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Imperative of corporate governance on industry's profitability: An empirical study of privatized cement industry in Nigeria

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Abstract. The study investigates the imperative of corporate governance on profitability of privatized cement industry in Nigeria. The variables studied were Rate of Returns as dependent variables and fourteen Corporate Governance proxies as independent variables. Data was collected from secondary sources, and the statistical tools employed in the Methodology were descriptive statistics and Pooled OLS regressions. The study aimed at bridging literature gap on studies that relate corporate governance and privatization policy in Nigeria. The results suggest that, no remarkable improvement of profitability post privatization due to challenges of exogenous factors such as macroeconomic environment instability and weak private sector. The industry witnessed changes in corporate governance such as adopting effective cost management and proactive business strategies, exposure to competition, withdrawal of Government subsidy and special grant post privatisation. Board Size and Workforce have positive and significant impact on Cement industry's profitability, while, State Ownership, Institutional Ownership, Minority ownership, Percentage of Executive Directors and Privatization with time have negative and significant impact on company's profitability. Conversely, Foreign Investors, Percentage of Non-Executive Directors and Percentage of Management Staff have positive and insignificant impact on the Cement industry's profitability. Thus, it will be pertinent to conclude that the result has accepted Alternative Hypothesis that corporate governance has significant impact on the Cement industry's performance (AROA), despite the challenges of microeconomic environment instability. The study recommends that, Government needs to stabilize macroeconomic environment and strengthen private sector. The Cement Industry needs to ensure right procedure of the selection of Non-Executive Directors, create incentive for foreign investor participation, ensure Payment of dividend, less government interference and accountability. Mechanisms such as efficient and independent audit committee, competent executive directors and professional management team need to be put in place to address the negative and insignificant impact of management staff on the industry.

Keywords. Corporate governance, Profitability, Privatization, Cement industry.

JEL. C01, C50, E10, E60, F02, F30, F41.

1. Introduction

Effective corporate governance enhances corporate performance via harmonisation of conflicting interests of stakeholders and stimulating balanced growth among corporate objectives. It is a strong and

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efficient mechanism for restraining expropriation and securing foreign and domestic finance to introduce new technologies as well as prowess workers' and managerial expertise at all levels (Masu-Gombe, 2015). Capitalist economies depend on the efficiency of their corporations which are largely determined by the way and manner the Board of Directors and the Management are discharging their stewardship responsibilities. The effectiveness with which they discharge their responsibilities in the contextual framework of transparency, integrity and accountability, in serving the modest interest of corporate stakeholders and its overall objectives, determine the level of investors' confidence and the security of the wealth invested in a corporation; which is the essence of any system of good corporate governance (Masu-Gombe, 2015). "Greater clarity to the respective responsibilities of directors, shareholders and auditors strengthen trust in the corporate system. Thus, corporate governance is the system by which companies are directed and controlled'' (Cadbury, 1992). Failure in corporate governance system in a country's corporations, undoubtedly, preludes into conflict that will affect firms' stewardship and performance that consequently have adverse spill over effect on the economy governance (Masu-Gombe, 2015).

1.1. Statement of the problem

Study of corporate governance related to pre and post privatisation is a recent phenomenon that gains little attention from academic circle and policy makers in Nigeria (Okeahalam, & Akinbode, 2003). Therefore, the study aimed at bridging the literature gap.

1.2. Research objectives

The study has broad and specific objective. The broad objective is to study the imperative of corporate governance on profitability of privatized cement industry. The specific objectives are; To ascertain the challenges of cement industry pre and post privatization. And to examine the significance of corporate governance on the profitability of cement industry.

1.3. Significance of the Study

Nigerian universities offer courses on corporate governance at postgraduate and undergraduate levels; similarly, professional institutions and some supervisory agencies have research wings dedicated to the subject matter in Nigeria. This implied that the findings will contribute to; knowledge, academics, policy makers, cement industry and the economic environments of the country at large.

1.4. Scope and limitations

The scope of research focused on imperatives of corporate governance on profitability of cement industry in Nigeria for the period 1991 – 2011. However, the limitation of the study is the used of secondary data that is subject to companies' internal manipulations, which is well known by the researchers. In this regard, the researcher used the certified data from Annual Reports of cement companies identified as study sample in the cement industry of Nigeria and BPE Reports respectively. Notably the paper is extracted from my Ph.D Thesis.

The paper is organized in the following subheadings; Concept of Corporate Governance, Concept of Corporate Performance, Concept of profitability, Theoretical framework, Empirical Review, Methodology, Inferential Statistics Result, Conclusion and Recommendations.

2. Literature review and theoretical framework

At this point, related literature is reviewed and discussed on concepts, empirical evidences and theories.

2.1. Concept of corporate governance

Boubakri, *et al*., (1999), Turnball (1997) and Dyck (2001) view corporate governance as institutional framework that influences the integrity of transactions, resource allocations, returns on investments, and at the same time, determines the control and direction of the corporation's delegated decision making for the production of goods and services in the best interest of the corporation's owners. It encompasses all set of processes, customs, policies, laws and institutions that ensure credible flow of information, accountability and transparency with a view to achieving long term strategic goals of stakeholders (Wikipedia, 2010). Furthermore, Okeahalam & Akinbode (2003) assert that corporate governance comprises the establishment of appropriate legal, economic and institutional environment that permits corporations to operate as entities for promoting shareholders value, maximising human centred development and discharging responsibilities to stakeholders, environment and the society in general.

In line with these conceptual views, Salacuse & Braker (2002), La Porta, *et al*., (2002) and others, define corporate governance as a system of rules and regulations which determine the control and direction of the corporation as well as define relationship among the corporate primary participants (Salacuse & Braker, 2002). It is a set of mechanisms through which outside investors protect themselves against the expropriation of the insiders (La Porta, *et al*, 2002). Thus, expropriation means; direct theft, selling firm security below market price to management staff, mostly, in firms that management controlled. And it also means investor's dilution, diversion of corporate opportunities, installing incompetent family members on managerial position and wasteful project (Salacuse, & Braker, 2002). O'Donovan, as cited by Wikipedia (2010) defines corporate governance as an internal system encompassing policies, processes and people which serve the needs of shareholders and other stakeholders by directing and controlling management activities with good business savvy, objectivity, accountability and integrity.

In a nutshell, corporate governance is a systematic social relation among corporate participants, guided by constitutional provisions, business ethics, and corporate internal regulations, aimed at protecting the rights and privileges of principals, obligation of agents and other stakeholders via incentives, transparency and accountability that will enable the corporation to achieve long-term objectives of operational and financial efficiencies plus excellent return on investment that will uplift firm value (Masu-Gombe 2015). In this regards, financial efficiency means profitability.

2.2. Concept of profitability

Profitability is the ability of management to utilize company assets to make profit. It shows how management can efficiently use all resources available in the market to generate returns on investment. According to Harward & Upton (1961), ''profitability is the 'the ability of a given investment to earn a return from its use." However, the term Profitability' is not synonymous to the term 'Efficiency'. Profitability is an index of efficiency; and is regarded as a measure of efficiency and management guide to greater efficiency. Profitability Ratio is a financial performance measure that reveals how corporate governance is managing corporate resources profitably (Ainworth, *et al*., 1997). In another word, it is an indicator of how profitable a company is relative to its total assets. It gives an idea as to how efficient management was at using its assets to generate earnings. The ratio estimates performance from a backward-looking perspective and reflects what the management has accomplished (Dhamija, 2010). According to Kento (2019) profitability ratio is a class of financial metrics that is used to assess a business's ability to generate earnings relative to its revenue, operating costs, balance sheet assets, and shareholders' equity over time, using data from a specific point in time.

Kento (2019) postulates the importance of profitability ratios to corporate governance. He argues that profitability ratios reveals how well management used corporate assets to generate profit and value for shareholders, provide historical information for comparing past and present performance and performance of other companies in the industry. He further states that, having a higher profitability value relative to a competitor's ratio or previous performance means the company is doing well. He divided Profitability Ratio into two categories: Margin Ratios and Return ratios. Margin ratios give insight on ability of company to turn sales into profit. Profit Margins are used to measure a company's profitability at various cost levels, including gross margin, operating margin, pretax margin, and net profit margin. The margins shrink as layers of additional costs are taken into consideration, such as the cost of goods sold (COGS), operating and non-operating expenses, and taxes paid. Gross margin measures how much a company can mark up sales above COGS. Operating margin is the percentage of sales left after covering additional operating expenses. The pretax margin shows a company's profitability after further accounting for non-operating expenses. Net profit margin concerns a company's ability to generate earnings after taxes.

Return ratios examine how well a company generates returns for its shareholders. In this regards, profitability is assess relative to costs and expenses, and it is analyzing in comparison to assets, to see how effective a company is in deploying assets to generate sales and eventually profits. The term return in assets ratio refers to net profit or net income, that means is the amount of earnings from sales after all costs, expenses, and taxes (Kento, 2019).Return on Equity is a ratio that concerns a company's equity holders because it measures their ability to earn a return on their equity investments. Larger assets base increases Return on Equity dramatically without any equity addition and result into higher benefit (Kento, 2019).

Based on kento's perspectives and that of Harward & Upton above, we can understand why corporate governance scholars chose to use return on asset as proxy of performance not profit Margin Ratio. Kento categorized profitability ratio in two broader terms i.e Margin Ratios and Return Ratios, in this regards, Kento viewed Return on Asset as performance proxy that align shareholders interest with their investment because is centered on how management used assets sufficiently to generate returns on investment or net profit, while Margin Ration align the interest of Management with Investment because it focused on the ability of management to turn sales into profit. It simply talks about gross earnings or profit that has less meaning to investors (Masu-Gombe, 2020). In addition to that, Harward & Upton (1961) view profitability ratio, particularly, return on asset as index of efficiency. This conformed to the central themes of corporate governance; protection of stakeholder's interest, most especially the shareholders and ensuring efficient management of firm resources operationally. The second assertion is that, their analysis revealed scholars agreement on profitability as financial measure that enable corporate stakeholders to assess investment viability as well as management operational efficacy and accountability. Thirdly, their postulations justify our choice of shareholders theory as get way to our research (Masu-Gombe 2020).

2.3. Emprical review

Al Homaidi, *et al.,* (2019) study the impact of corporate governance on Return on Assets (ROA), Net Interest Margin (NIM) and Earning Per Share (EPS). Result suggest that; board size has positive and significant impact on Return On Assets and Earning Per Share, however, has negative and insignificant impact on Net Interest Margin, board diligence has positive and significant impact on Return on Assets, Net Interest Margin and Earning Per Share, audit committee size has positive and significant impact Return on Assets and has negative and insignificant impact on Net Interest Margin and Earning Per Share. Institutional ownership has positive and significant impact Return on Assets and Net Interest Margin but it has negative and insignificant impact on Earnings Per Share. board composition has negative and insignificant impact on Return on Assets while has positive and significant impact on Net Interest Margin and Earning Per Share, audit committee composition has negative and insignificant impact on Return on

Assets, however, has positive and significant impact on Net Interest Margin and Earning Per Share, audit committee diligence has negative and insignificant impact on Net Interest Margin and EPS while positive and significant impact Return on Assets and company age has negative and insignificant impact on Return on Assets and has positive and significant impact Earnings Per Share. Size of the company has positive and significant impact Net Interest Margin

Yameen, Farhan, & Tabash (2019) Find that board directors' size and audit committee's size negatively impact the performance of Indian hotels, while board directors' composition and diligence, the audit committee's composition and diligence and foreign ownership positively affect the performance of Indian hotels measured by accounting proxies. Results also reveal that board directors' size, audit committee's size, and foreign ownership positively impact the Indian hotels' performance measured by marketing proxies, whereas board directors' composition; board directors' diligence; audit committee's composition; and audit committee's diligence have a negative impact on the performance of Indian hotels.

Aljifri & Moustafa (2007) conducted an empirical study on the impact of corporate governance mechanism on the performance of UAE's firms and they found that board size has impacted on firms' performance. Similarly, Agbaeze, Ogosi, & Chinedu (2018) find that, there is a positive correlation between profitability, number of employees and board size of Nigerian banks. The result also reveals that board size has positive and significant impact on profitability of Nigerian banks. The same thing found by Uchenna1, *et al.*, (2018) on Nigerian banking sector.

Yousef (2016) finds that corporate governance variables have positive and significant impact on return on assets and return on equity on all listed Jordanian companies' together and industrial sector. However, price on earnings ratio is not affected. In finance and services sectors, is onlyReturn on assets was affected by corporate governance variables. Al Homaidi, *et al.*, (2019) find that board size, board diligence, audit committee size, and institutional ownership have a significant impact on ROA, while board composition, audit committee composition, audit committee diligence and company age have an insignificant effect on ROA. Separation of power between CEO and board chairmanship was well pronounced in UK, Germany and Netherlands but less pronounced in US and Nigeria. Even though it had negative effects on firms' performance, nevertheless, their tenure has positive impact on profitability (Fodio, 2006; Coleman 2007; Ndama, 2010). Similarly, D'Souza, *et al*., (2006) finds that profitability has significant relationship with state ownership and restructuring, but negative relationship with employment. Real sales had positive relationship with restructuring and output.

Birdsall & Nellis, (2002) find that privatization affects financial and operational performance where by significantly increasing firm profitability, real sales, operating efficiency, capital expenditure, investment and dividend policies, output as well as decrease leverage. Privatized firm's corporate governance is more efficient than state-owned firm (Megginson, *et* *al*., 2002), because they improve coverage, service quality and reliability as well as prices decline (Delfino & Casarin, 2001; Paredes, 2001; Arocena, 2001; Barjar & Uguiola, 2002). Muogbo (2013) finds that corporate governance has positive and significant relationship with privatization in terms of setting up sound corporate objectives and in maximizing shareholders wealth. This indicates that investment in privatized firms will be more profitable than investment in firms with government presence. These empirical reviews impacted positively on the paper most especially on the choice of study variables and methodology for the research.

2.4. Theoretical framework

Shareholders model of corporate governance

A corporation is best able to create the goods and services needs of the society if it focused on its primary function of maximising gains to shareholders. To this ends, shareholders exercise control over the operational and financial decisions, managers have judiciary duty to harness both human and material resources to serve the best interest of the shareholders and the overall objective of the firm is focused on maximising share holders wealth (Iqbal, & Mirakhor, 2004). In this regard, the corporate governance structure focuses on investor-manager contract relation, not otherwise. Other corporate stakeholders like employees, suppliers, customers, creditors and community have no right over the wealth accumulated by the firm or to participate in the corporate decision making of the corporation.

To justify the arguments, Arrow-Debreu model and fundamental theorem postulate that if firms' objective is to maximise the wealth of their shareholders and individuals to pursue their own interest as embodied in the philosophy of ''*invisible hand*'' the allocation is Pareto efficient. To buttress this point, fundamental theorem states that any Pareto efficient allocation can be implemented as competitive equilibrium given lump sum of taxes. In view of these assertions, the role of firm in a society is precisely to create wealth for the shareholders as embodied in the legal framework. For this reasons corporate governance pursuing the interest of shareholders is what is required for the efficient use of resources.

Conversely, Iqbal & Mirakhor (2004) and Allen & Gale (2002), argue that the firm claimant goes beyond shareholders and bondholders alone; it must include explicit and implicit contractual interaction. This is because, all corporate constituencies provide asset in return for some gains. Contracts resulted from bargaining by these constituencies over the term of their compensations from post contractual expropriations. All stakeholders are regarded as contractors with firm, with their right determined through bargaining. So, limiting firm priorities to investor- manager contract is mischievous considering the human capital invested by the employee, investment in building relationship and forgone alternative opportunities by the suppliers and customers as well as the community that provides legal framework and business environment for the firm's operation.

The model is silent on changes in corporate governance due to economic reforms such as privatisation that may arise. And it is static in a sense that it ignored externalities discovered to be good mechanisms for corporate control in recent time apart from financers. Nevertheless, the model will play a great role in identifying variables that will be useful in assessing the new objective of privatized firms in Nigeria (Masu-Gombe, 2015).

3. Methodology

The study used Trend Analysis and Pooled Ordinary Least Square (POLS) as statistical tools. Trend Analysis is used to serve objectives 1while pooled ordinary least square is employed to serve objective 2. Secondary data was used from the industry's annual reports, and to enable us have a balanced data and accurate assessment, equal periods were taken pre and post privatization, spanning from 1991 to 2011. In the regression analysis, profitability ratio is used as dependent variable and fourteen corporate governance proxies as independent variables. Thus, profitability Ratio is calculated by dividing a company's annual earnings by its total assets, ROA is displayed as a percentage. Sometimes this is referred to as "return on investment" (Dhamija, 2010). One important thing to be noted here, is that the research, adopted methodology used in research conducted by Dhamija (2010) on Nifty companies of India. To enable the model suit the requirement of this academic investigation, some improvements were made. Dhamija's research considered Nifty Companies without secluding privatized firms among them, still the statistical tools employed and the variable used appeared to be comprehensive as well as relevant to our study. Besides that, most of the corporate governance scholars' works reviewed in this research used similar or the same empirical models, even though with fewer variables. The researcher, therefore, extended the applicability of the models on Nigerian cement companies and established their validity. Even though, throughout the literature reviewed in this work no single researcher used performance trend analysis to identify factors that are affecting the efficiency of corporate governance as we did in this research.

ROA = <u>Net income</u> = <u>EBIT</u>
Total Assets FA+CA

$$ROAit = \beta_0 + \beta_{01}ATMVS_{1it} + \beta_{02}ASTOWN_{2it} + \beta_{03}AINST_{3it} + \beta_{04}AMINOWN_{4it} + \beta_{05}AFOREI_{5it} + \beta_{06}ABSIZE_{6it}\ \beta_{07}APED_{7it} + \beta_{08}APNED_{8it} + \beta_{09}ADUAL_{9it} + \beta_{010}ACACNE_{10it} + \beta_{011}AWF_{11it} + \beta_{012}APMS_{12it} + \beta_{13}\,APNMS_{13it} + \beta_{14}APRIV_{14it} + u_{it}$$

Independent variable

a. ATMVS: market value of the company shares measured market capitalization of the companies. It reveals the level of investors assessment on the quality of the company's corporate governance which persuaded them to patronize the ownership of the companies. The expect coefficient is positive.

b. ASTOWN: Measures the proportion of state ownership in the firms. The larger the proportion, the higher is the undue government interference. This implies that restructuring will be difficult in the firms. The coefficient is expected to be negative.

c. AINST: measures the proportion of large institutional investors. The higher the proportion, the greater is the monitoring role of institutional investors. It also implies that managers of companies would be under pressure to perform to the expectations of institutional investors. The coefficient is expected to be positive.

d. AMINOWN: Measures the proportion of minority shareholders in the firms. The higher the proportion, the higher the expropriation due monitoring cost. This implies that management will connive with concentrated shareholders to promote their personal interests as against the minority owners. The coefficient is expected to be negative.

e. AFOREI: Measures the proportion of foreign investment in the corporations. The higher the proportion, the greater are the possibilities of infusing new talents, new technologies and restructuring. This implies that operational and financial reorganization will take place. The coefficient is expected to be positive.

f. ABSIZE: the total number of directors in the board of a company. Cohesiveness of the Board members and having diverse expertise and experience may enhance the financial performance. Unwieldy group on the other hand may be detrimental to financial performance.

g. APED the percentage of Executive Directors on the board of directors. It is defined as the number of Executive Directors divided by the total number of directors on the board of the company. The coefficient's expected sign is positive, i.e., the lower the proportion, the more independent is the board in making decisions..

h. APENED: the percentage of independent directors on the board of directors. It is defined as the number of independent directors divided by the total number of directors on the board of the company. The coefficient's expected sign is positive, i.e., the higher the proportion, the more independent is the board in making decisions.

i. DUAL: a binary variable representing CEOs who also double as the chairmen of the board of directors. This variable takes the value of one if the CEO/Managing Director performs the dual role; otherwise it takes a value of zero. The coefficient's expected sign is negative. This is because the effectiveness of the board as an internal governance device will be perceived to have been compromised by the roles not being separated. On the other hand, a unity of command structure can motivate the CEO to strive for excellent performance. If this is the case, the coefficient's sign is expected to be positive.

j. ACACNE: a binary variable representing the Chairman of the Audit Committee. If the Chairman of the Audit Committee is a nonexecutive director, the variable takes the value of one; otherwise, this variable takes a value of zero. This serves to test the degree of independence of the audit committee. An independent chairman is expected to contribute to a more rigorous regime of monitoring and therefore improves performance of the company.

k. AWF: Work force measures the total number of company employees. It reveals the impact of privatization on work force. The coefficient expected sign is negative. Higher size means higher cost of corporate governance.

l. APMS: Measures the percentage of management staff that are directly involved in the corporate decision making and policy implementation in the company. It is defined as the number of management staff divided by the total number of the workforce of the company. The coefficient's expected sign is positive.

m. APNMS; measures the total number of company employees that are not involved in the corporate governance. It is defined as the number of non management staff divided by the total number of the workforce of the company. It reveals the impact of privatization on work force. The coefficient expected sign is negative. The higher the size, the higher the cost of corporate governance.

n. PRIVt: Privatization with time which is dummy variable.

The study included the above variables of corporate governance, which have been shown to be significant for the firm performance by the literature survey. This study measured the individual effect of corporate governance variable on the firm's performance.

4. Results interpretation and analysis

4.1. Factors affecting corporate governance efficiency on the performance of cement industry

Under this subheading, Cement industry performance trend analysis results were interpreted and the factors influencing corporate governance efficacy on the trends of the industry's performance were analyzed accordingly. In interpreting the result of trend analysis certified information of chairmen's statements, auditors' reports and directors' reports issued in the annual reports of the industry, within the observational periods were used judiciously. The interpretation and analysis were, adherently, based on impact of corporate governance decision making on the performance indicators. The Table 1. below presents the results accordingly.

Table 1. *Distribution of Performance Trend Analysis Results of Cement Industry*

Observation	Profitability Ratio %
1991	0.001%
1992	0.001%
1993	0.001%
1994	0.001%
1995	0.001%
1996	0.001%
1997	0.001%
1998	0.001%
1999	0.001%
2000	-10%
2001	-0.5%
2002	-100%
2003	-20%
2004	0.001%
2005	0.001%
2006	0.001%
2007	0%
2008	0.001%
2009	0.001%
2010	0.001%
2011	0.001%

Source: Author's computations

The estimated aggregate demand for cement in Nigeria was 8 million tons in 1991, while the total capacity for all the industry was 5 million tones. However, the Industry produced 3.5 million tons in 1991 as against 4.1 million tons in 1990. The capacity under-utilization emanated mostly from exogenous factors that have direct effect on cost of production and aggregate demand for cement products, such as devaluation of the naira, energy sector crises, political instability, importation of spare parts, banks strike as well as general economic activities. Furthermore, reduction of global oil prices from $23.284 to $18.418, again, negatively affected government revenue which resulted in curtailing government expenditure and slowdown in general macroeconomic activities of the country. Consequently, the aforementioned factors adversely impacted on Cement Industry ion Nigeria. In addition, high cost of funds, inadequate credit to private sector and social responsibilities observed by the industry, adversely affected profitability ratio as revealed by results of table 4.9.1 that Managements' Efficiency in assets utilization to generate returns (profitability) was 0.001% from 1991 up to 1999. In 1999, the Federal Government of Nigeria introduced stabilization policies that controlled interest rate and foreign exchange, banned cement importation and reduced import duty on manufacturing equipment to zero, all in an effort to ginger the economic activities in the country. Above all, the industry's firms were shortlisted among the companies to be privatized in the same year. These measures, eventually improved the productivity of the industry. In spite of these improvements, the Industry's Profitability was stagnant at 0.001% in 1999, however, declined to -10% in 2000.

Surprisingly, the results of post-privatization periods demonstrated the same pattern of performance trends with pre-privatization periods. The result revealed that corporate governance efficiency in assets utilization to generate returns to the shareholders was determined largely by same macroeconomic factors that influenced the activities of the company prior to privatization. Notably, 2000 and 2001 were transition periods of Cement industry from public ownership to private ownership, notwithstanding the performance trend of the industry was interpreted as follows: Profitability ratio was -0.5% in 2001 which means the industry was operating at a loss due to exposure to competition, withdrawal of subsidy and special grant.

The dawn of industry privatization commenced in 2002. As expected, the industry entered into a Technical Operating Agreement with the new foreign partners. This culminated into structural adjustments that impacted positively on the quality of corporate governance and industry overall performance. The adjustments were more decentralized initiatives and better decision process such as; a true participation in decision making but not necessarily consensus, management leading by example and proactive employee contribution to group success. These new measures were complemented with an extensive program of reorganization such as review of staffing, working practice, training, recruitment and new remuneration package arrangement to harmonize with global standard and motivate employees' commitment and efficiency. These factors played a great role in improving the quality of the industry's corporate governance and overall performance. In the same year, the company's corporate governance approved voluntary retirement of some permanent staff, paid their gratuity and consultants' fees that conducted the disengagement exercise. Despite these developments, the macroeconomic environment was not favorable. The demand for cement was 5.5% lower than 2001 because States and Federal Governments halted all capital project that require cement and diverted public funds into financing election campaigns and programs that will be observed in the 2003. However, these measures and factors created temporary distortions that affected the industry's performance adversely. Consequently, profitability declined to -10%,

From early 2003 down to 2005, the Nigerian government realized handsome foreign earnings from the windfall of sales of crude oil which enabled the government to embark on capital projects that stimulated the demand for the industry's products. In the same period, government introduced reform policies that stabilized the Naira, encouraged the cement industry to embark on excess production to meet domestic demand and commence exportation of cement as producer nation. Besides that, some firms in the industry created three new sections to improve surveillance and daily operational efficiency, namely; sustainable development, logistics and strategy sections. To withstand the rigour of competitions, the industry adopted effective cost management and proactive business strategies. Yet, Performance trend analysis results of Table 1 reveals that corporate governance efficiency to utilize the firms' assets to generate earnings had significantly deteriorated in 2003 to -20%. The situation improved in 2004 where the profitability skyrocketed to 80%. However, it suddenly declined to 0.001% in 2005 and 2006 respectively.

Nigeria is accustomed to strangulating economic activities on the eve of every national election and 2007 was not an exception. Therefore, the macroeconomic environment was not favorable to the industry. Above all, for political reasons that led Federal Government to issue licenses for importation of cement without embarking on any fiscal policy to create matching demand in the economy, erratic power supply coupled with shortage of LPFO supply led to fall in domestic demand and high cost of production. These factors led decline in the industry's profitability to 0%. Fortunately, in 2008 Cement industry's corporate governance took advantage of Federal Government desire to accomplish power project and increased production to match the demand of the project. Consequently, profitability rose to 0.001% and remain constant up to 2011. However, in 2009, the domestic economy was seriously affected with global financial crisis as well as introduction of deregulation in oil sector inflicted high cost of production on the industry. Which when taken together resulted in maintaining profitability at 0.001% from 2009 down to 2011.

4.2. Inferentail statistics results

Null Hypothesis: Corporate governance does not have significant impact on Cement industry's performance (profitability Ratio).

Alternative Hypothesis: Corporate governance has significant impact on Cement industry performance (profitability).

Table 2. *Distribution of Regression Results of Profitability Ratio on the Set of Independent Variables of Cement Industry*

Independent variables	Coefficient	Significance
1 (CONST)	838.279	0.005
ATMVS	-3.979E-10	0.582
ASTOWN	-19.752	0.00
AINST	-6.418	0.011
AMINOWN	-11.244	0.001
AFROEI	1.534	0.844
ABSIZE	11.097	0.099
APED	-5.219	0.30
APNED	9.492E-6	0.999
AWF	0.282	0.007
APMS	68.021	0.149
APRIVt	-637.185	0.069
R	0.904	
R2	0.817	
Ajd R2	0.593	
F stat	3.654	0.031

Source: Author's computations

The profitability ratio result shows that management's efficiency in assets utilization to generate returns (dependent variable) was associated with company corporate governance (independent variable) to the tune of R= 90.4%. This implies that there is a strong relationship between Return on Assets and corporate governance decisions. Similarly, R^2 result reveals that about 81.7% variation of return on asset was explained by the corporate governance performance while the result of Adjusted R^2 discloses that corporate governance proxies jointly accounted for 59.3% variation in Return on Assets (AROA).

The calculated F-statistics is 3.654 and the estimated significant value is 0.031. Conducting the surrogate test at 1% statistical significance the model is strong in explaining the variation in Cement industry's performance (profitability Ratio). In view of that it is concluded that the model has a good fit.

The constant value of 838.279 was the average value of Return on Assets (AROA), in the absence of corporate governance variables. Holding other variables constant, the result suggests that the coefficient of ATMVS is -3979E-10 and estimated significant value is 0.582. This means, a unit increase in ATMVS will lead to -3979E-10 decrease of Cement industry's performance (profitability). Actually, the expected coefficient was positive, because investors used to patronize companies' shares based on their assessment of profitability trend of the Industry. However, the result contradicted such expectations; this may not be unconnected with the fact that the value of company shares at the secondary market has no direct impact, in any way, in enhancing the company's operational strategies, demand for or price of cement that consequently enhances corporate earnings. One fascinating thing to be noted here is that the p-value 0.582 establishes that ATMVS has no significant impact on the company's profitability. In view of that it can be concluded that ATMVS has a negative and insignificant impact on Cement industry profitability.

The result discloses that the coefficient of ASTOWN is -19.752, and the estimated significant value is 0.000. This means, a unit increase of percentage of state ownership will leads to -912.973 decreases in Cement industry's performance (profitability). However, the coefficient defies the expected coefficient of the study, which signifies that privatization of state ownership promotes corporate governance inefficiency by appointing incompetent people to managerial positions and board membership based on personal relationship and political interest (Okaehalam *et al* 2003). Even though the p-value 0.000 asserts that it has significant impact on the company's performance. Thus, average state ownership has negative and significant impact on cement industry performance (ROA)

Furthermore, the coefficient of the percentage of institutional ownership (AINST) is -6.418 and the estimated significant value is 0.001. This indicates that a unit increase in AINST will lead to-6.418 decrease in Cement industry's performance which defies the expected positive coefficient of the study that viewed institutional ownership as a positive development in corporate governance of the company. On the contrary, conducting surrogate test at 1% statistical significance, AINST has a significant impact on the Cement industry's performance. Thus, AINST has negative and significant impact on the Cement industry's performance.

Similarly, the coefficient of minority ownership (AMINOWN) is -11.244 and the estimated significant value is 0.001. In effect, a unit increase in AMINOWN will result to -11.244 decreases in profitability ratio (ROA). The negative coefficient conformed with the expected negative coefficient of the study that viewed any unit increase in AMINOWN will result into paving illegal ways for mismanagement of company's resource by the management team and easy ways of manipulating corporate decision making to favour the illegitimate interest of the concentrated shareholders to the detriment of the other stakeholders. Furthermore, the P-value of MINOWN 0.001 is signifying that minority ownership has a significant impact on the company's profitability in conducting surrogate test at 1% statistical significance. Thus minority ownership has negative and significant impact on Cement industry's performance (Profitability Ratio).

The AFOREI coefficient is 1.534 and the estimated significant value is 0.844. The coefficient of the result is consistent with the coefficient of the study which discloses that foreign ownership will tie privatized firms to capital market and foreign investment, improve information disclosure and accountability, constrain national government expropriation, and increase liquidity (Dyck, 2000). The p-value concludes that foreign ownership has positive and insignificant impact on company's performance.

The coefficient of board size is 11.097 and the estimated significant value is 0.099. The coefficient value is suggesting that a unit increase in board size (ABSIZE) will bring about 11.097 increases in Return on Assets (ROA). This complied with the expected positive coefficient value of the study, believing that an increase in board membership with right people enhances board efficiency in decision making and checkmate management performance. However, this result is confirmed such assumption. The p-value of 0.099 is revealing that ABSIZE has significant impact on the company's performance (profitability) in conducting surrogate test at 10% statistical significance. Thus board size has positive and significant impact on Cement industry's performance (profitability).

The result suggests that APED is -5.219 and the estimated significant value is 0.030. The negative coefficient of the percentage of executive directors conformed to the expected negative coefficient of the study which opines that the lower the percentage of the executive director the higher the board independence. Besides that, the p-value also indicates that APED has significant impact on the Cement industry's performance in conducting surrogate test at 5% statistical significance. Hence, APED has a negative and significant impact on Cement industry's performance.

The result discloses that the coefficient value of percentage of nonexecutive directors is 9.492E-6 and the estimated significant value is 0.999. Impliedly, a unit increase in percentage of non-executive directors (APNED) will lead to 9.492E-6 increase in Return on Assets. The positive coefficient of the result is consistent with the expected positive coefficient of the study, which opines that an increase in percentage of non-executive directors will enhance board independence. This means that their role in serving audit committee and other statutory committees will promote efficiency and will be a very strong positive signal for accountability and reliability in the financial information issued to all stakeholders of the company. The p-value reveals that the APNED has positive and insignificant impact on Cement industry's performance (profitability).

Similar coefficient with different p-value was obtained in workforce result in relation to ROA. The coefficient is 0.282 and the estimated significant value is 0.007. The result states that a unit increases in WF will leads to 6.000E-5 increase in Return on Assets (ROA). Unfortunately the coefficient of this result is quite contrary to the expected negative coefficient of the study, which suggests that an increase in WF will lead to decrease in profitability. However, the significant test result reveals that the workforce has significant impact on profitability. Thus workforce has positive and significant impact on Cement industry's performance (profitability

The coefficient of Average Percentage of Management Staff is 68.021 and the estimated significant value is 0.149. The result expresses that a unit increase of APMS will lead to 68.021 increases in Cement industry's performance. The coefficient is consistent with the expected positive coefficient of the study which postulates that percentage of management staff measures the number of staff that is directly involved in corporate decision making, policy formulation and implementation. This signifies harmony between the decisions made by the board and management operational activities. However, the p-value 0.149 reveals that the APMS has no significant impact on the Cement industry's performance. Therefore, APMS has positive and insignificant impact on Cement industry's performance.

Finally, -637.185 was the difference in Return on Assets (AROA) post-privatization compared to pre-privatization and the estimated significant value is 0.069. The post-privatization negative coefficient is inconsistent with expected positive coefficient of the study, which argues that privatization will promote efficient corporate governance that will impact positively on Cement industry's performance (AROA). The result conforms to what was obtained in trend analysis result that pre-privatization has higher profitability than post-privatization. This is because, prior to privatization the company was exerting monopoly power on price, enjoy subsidy, no competition and merging between cost of production and market price (profit) was favourable. Nonetheless, in conducting the surrogate test at 10% statistical significance, the p-value of 0.069 reveals that privatization has significant impact on the company's performance (AROA). Therefore, privatization has negative and significant impact on Cement industry's performance (AROA).

4.3. Summary of the findings

That, no remarkable improvement of profitability post privatization due to challenges of exogenous factors such as macroeconomic environment instability and weak private sector which culminated in to capacity under-utilization in Cement Industry of Nigeria. The industry witnessed changes in corporate governance such as adopting effective cost management and proactive business strategies to mitigate the adverse effect of agency problem, exposure to competition, withdrawal of Government subsidy and special grant.

That Board size and workforce have positive and significant impact on Cement industry's profitability. State ownership, Institutional ownership, Minority ownership, Percentage of Executive Directors and privatization have negative and significant impact on cement industry's profitability. Percentage of Management Staff and Percentage of Non-Executive Directors have positive and insignificant impact on Cement industry's profitability. Total Market Value of Shares andForeign ownership has a negative and insignificant impact on Cement industry's profitability.

5. Conclusion

Based on the above findings, the study concludes that, corporate governance has significant impact on cement industry performance, its quality improved remarkably, however, macroeconomic environment instability militated against the industry's profitability pre and post privatization. In view of that, the result rejected the Null Hypothesis, that corporate governance does not have significant impact on Cement industry's performance in Nigeria. This finding confirmed with most of the previous findings. What distinguishes this study from most of the previous ones conducted on corporate governance in relation to privatization in Nigeria and otherwise, that I reviewed, none has identified factors that militated against corporate governance performance on profitability pre and post privatisation.

6. Recommendations

In view of the above conclusion the following recommendation were drawn.

i. Government needs to stabilize macroeconomic environment as well as strengthen private sector in order to mitigate capacity underutilization of cement industry in Nigeria.

ii. Regarding the Non-Executive Directors, the Cement Industry needs to ensure right procedure of selection, skill-mix that reflected the range of competence needed in the industry a formal training at the company's cost, to enable them discharge their duty effectively and bring an independent judgment to bear on issues of strategy, performance, resources, including key appointments, and standards of conduct. They also have to be independent of management and free from any business or other relationship which could materially interfere with the exercise of their independent judgment, apart from their fees and shareholding.

iii. Furthermore, the industry needs to create incentive for foreign investor to participate fully, where necessary, in both decision and operational activities of the industry.

iv. The industry needs to ensure Payment of dividend, less government interference and accountability to enable market value of shares to impact positively on the industry.

v. Mechanisms such as efficient and independent audit committee, competent executive directors and professional management team need to be put in place to address the negative and insignificant impact of management staff on the industry.

7. Policy implications

The policy implication of the study is that, government needs to introduce macroeconomic stabilization measures and private sector driven economic policies to improve effective demand of cement products of the industry. Also, the industry needs to put in place internal strategies that will create international market opportunities, sophisticated security measures, cheap inputs, prudent financial and inventories management that will improve profitability post privatization. A synergy need be established on corporate governance, privatization and the challenges of macroeconomic environment in developing economies.

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