefer debt financing as compared to equity for the sake of profit. This posture is driven by three forces (Raheman, et al 2007).
1. If a firm has a low profit, there exist greater chances of bankruptcy. So if the firm takes more debts there are chances that it is bankrupt and as a result of this, investors cannot have trust on it. On the other hand, if a firm has more profits then exists less chances of bankruptcy so that investor’s trust risen and the firm tends to ease more profits.

2. The agency cost which has to be borne by investors is a cost in from of interest rate because creditors always check the position of the company and monitor the management. So if a firm has a good image that it can get loan at a lower cost because creditors are not worried about bankruptcy and their agency cost is very low, it can acquire more debts.

3. More debt in a firm’s financing activities allows for more tax benefits as their tax liabilities become lower and even in some cases it is waved off. Some firms having more profits go for more debts rather than equity.

From the foregoing, this study considers the agency cost theory and trade off theory as the cornerstone of utilizing the resource related to the relationship between cash flow and corporate performance in the Food and Beverages sector of Nigeria.

Review of Empirical Studies

Ali, et al (2013), studies the association between various earnings and cash flow measures of firm performance and stock returns in Iran. They used the simple and multiple regressions to analyse the data for a period of nine consecutive years from 2003 to 2011. The study revealed that company’s performance and cash flow have a significant negative relationship; furthermore, earning based measures are more related to stock returns and depict the company performance better than cash flow measures in some companies with higher accruals.

Thanh and Nguyen (2013), carried out a study on the effect of Banking Relationship on firm performance in Vietnam. They used the multiple regression to analyse the data, using a sample of 465 companies listed in Vietnam observed in period 2007 to 2010. The study revealed that firm performance decreases as the number of bank relationships increases. Additionally, the study also indicates that cash flow has negative relationship with firms, return on equity, while assets have negative association with return on assets.

Chikashi (2013), carried out an investigation of comprehensive income and firm performance. The case of the electric appliances industry of the Tokyo Stock Exchange. The researcher uses the data for the fiscal year of 2009 to 2011 and employs the pooled regressions (Panel data regression analyses). The study revealed that cash flow and firm performance have a significant negative relationship. In addition, comprehensive incomes published by the firms were superior to other earnings or cash flow variables in predicting their future stock returns.

Zhou, et al (2012), examined the relationship between free cash flow and financial performance evidence from the listed Real Estate Companies in China. They used principal component analysis and regression analysis on the data from 2006 – 2011 of all listed real estate companies in China. The study revealed that the free cash flow of a company is negatively liner –correlated to its financial performance too much free cash flow will lead the financial performance to decline.

Adelegan (2003), carried out an empirical analysis of the relationship between cash flow and divided changes in Nigeria. The researcher used the ordinary least squares (OLS) method to analyse the data on a sample of 63 quoted firms in Nigeria over a wider testing period from 1984
to 1997. The empirical results reveal that the relationship between cash flow and firm performance is positively significant.

Additionally, the relationship between cash flows and dividend changes depend substantially on the level of growth, capital structure choice, and size of each firm and economic policy changes. Brush, et al (2000), examines the free cash flow hypothesis for sales growth and firm performance. They used the white and Durbin- Watson tests on the data that covers the years 1988 to 1995. The results reveal that the firm performance and flash flow have a significant positive relationship. But different governance conditions affect sales growth and performance in different ways.

Miar (1995) examines the information content of cash flows financial ratios in Tehran stock exchange. He used the ordinary Least Square (OLS) Method to analyse the data for the years 1988 to 1994 of 480 listed companies in the study revealed that existing information in cashflow statement ratios leads to a substantial increase in correlation among the rations of income statement and balance sheet with stock returns. But there is a weaker correlation among the cash flows ratios comparing with ratios of income statement and balance sheet in stock returns.

Farshadfar (1999) studies the association of accrual earnings and operating cashflows with stock returns. The researcher analyse the data via the statistical linear regression method per year and mean of 5 years. He deduced that there is not any meaningful liner relationship between operating cash flows, operating accrual earnings with stock returns.

Shahmoradi (2002) examined the association between accounting earnings and stock returns in firm listed in Tehran stock exchange. He analyse the data via person correlation and simple regression method. The study revealed that there is a meaningful relationship among net profit, operating earnings with stock returns.

Ashitihani (2005), studies the relationship between accounting rations, operating cashflows, investments, financing and stock returns in Tehran Stock Exchange. The researcher used the Pearson correlation and simple liner regression to analyse the data of a sample of 650 listed companies for the years 1998 to 2004. the results showed that there is a meaningful relationship among the growing of operating earnings, growing of net profit, operating cash flows, investing cash flows with stock returns; but there is no meaningful relationship among the growing of trade sale, financing cash flows and stock return.

Khoshdel (2006), studied the relationship between free cash flows and operating earning with stock returns and growth of net market values of operating assets in Tehran Stock Exchange. The researcher tests the hypotheses via Pearson correlation and simple linear regression method. The study revealed that there is a positive meaningful relationship between operating earning with return on equity, return on assets, and growing of net market values in operating assets.

Watson (2005), examined the associated of various earning and cash flow measures of firm performance and stock returns. The researcher used simple and multiple regressions to analysis the data. The study revealed that cash flow and firm performance have a significant negative relationship. Thus a company, whose performance is acceptable according to managements and shareholders opinion, may not be acceptable in social aspect.
Framework for the Preparation and Presentation of Financial Statement

The objective of financial statement is to provide a fair presentation (information), financial performance (income statement) and the financial position (balance sheet) of an entity. This information should be useful for making economic decisions by the users of the financial statements, who cannot dictate the information they should be getting (Van 2009). Financial statements also show the result of Management’s stewardship of the resources entrusted to it. This information, along with other information in the notes to the financial statement, assist users of financial statements in predicting the entity’s future cashflows and, in particular, their timing and certainty. To meet this objective, financial statements provide information about an entity’s assets, liabilities, equity, income and expenses including gains and losses; contributions by and distributions to owners in their capacity as owners; and cashflows. Banks and other Financial Institution Act. Both (BOFIA, 1991) and Companies and Allied Matters Act (CAMA) Section 360 of 1990 required every entity to prepare its financial statements at the end of each accounting year. Stakeholders and users of financial statement will use this information for decision making. Section 7 of the International Financial Reporting Standard, (IFRS7) required the preparation of cash-flow statement by entities. The cash-flow statement is separate financial statement that provides entity. Cash-flow is also relevant for identifying:

- Movement in cash balances for the period
- Timing and certainty of cash-flows
- Ability of the entity to generate cash and cash equivalents and
- Prediction of future cash-flows (useful for valuation models).

Scope of the standard: All entities are required to present a cash flow statement that reports cash flows during the reporting period. Either the direct or the indirect method of reporting can be used. Cash and cash equivalents must be defined. Cash flows must be classified as follows;

- Operating activities
- Investing activities
- Financing activities

Key concepts:
Cash flows are inflows and outflows of cash and cash equivalents. Cash comprises of cash on hand, and demand deposit (net of bank overdrafts repayable on demand)
Cash equivalents are short-term. Highly liquid investment (such as short term debt securities), that readily convert to cash and that are subject to an insignificant risk of changes in value. Operating activities are principal revenue-producing activities and other activities that do not include investing or financing activities. Investing activities are acquisition and disposal of long term assets and other investments not included as cash-equivalent investments. Financing activities are activities that change the size and composition of the equity capital and borrowings.

Performance of the Nigerian Manufacturing Industry:
The Nigerian manufacturing industry is relatively small compared to its foreign counterparts; between 1970 and 1990 it contributed an average of 8 percent to the GDP. The sector as a whole has not grown remarkably over the years due to factors such as mismanagement of cash, neglect of the sector due to over dependence on crude oil, epidictic power supply, collapsing...
infrastructures, among others. It employs about 1 percent of labour force. Although the Nigerian Government maintains that the industry is the main instrument of rapid growth, structural change and self-sufficient, it had however unwillingly pursued policies which had impaired the performance of same industry.

Available data shows that the contribution of the industry to the GDP in 1994 stood at 7.21% but fell gradually to 6.08 percent in 2002 (Onwioduokit and Nwachukwu, 2008). The performance of the industry leaves much to be desired, but as this study progresses in establishing the relationship between cashflows and performance of the selected food and beverages companies which are sample of the manufacturing sector, the researcher hope to ascertain the extent of correlation between cash flow and financial performance; and to break away from the conventional. Balance sheet and income statement ratios; and to use cashflows ratios as better tools for the assessment of the financial performance of firms in the food and beverages sector in Nigeria.

**RESEARCH METHODOLOGY**

The data used for the study were collected from the Nigerian stock exchange for the period 2007-2011 (i.e. Annual report and Accounts of the companies under study). Six companies in the Food and Beverage sector of Nigeria were selected by the researchers based on availability of annual report and accounts in the Nigerian stock exchange (NSE), namely: Nestle Nig. Plc, Dangote Flour Mills Plc, Cadbury Nig. Plc, 7up Bottling Co. Plc., Flour Mills Nig. Plc. and UTC Nig. Plc.

**Variables of the study**

Corporate performance is the explained variable. It is measure by return on total assets (ROTA), which is defined as profits after tax divided by capital employed or total assets. Three independent variables were employed in the study.

1. operating cash flow (OPCF): This measures the Net Cash Flows from the operating activities
2. investing cash Flow (INVCF): This is defined as the Net Cash flow from investing activities
3. Financing Cash Flow (FCF): This measures the net cash flows from financing activities

**Model Specification**

We develop regression model of the following form to capture the interrelationships between cash flows and corporate performance.

\[ ROTA = F (OPCF, INVCF, FNCF) \]

To make equation easy for empirical verification, we transform it in a multiple linear regression equation.

\[ ROTA = b_0 + b_1 + OPCF + b_2 INVCF + FINCF \quad \text{......... (1)} \]

Where:
- \( b = \) Parameter to be estimated
- \( U = \) Error term
- \( ROTA = \) Return on total assets, an index for corporate
- \( OPCF = \) Operating cash flows
- \( INVCF = \) Investing cash flows
- \( FINCF = \) Financing cash flows
Evaluation Techniques
The multiple regression analysis was used for the data. The merit of multiple regressions is that it allows researchers to utilize more of the information available to estimate the dependent variable. It also possesses the unique qualities of un-biasness, consistency and efficiency. The statistics tested for include regression equation for the variables, coefficient of determination ($R^2$), T-Test, F-test and Durbin Watson (DW) Statistics. The statistics statistical computer software used to run the analysis.

Where: Coefficient of determination ($R^2$) Test = Measures the explanatory power of the independent variables on the dependent variables.
Students T-test = Measures the individual significance of the estimated independent variables. F-test = Test for the overall statistical significance of the models. It is used to generalize the hypothesis. Durbin Watson (DW) statistics test for auto-correction in the regression.

RESULTS AND DISCUSSIONS

Tables 1. Average cash flows for the past five years and return on total assets (ROTA) in six selected food and beverages companies for the period 2007 – 2011.

<table>
<thead>
<tr>
<th>Year</th>
<th>Dependent variable (corporate performance)</th>
<th>Independent OPCF</th>
<th>Variable INVCF</th>
<th>FINCF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ROTA (%)</td>
<td>N Billions</td>
<td>N Billions</td>
<td>N Billions</td>
</tr>
<tr>
<td>2007</td>
<td>2</td>
<td>6.995</td>
<td>(9.928)</td>
<td>0.220</td>
</tr>
<tr>
<td>2008</td>
<td>5</td>
<td>7.184</td>
<td>(4.793)</td>
<td>2.282</td>
</tr>
<tr>
<td>2009</td>
<td>9</td>
<td>15.348</td>
<td>(4.542)</td>
<td>2.819</td>
</tr>
<tr>
<td>2010</td>
<td>12</td>
<td>20.648</td>
<td>(2.593)</td>
<td>6.422</td>
</tr>
<tr>
<td>2011</td>
<td>15</td>
<td>21.858</td>
<td>(2.344)</td>
<td>8.474</td>
</tr>
</tbody>
</table>

Source: Annual Report and Accounts for the various companies under study for the year 2007 – 2011, collected from NSE.

Interpretation:
The table above depicts the average cash flows expressed in Billions of the companies selected for the study and their corporate performance which was measured by Return on total assets (ROTA) expressed in percentage for the period 2007 to 2011.

Table 2. Results of regression analysis on the variable (ROTA, OPCF, INVCF, FINCF) i.e. Analysis of the relationship between cash flow and corporate performance.
Dependent variable: ROTA (corporate performance).
### COEFFICIENTS

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized coefficients</th>
<th>Standard coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std Error</td>
</tr>
<tr>
<td>Constants</td>
<td>19.986</td>
<td>797</td>
</tr>
<tr>
<td>OPCF</td>
<td>75.783</td>
<td>5.152</td>
</tr>
<tr>
<td>INVCF</td>
<td>-.348</td>
<td>.255</td>
</tr>
<tr>
<td>FINCF</td>
<td>.563</td>
<td>.324</td>
</tr>
<tr>
<td>F – Value = 89.702</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F – Probability = 0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R² = .974</td>
<td></td>
<td></td>
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<tr>
<td>Adj. R² = 97.4%</td>
<td></td>
<td></td>
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<tr>
<td>DW = 1.752</td>
<td></td>
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</tbody>
</table>

Source: SPSS 19 for Windows

The coefficients of determination $R^2$ show that the explanatory variables explained approximately 97% of the relationship between cash flows and corporate performance.

Operating cash flows (OPCF) has statistically significant positive relationship with corporate performance. A unit increase in operating cash flows leads to 75.79 units increase in profits in the companies of the food and beverages sectors of Nigeria. This result confirms to prior empirical evidence that OPCF and (pare positively related cash Ashtiani, 2005). Investing cash flows (INCF): investing cash flows has a significant negative relationship with corporate performance in the food and beverages industries of Nigeria. This result does not conform to a prior empirical evidence that investing cash flows has a positive relationship with corporate performance (Ashtiani, 2005). Unit increase if investing cash flows will lead to -.348 unit decrease in profits of the firms (corporate performance) in the total food and beverage sector of Nigeria. Financing cash flows (FINCF): Financing cash flows has a positive and significant negative relationship with corporate performance (Thanh and Nguyen, 2013). A unit increase in financing cash flows will lead to .563 increases in profits of the firms in the food and beverages sector of Nigeria. But this requires a strong governance to maintain consistency in the increase of profit of the firm but not where the governance is weak the result will be adverse (Brush, et al 2000).

### CONCLUSION AND RECOMMENDATION

The study established that significant and positive relationship exists between cash flows and corporate performance in the food and beverages sector of Nigeria. The results of the study supports both theoretical and empirical evidence of prior studies that operating and financing cash flows impact positively on the profitability of corporate organizations in the food and beverages sector of Nigeria. Provided a strong governance policy is operational in the industry (Brush, et al 2000). Also, the researchers concluded that negative net cash flows generated from investment
activities associated weak corporate governance are capable of decreasing food and beverages industry performance. This findings support the prior studies of Ali, et al (2013) and Zhou, et al (2012).

From the findings of the research, the following recommendations were made:

The study suggests that Regulatory Authorities such as IFRS, CBN, FRCN, NDIC, SEC, NSE etc. Should encourage companies to set-up a result oriented cash flow system that will encourage the investing public to avail themselves of financial risk capable of jeopardizing their investment. More so, external auditors should be encouraged to use cash flows ratios in evaluating the performance of a company before forming an independent opinion on the financial statement. This will give detailed information on the financial performance of the company to enable investors make effective investment decisions: The study also suggests the implementation of compulsory cash flow policies such as investment policy, divided policy etc. in order to restore the confidence of Nigeria investors and creditors.

These might enhance both individuals and corporate performances in the food and beverages sector of Nigeria, thereby improving overall Nigerian economy.

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