Association between Firm Size and Firm Effects and the Extent of Compliance with Accounting Standards Disclosures by Government Business Enterprises in Nigeria

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Abstract
All over the world Accounting Standards are issued in order to provide the benchmark for preparation of financial statements. However, recent findings show that accounting is used to misrepresent earnings and assets in financial reports. As guiding rules, accounting standards are expected to influence disclosures in financial statements preparation. However, recent failures of businesses resulting from inadequate compliance with accounting standards disclosure requirements raises fundamental questions about the ability of accounting standards to enforce compliance with its principles. Similarly, the Accountant General for the Federation’s reports on audited financial statements of commercialized Federal Government Enterprises (CFGE) in Nigeria over the decades have shown that financial statements have not fully comply with accounting standards requirements. Studies have also suggested in the past that disclosures are influenced by firm characteristics. However, the findings of prior studies are divergent, varying from study to study, industry to industry and country to country. To verify the reports of the AGF and prior studies’ findings, this study determined the extent of compliance with accounting standards disclosure requirements by CFGE and also investigated the influence of firm size and firm effects on disclosure practices of 18 filtered government enterprises in Nigeria. The theoretical framework of this study linking disclosure practices to corporate attributes of commercialized enterprises was based on four theories—agency, stewardship, stakeholders, and resource dependence theories. The study used contents analysis methods for data gathering and employed Descriptive Statistics and Multiple Regression Analysis for data analysis. Based on the analysis conducted, the findings showed that firm size has significant influence on extent of compliance with accounting standards disclosure requirements. In addition the findings showed that majority of CFGE’s nature influences compliance with accounting standards disclosures. The findings also showed that only two enterprises that had disclosure indices above 91% (96% and 95%), the remaining 16 enterprises’ disclosure indices were low, compared with the cross-country disclosure index benchmark of 91% for emerging economies like Nigeria. The findings indicated that an increase in fixed assets would increase the extent of compliance with accounting standards as it would improve the financial capability to employ and/or engage qualified accountants in the finance and accounts management positions of the enterprises and big audit firms to audit enterprises’ financial statements. This has the potential of increasing the level of compliance with accounting standards in these enterprises. The study suggested four possible ways by which investment in assets of government business enterprises would be improved; these include: outright privatization, government/private partnership, reforms in the share guarantee status of the commercialized enterprises to allow private investors to come in and government should fulfill the performance agreements made to the Governing Board of these enterprises.

Keywords: Accountability, transparency, firms’ characteristics, determinants of disclosure, disclosure practices, corporate attributes, firm size, enterprise effect, commercialized Federal Government enterprises.
### Introduction

The last three decades have experienced profound desire for changes in corporate financial reporting practices of firms in many countries of the world. The call for a change has not only been in the form of presentation, but also in the information content of annual reports. These changes entail that companies, public or private, should overhaul their reporting practices. The desire for a change is driven both locally and globally by the need for accountability and transparency in financial reporting, which in turn necessitates the revision of accounting standards and adoption of International Financial Reporting Standards (IFRS).

Globally, the demand for full financial information disclosure started with the global financial crises of the 1930s and was fuelled by the collapse of big companies like Enron towards the end of 2001 and the recent financial crisis of 2008. In Nigeria, the collapse of banks and the dwindling fortunes of government enterprises about the 1990s created the desire for full financial information disclosure and hence, improved accountability and transparency in the governance of both private and public enterprises. The need to improve accountability and transparency in the governance of government enterprises necessitated the reforms which brought about the commercialisation of government companies (Privatisation and Commercialisation Act, 2004, as amended)

The commercialization of government companies was partly due to the increase desire for higher level financial information disclosure by public enterprises in order to make them accountable and transparent in financial reporting; by making these enterprises to apply private sector commercial principles in the management of these enterprises (TCPC Commercialisation: Final Report, Volume Three, 1993). In addition, recent developments in the public sector, where government companies emerged for purposes of achieving certain economic goals that the civil service and the private sector have not been able to achieve independently has created sophisticated enterprises both in the nature and operating activities of these enterprises.

This has attracted the attention of the public who hitherto saw public companies as public goods and so, no one’s goods. This new interest is directed towards ensuring that the disclosure practices of government companies is monitored by the public by demanding that the enterprises management are accountable and transparent in the running of these companies.

Statutorily, companies whether listed or unlisted on the Stock Exchange are required to disclose the minimum relevant accounting information in their annual reports as set out in the relevant sections of the accounting standards (IAS 1.16) to assure investors that the firm is operating within the permit of relevant accounting standards. In addition, the disclosure requirements are also necessary to aid both existing and potential investors and other stakeholders in taking economic decisions that further their interest.

Accounting standards are guides to accounting records keeping and financial reporting. The accounting standards should enforce compliance with their principles. However, recent collapse of businesses has raised a number of questions about the non-compliance with accounting standards. For example, a comprehensive study of Nigerian companies by World Bank revealed that the Nigerian financial reporting practices are deficient in the observance of accounting standards (World Bank, 2004).

In addition, several annual reports of the Auditor General for the Federation (AGF) on the audited accounts of commercialized enterprises (as required by section 85(2) of the 1999 Constitution of the Federal Republic of Nigeria, as amended) from 2002 to 2012 showed that commercialized Federal Government enterprises are weak in the observance of relevant accounting standards in the preparation of annual accounts (Auditor-General’s Annual Report- AGAR, on the Accounts of the Government of the Federation of Nigeria for the years ended 31st December, 2002-2012). The reports stated *in aia* that the financial statements of enterprises failed to disclose substantially, relevant items of accounting policies and other accounting information due to their inability to follow most of the relevant provisions of accounting standards in the preparation of their accounts.

Studies on disclosure practices of firms show that disclosure levels are associated with a number of firm’s characteristics, for example, firm size, industry type, leverage, audit firm size and a host of others (Cerf, 1961; Inchausti, 1997; Barako, 2007; and Bhayani, 2012).

However, the findings of these studies are divergent, each reaching varying degrees of conclusions about the influence of these factors on the disclosure of financial information in annual reports of firms. There is also the issue of influence of the nature of the firm (firm effects) on compliance with accounting standards disclosure requirements which has not been examined in previous studies.
There is also a concentration of all researches to the study of private sector listed companies to the disadvantage of government business enterprises, which also contributes to the Gross Domestic Product (GDP) of any nation. To address these perceived gaps, this paper therefore, determined the disclosure index of government business enterprises and the individual disclosure indices of each government business enterprises. The paper also examined empirically, the influence of firm size and firm effects on compliance with accounting standards disclosure requirements by Commercialized Federal Government Enterprises.

This paper represents a sectoral shift from private to government business enterprises research in disclosure practices of firms. The remaining paper is organised as follows: literature review (conceptual and theoretical framework), methodology, discussion of the research, conclusion, recommendation and future of the research.

**Literature Review**

**Introduction**

The literature on accounting disclosure is enormous and investigates a wide range of issues such as: Corporate disclosure practices of firms, including both obligatory and voluntary disclosures of items in annual reports; the determinants of mandatory disclosures; the economic consequences of disclosure; and financial analysis of accounting information to mention a few. Of all these, the determinants of mandatory disclosures have recently attracted a lot of research following the work of Cerf (1961). The increase in the interest of researchers in the determinants of disclosure practices also stems from suggestions that accounting failures have resulted to a number of business collapses in the past three decades (Mack, 2002) and in the dwindling fortunes of government business enterprises (TCPC Commercialisation: Final Report, Volume Three, 1993).

A majority of disclosure studies investigated corporate disclosure practices of limited liability companies in a variety of ways (Umoren, 2009; Adeyemi, 2006 and Barako, 2004). Few studies examined not-for-profit organisations in other countries (Agyei-Mensah, 2012). The results of previous studies are divergent with regards to the level of significance corporate attributes influence the extent of compliance with accounting standards disclosure practices of organisations. For example, prior studies suggested that the extent of compliance with accounting standards disclosure requirements is influenced by firm size. Such as Cerf (1961) suggested that firm size, defined as amount of total assets, affects disclosure practices of such firms. However, the influence of this factor on the extent of accounting standards disclosure compliance differ from study to study, organisations to organisations, country to country and region to region (Barako, 2004; Agyei-Mensah, 2012).

This section discusses key concepts identified in this paper and the theories that form the theoretical basis for relating firm size and firm effects with extent of compliance with accounting standards disclosure requirements by commercialized Federal Government Enterprises in financial reporting in Nigeria. It also reviewed relevant literature associated with disclosure practices among firms and the association between corporate attributes and extent of disclosure.

**Conceptual Framework**

Disclosure is a theoretical concept that is difficult to measure directly. Hence, the literatures on disclosure offer a variety of potential proxies that purport to measure the extent of disclosure in financial reports of accounting items as prescribed by accounting standards (Hassan and Marston, 2010). Despite the abstract nature of accounting disclosure, it has recently become a widely accepted means by which accountability and transparency in financial reporting about firms’ activities can be measured (Hassan and Marston, 2010).

**Importance of Corporate Disclosure**

The imperativeness of looking at disclosure as a means of demonstrating accountability and transparency is viewed from many perspectives. One, the economic justification of disclosure which demonstrates accountability and transparency in financial reports of firms is seen primarily from an implicit assumption in accounting and corporate management that investors based their investment decisions on the information released from annual accounts of firms.

For example, Inchausti (1997) argued that all firms operate in competitive markets and stakeholders such as investors (potential or existing) and other individuals that deal with the company want to know if their investments will increase or decrease their worth.
Two, for government companies, disclosure is key for a variety of reasons, such as, the overriding consideration is not wealth-maximization, but accountability, transparency, economic stabilization, income distribution, value for money, effectiveness and efficiency in which government companies transact businesses and a host of other objectives are very important. This peculiar attributes of this group of companies, place government companies in a unique situation about disclosure.

Three, corporate disclosure is also useful to all users of financial statements. Prior literatures have listed common accounting disclosures that will aid the understanding of the information contains in financial statements. These include statements on how the company has interpreted and applied Generally Accepted Accounting Practice (GAAP) in accounting policies (Vitez, 2013).

Purpose of Corporate Disclosure

Companies may have more disclosures listed on their financial statements depending on the nature and the environment in which the business is operating. For example, the depreciation methods used for business assets, the valuation method used to determine assets and liability values, information on the collectability of receivables and other items of accounting information contained in financial reports and methods used for income determination are all reasons for what disclosures should reveal.

Some disclosures are made for the purpose of meeting environmental responsibilities. For example, Galani, Etyhmios and Stavropoulos (2011) reported that in recent years more companies disclose information about their environment bearing in mind the stakeholder’s demands of environmental responsibility, accountability and transparency. There are also some social responsibilities that are expected to be achieved by companies as legal entities through accounting disclosures. In this regards, Gray (1995) lists social disclosures as reporting that considers environmental, ethical and human issues.

Cost of Corporate Disclosure

Providing information to the public is not a costless task. Among the costs of disclosure are the costs of information production and dissemination. For example, the costs of adopting or adapting an information system (International Financial Reporting System (IFRS) to collect, process data and report information and the costs of hiring accountants and audits firms (Hassan and Marston 2010).

Competitors may make use of available information about a company to their own advantage. For example, information about product development disclosed by one company may be used for the benefit of a competitor (Verrecchia, 1983; Dye, 1986; Darrough and Stoughton, 1990; Wagenhofer, 1990).

Furthermore, lawsuit costs may be incurred when a company is sued regarding its disclosure, if the information subsequently turns out to be erroneous (Skinner, 1994). Thus, a decision to provide more information (full disclosure) to the public should in theory be based on the affordability and a cost-benefit analysis, even as management is faced with adverse environmental factors. However, it is observed that environmental factors affect positively or negatively the extent of information disclosure through annual report (Graham, Harvey and Rajgopal, 2005).

Drivers of Corporate Disclosure

The manifestation of numerous business failures due to inadequate disclosures in the annual reports of firms, which accounts for lack of accountability and transparency in financial reporting, drives the desire to improve disclosures in financial reporting practices of firms. The General-Purpose Financial Statement (GPFS) provides valuable information for different users (IASC, 2002).

However, the major objective of financial statements is that they provide information about the financial position, performance and changes in the financial position of an enterprise (Greuning Scott and Terblanche, 2010). According to Meigs and Meigs (1997), financial statements are the principal means of reporting general-purpose financial information (GPFI) to users, who have vested interest in the financial statements of organizations (IASB, 2006). The accounting data presented in the financial statements must be relevant, reliable and meaningful to the users (Greuning Scott and Terblanche, 2010). However, failures in corporate governance practices have resulted in the collapse of many businesses. This is due to inadequate disclosure of relevant financial information in financial reports of companies (Omoleynwa, 2000; and Mack, 2002).
Disclosure and Corporate Governance

Corporate governance has in recent years assumed considerable significance as a veritable tool for ensuring corporate survival since business confidence usually suffers each time a corporate entity collapses. Most of the business failures in recent past are attributed to failure in corporate governance practices. Gross (2010) writes:

The failure of the financial system in 2008 wasn’t simply a massive failure of common sense, regulations, and leadership. It was also a failure of corporate governance. In theory, the corporate boards at Enron, Lehman Brothers, Bear Stearns, AIG, and General Motors were paid handsome sums to oversee the activity of the executives and protect shareholders’ interest. In practice, they slept as the CEOs ran the companies into the ground.

In Nigeria, the collapse of banks in Nigeria in the early 1990s and the dwindling fortunes of public enterprises were as a result of inadequate corporate governance practices such as insider-related credit abuses, related party transactions, poor risk appreciation, internal control system failures and non-disclosure of insider dealings in financial reports (Ogidefa, 2008).

A critical tool in corporate governance is accounting information disclosure, because it is a means by which accountability and transparency can be measured. For example, Enron’s fall has been widely seen in terms of the inability of its board to monitor what its managers were doing (Gallhofer, 2014). Gallhofer (2014) stated further that in many cases, boards did not provide adequate monitoring of implementation, accounting, reporting and audit. The lack of appropriately qualified non-executive directors also contributed to the problem, as the broad range of skills and knowledge required to fully understand the complex financial and non-financial factors that influence organisational performance were not available (Gallhofer, 2014).

Similarly, Deakin and Konzelmann (2003) pointed out that there was conflict of interest and fraud in Enron, but the root cause of its failure was because of a systematic failure in the company’s business plan and its accounting policy (Deakin and Konzelmann, 2003).

The framework for linking disclosure quality to corporate governance originates from Williamson (1985). Later empirical works on the association between disclosure and corporate governance by Chiraz (1989) and Chen and Jaggi (2000) suggested that corporate governance framework should ensure that timely and accurate disclosure is made on all material matters regarding the corporation, including all the elements in financial reports, financial situation, performance, ownership, and governance of the company.

Recent research on disclosure and corporate governance examine a combined set of corporate governance features that influence disclosure quality in the context of ownership concentration, board independence, quality of directors on the board (expertise), remuneration of board members, legal issues concerning compliance with corporate governance code, personal interest of board members, board diversity, role duality, board size and a variety of other corporate governance elements (Saheed, 2013; Salter, Nahandi and Khoshbakht, 2011; Nandi and Ghosh, 2012; Ramil, Surbaini and Ramil, 2013; Gallhofer, 2014).

Despite the presumption from regulators that corporate governance leads to better disclosure practices, studies found opposing results (Lorsch, 1967), leaving the debate open as to whether corporate governance is a substitute for, or complementary to, a firm’s disclosure practices. These suggest that the literature on impact of corporate governance mechanisms on quality and quantity of information disclosures in financial reports is divergent.

Theoretical Framework

Different theories have been used to interpret the fluctuations in the disclosure practices of firms. This has generated a big debate in the literature about which model that explains best the relationship between corporate attributes and the disclosure practices of firms.
The debate has proved that there is no single theory that provides an adequate explanation of the relationship between various corporate attributes and accounting disclosures, because each theory based on specific assumptions, explains disclosure through a particular perspective.

For example, Jensen and Meckling (1976) used agency theory to explain the association between corporate attributes and disclosure. American Accounting Association (AAA) (1993), Gorman and Wallance (1995) and Bartol et al (1995) used contingency theory to explain the effect of environmental factors on accounting standards in disclosure practices of firms. Other researches use other theories like stakeholder theory, resource dependence theory, stewardship theory and a host of others (Galani, Alexandridis and Stavropoulos, 2011, Alsaeed, 2006)

There are major issues that emerge when theories are adopted to explain research observations. Some of them have been introduced and developed based on the specific characteristics of countries, organisations and capital markets. For example, the stakeholder approach to disclosure has been applied and relied upon in many management and accounting literatures (Ullman, 1985; Roberts; 1992 and Gray, 1997:325-364) to resolve disclosure problems. Stakeholder theory asserts that...the corporations continued existence requires the support of the stakeholders and their approval must be sought and the activities of the corporation adjusted to gain that approval. The more powerful the stakeholders, the more company must adapt.

Disclosure is thus seen as part of the dialogue between the company and its stakeholders. Gray (1995) and Gray (1997) reported that stakeholders have the right to specific information for certain decisions and they should be provided relevant information including mandatory and environmental information.

Five fundamental theories have been adopted in this paper to explain the relationship between firm size and extent of disclosure. These are the contingency, the stakeholder, stewardship, resource dependence and agency theories. Contingency theory emerged in the management literature in the late 1960s and the 1970s, as an alternative to the view of classical management theories that there was a single best way for managers to achieve efficient organisational operations (Gorman and Wallance, 1995). Contingency theory contends that what constitutes effective management is situational; depending upon the unique characteristics of each circumstance (Bartol et al. 1995). The contingency view of organisations can be summarised as: “the best solution is the one that is most responsive to the characteristics of the unique situation being faced”.

Agency theory on the other hand provides a framework that relates company attributes and management and employee attitude towards financial disclosures. Agency theory argues that senior management was likely to manipulate the information in the financial statements in its own favour by selecting accounting procedures that maximize their own utility (Jensing and Mechling, 1976).

The stakeholder theory suggests that stakeholders have the right to specific information for certain decisions and they should be provided relevant information including mandatory and environmental information (Gray, 1997).

Stewardship theory implies that the power of directors to manage the enterprise is derived from their appointment by owners. This means that the managers are required to be accountable to the owners. Stewardship theory thus suggests a collaborative approach between directors and managers.

Such an approach, according to Stephen (2012) stresses service; calling for boards to advice the managers and the managers providing stewardship/accountability reports in line with the requirements of accounting standards to the owners, as is required by statutes.

Resource dependence theory (RDT) refers to how the external resources of organizations affect the behaviour of the organization. The procurement of external resources is an important tenet of both the strategic and tactical management of any company. Organizations depend on many external resources, including labor, capital and raw materials. Organizations may not be able to come out with countervailing initiatives for all these multiple resources if the management is not able to harness the sources of these resources. Therefore, organizations should move through the principle of criticality and principle of scarcity (Drees&Heugens, 2013) to ensure that the sources of resources it defense on are not thwarted by the management insensitivity to recognize the dangers. Critical resources are those the organization must have to function, for example, capital. In this case, the providers of capital and management are a critical aspect of the organization.

Contingency, stakeholder, stewardship, resource dependence and agency theories are used in this study to develop a strong theoretical base for conceptualising, identifying and explaining the relationship between firm size and firm effects factors and compliance with accounting standards disclosure practices of firms. This is illustrated in figure 1.
Figure 1: Conceptual Model for Studying the Influence of Corporate Attributes on Compliance with Accounting Standards Disclosure Requirements by Commercialised Federal Government Enterprises in Nigeria

Figure 1 shows the conceptual model for studying the influence of firm size and firm effects on compliance with accounting standards disclosure requirements by commercialised Federal Government enterprises in Nigeria. The model indicates the board as authorities responsible for preparing financial statements. The preparation of financial statement depends on whether the firm is small or large (Situations 1 or 2). The size of the firm measured by total assets determines the nature of the firm’s characteristics. Accounting standards are used as guiding principles by the board and its management in preparing these financial statements, with the intention that they meet the needs of the users as they meet the qualities of financial statements (Greuning, Scott and Terblanche, 2010). The quality of the financial statements is influenced by the characteristics of the firm and the nature of the firm (whether it is a small firm or large firm). The desire by the board to meet the needs of users depends also on the kind of relationship that exists between them and each group of users. In any of the relationships agency, stakeholder, stewardship and resource dependence theories play a significant role in determining what kind of information that would be disclosed in the financial statements.

Empirical Studies

Many studies have examined the relationship between listed companies’ firm size and the extent of disclosure in both developed and developing countries (Belkaoui and Kahl, 1978; Firth, 1979 and 1980; Cerf, 1961; Singhvi and Desai, 1971; Busby, 1975; Ahmed and Nicholls, 1994; Solas, 1994; Naser, 1998; Naser and Al-Khatib, 2000; Wallace and Naser, 1994; Firer and Meth, 1986 and Owusu-Ansah, 1998). Firm size has been advanced in the literature to explain variations in the extent of disclosure by listed companies. Studies (Lang and Lundholm, 1993; Wallace et al., 1994; Wallace and Naser, 1995; Patton and Zelenka; 1997; Naser; 1998; Owusu-Ansah; 1998 and Naser and Al-Khatib; 2000) have tested this variable using listed companies and the results have been inconsistent and with conflicting outcomes. In Nigeria, empirical works (Umoren, 2009; Adeyemi, 2006; Ofoegbu and okoye, 2006; World Bank, 2004; Okike, 1989 and 2000; and Wallace, 1987) have investigated the impact, the relationship between firm size and disclosure levels and the relevance of accounting standards in the disclosure of accounting information in annual reports of Nigerian listed companies (banks and other corporate bodies) and their findings indicated that there is no agreement as to the influence of firm size on the extent of disclosure practices of listed companies.
Firm Size

According to Owusu – Ansah (1998), intuition and empirical studies suggest that firm size positively influences mandatory disclosure practices of firms. On the other hand, Wallace et al (1994) admitted that although there is overwhelming support for a positive relationship between firm size and level of disclosure, the theoretical basis is unclear.

The direction of influence of firm size on extent of disclosure can be positive or negative. That is depending on the situation (contingency theory perspective). On the positive side, it can be argued that since large companies usually operate over wide geographical areas and deal with multiple products and have several divisional units, they are likely to have well-built information system that enables them to track all financial and non-financial information for operational, tactical and strategic purposes (Cerf, 1961). With this type of well-structured internal reporting system, the incremental costs of supplying information to external users will be minimal. This will make them disclose more information than their smaller counterparts.

However, Street and Gray (2001), Wallace et al (1994) and Wallace and Naser (1995) found no such association. Wallace and Naser (1995) argued that large firms are visible and susceptible to political attacks, in the form of pressure for the exercise of social responsibility, greater regulation such as price control and higher corporate taxes and firms may react to this political action by avoiding attention which disclosure of some significant facts could bring to them. Therefore, large firms disclose less detailed information in their annual reports to avoid attention.

To evaluate the situation in Commercialised Federal Government Enterprises, one hypothesis has been formulated to assist in examining the disclosure variations in the annual reports of these enterprises. The characteristic to be tested using this hypothesis is company size represented by total assets. To test the assertion that large firms tend to disclose more information than small firms, we formulate the hypothesis that:

**Hypotheses 1**

H<sub>0</sub> There is no significant relationship between company size and extent of compliance with accounting standards disclosure requirements by the reporting enterprises.

Firm Effects

The relationship between firm effects and the extent of disclosure has not been examined in earlier studies and especially, firms in the public sector. The special features of a firm include managerial style, managerial philosophy, type of market, process of production and a host of others. These factors tend to influence the intercepts of the regression model in an attempt to estimate the relationship between firm size and level of disclosure (Gujarati, Porter and Gunasekar, 2012).

The firm effects interact with the firm size to give different intercepts for each enterprise as against what the influence of firm size would have been, had the firm effects are not present. To determine the firm effects on each enterprise’s disclosure, the Fixed Effect Least Square Dummy Variable Model is used to identify and isolate the influence of each enterprise firm effects on disclosure compliance, in order to determine the actual influence of firm size on disclosure, which previous studies have ignored all this while. Therefore, our hypothesis is:

**Hypothesis 2**

H<sub>0</sub> There is no significant relationship between firm effects and compliance with accounting standards disclosure requirements.

It is observed that very little research has been devoted to the corporate disclosure practices of firms in Nigeria. In addition, the review of empirical studies has revealed that prior studies on disclosure concentrated on listed companies in the private sector as against government business enterprises. The divergent results of prior researches on disclosure of listed companies require specific examination of government business enterprises to confirm or refute the suggestions that firm size influences the extent of mandatory disclosure levels of Commercialised Federal Government Enterprises. For the fact that prior studies also do not cover the influence of each firm effect on disclosure compliance, we need a study to examine this influence. Finally, due to the rapidly changing global economic and financial reporting environment, there is also need for a constant update in this area of study to take into account emerging issues.
Methodology

Research Design

The study used content analysis research methods, to collect and analyse data. The reason for employing the content analysis approach was that financial reports of the enterprises were used for determining the disclosure indices of the enterprises and the overall index of all the enterprises.

Contents Analysis Approach

There are two categories of secondary data used in this study:

The first is the discrete data collected with the aid of a Disclosure Index Template and converted into continuous or ratio data using the Disclosure Compliance Index Table. The indices calculated here represent the dependent variables.

The second category of data was the continuous or interval or ratio data collected from the financial statements of the enterprises. They include financial values of assets, gearing ratio (leverage), current ratios, and the dummy valuables of audit firm size and professional qualification which form the independent variables (corporate attributes).

There are 18 enterprises with 195 annual reports for eleven years. However, only 192 out of 195 financial reports were obtained from the enterprises (Table 5). The one hundred and ninety two (192) financial statements were analysed using the disclosure index checklist, disclosure index template and the corporate attributes template.

Table 1: Rendition of Annual Reports as at the End of 2012

<table>
<thead>
<tr>
<th>S/NO</th>
<th>Commercialised Federal Government Enterprises</th>
<th>Number of Annual Reports Expected from 2002-2012</th>
<th>Number of Annual Reports produced from 2002-012</th>
<th>Outstanding Annual Reports from 2002-2012</th>
<th>Percentage of Annual Reports Submitted to AGF 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NRC</td>
<td>11</td>
<td>11</td>
<td>0</td>
<td>100%</td>
</tr>
<tr>
<td>2</td>
<td>FHA</td>
<td>11</td>
<td>11</td>
<td>0</td>
<td>100%</td>
</tr>
<tr>
<td>3</td>
<td>S-RRB</td>
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<td>10</td>
<td>1</td>
<td>90.91%</td>
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<tr>
<td>4</td>
<td>H-JRB</td>
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<td>10</td>
<td>1</td>
<td>90.91%</td>
</tr>
<tr>
<td>5</td>
<td>CBDA</td>
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<td>90.91%</td>
</tr>
<tr>
<td>6</td>
<td>LBRBDA</td>
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<td>11</td>
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<td>100%</td>
</tr>
<tr>
<td>7</td>
<td>CRRBDA</td>
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<td>11</td>
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<td>100%</td>
</tr>
<tr>
<td>8</td>
<td>A-IBDA</td>
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<td>11</td>
<td>0</td>
<td>90.91%</td>
</tr>
<tr>
<td>9</td>
<td>NDBDA</td>
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<td>11</td>
<td>0</td>
<td>100%</td>
</tr>
<tr>
<td>10</td>
<td>B-OBDA</td>
<td>11</td>
<td>11</td>
<td>0</td>
<td>100%</td>
</tr>
<tr>
<td>11</td>
<td>O-OBDA</td>
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<td>8</td>
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<td>100%</td>
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<tr>
<td>12</td>
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<tr>
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<tr>
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<tr>
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</tr>
<tr>
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<td>FAAN</td>
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</tr>
<tr>
<td>18</td>
<td>UBRBDA</td>
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<td>11</td>
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<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>195</td>
<td>192</td>
<td>3</td>
<td>98.98%</td>
</tr>
</tbody>
</table>

Table 1 showed the enterprises that submitted at least seven years annual reports consistently. The total number of annual reports submitted to the AGF by December, 2012 was 192, representing 98.98% of the annual statements required for the study and 3 annual accounts (1.5%) are still outstanding.

Construction of Disclosure Index Template

The disclosure index template includes all relevant Statement of Accounting Standards (SAS) and International Accounting Standards (IAS). The International Financial Reporting Standards (IFRS) is required to be complied with in the annual reports of enterprises by 2014 financial year and therefore was not included in the disclosure index template. Commercialized Federal Government Enterprises are included in the IFRS as Significant Public Entities (SPEs) or Significant Business Units (SBU) with a new reporting date of 2014.
Similarly, the International Public Sector Accounting Standards (IPSAS) were not included because IPSAS are only applicable to wholly financed government owned corporations, parastatals, agencies, ministries, commissions and a host of others. Commercialized Federal Government Enterprises adopt sections 331-367 of Companies and Allied Matters Act (1990) which empowered companies to use SAS, IAS and IFRS as and when each set of standards is applicable for preparing financial reports (TCPC Commercialization: Final Report, Volume Three, 1993). SAS checklist was based on 23 mandatory SASs and contained 305 information items.

**Table 2: Reasons for Inclusion or Exclusion of SAS**

<table>
<thead>
<tr>
<th>Statement of Accounting Standards (SAS)</th>
<th>Reasons for inclusion and exclusion</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAS 1, SAS 2, SAS 3, SAS 4, SAS 5, SAS 6, SAS 7, SAS 8, SAS 9, SAS 11, SAS 13, SAS 14, SAS 16, SAS 17, SAS 18, SAS 19, SAS 22, SAS 23, SAS 24, SAS 27, SAS 28, SAS 29 and SAS 31</td>
<td>Relevant to at least one of the commercialized Federal Government enterprises</td>
<td>Included</td>
</tr>
<tr>
<td>SAS 10, SAS 15, SAS 20, SAS 21, SAS 25, SAS 26 and SAS 30</td>
<td>Irrelevant to annual reports of Commercialized Federal Government enterprises</td>
<td>Excluded</td>
</tr>
<tr>
<td>SAS 12</td>
<td>Replaced by another standard, SAS 19</td>
<td>Excluded</td>
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</tbody>
</table>

**Table 3: Reasons for Inclusion or Exclusion of IAS/IFRS**

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<th>Standards</th>
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<th>Remarks</th>
</tr>
</thead>
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<td>IAS 1, IAS 2, IAS 7, IAS 8, IAS 10, IAS 11, IAS 12, IAS 16, IAS 17, IAS 21, IAS 26, IAS 27, IAS 28, IAS 31, IAS 33, IAS 34, IAS 36, IAS 37, IAS 40, and all IFRS</td>
<td>Accorded substantially with the requirements of equivalent Nigerian accounting standards- SAS or not applicable due to date of commencement.</td>
<td>Excluded</td>
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</table>

**Estimating the Disclosure Indices**

The Disclosure Indices of the enterprises are reported in table 8. The Overall Disclosure Index is 0.78. Table 8 also showed the disclosure indices of all 18 enterprises as follows: NTA 96%, NNPC 95%, NDRB 86%, B-ORB 84%, FAAN 83%, NRC, FHA, CB, LBRB, CRRB, O-ORB, FRCN and NAN have disclosure indices from 70% to 80%. Whereas S-RRB, A-IRB, LNRB and UBRB have indices ranges between 60% to less than 70%.

The “0s” under Sokoto-Rima River Basin Development Authority, Hadejia-Ja’amma River Basin Development Authority and Nigeria National Petroleum Corporation in 2012 represent the year that these enterprises failed to submit audited financial statements to the Auditor General’s office.
Table 4: Descriptive Statistics of Disclosure Index

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<th>S/No</th>
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</table>

Source: Field Work 2014

Estimating the Regression Coefficients

Table 5 shows a Random Effects Estimation Regression analysis with the overall p-value of 0.0036 < 0.05 significance-level; indicating that the model is fit. This is confirmed by the p-value of 0.004 for company size variable for hypothesis 1. This result showed that company size is significantly related to extent of disclosure index.

**Random-Effects**

Table 5: Random-effects General Least Square Regression Analysis

- Number of obs = 192
- Group variable (i): firms
- Number of groups = 18
- R-sq: within = 0.0634
- Obs per group: min = 8
- between = 0.0267
- avg = 10.7
- overall = 0.0056
- max = 11
- Random effects u_i ~ Gaussian
- Wald chi2(1) = 8.48
- corr(u_i, X) = 0 (assumed)
- Prob>chi2 = 0.0036

| yedi | Robust | Coef. | Std. Err. | z     | P>|z|  | [95% Conf. Interval] |
|------|--------|-------|-----------|-------|------|-------------------------|
| firmsize | .012791 | .0043912 | 2.91 | 0.004 | .0041844 | .0213977 |
| _cons | .6401046 | .0495813 | 12.91 | 0.000 | .542927 | .7372821 |
| sigma_u | .10622959 |  | | | | |
| sigma_e | .02586012 | | | | | |
| rho | .94405425 | (fraction of variance due to u_i) |

However, the random effects model does not take into accounts the special features (firm effects) of the enterprises. Therefore, to examine the fixed effects influence on disclosure, the fixed effects regression model was used as shown in table 6.
Fixed Effects General Least Square Regression Analysis

Equation (1) expresses the general fixed effects regression model that was used in this study to aid in the estimation of the regression coefficients of the relationship between firm effects and disclosure index. Since there are 18 enterprises used for this study, the equation contained 17, instead of 18 dummy variables representing each enterprise. This was done to avoid dummy variable trap problem, and the equation was N-1 dummy variables.

The model is stated as:

\[ Y_{it} = \beta_0 + \beta_1 \ln(FirmSi)_{it} + \delta_1 FHA_{i} + \delta_2 RRB_{i} + \delta_3 H-JRB_{i} + \delta_4 CB_{i} + \ldots + \delta_{17} AIRB_{i} + \delta_{18} UBRB_{i} + \epsilon_{it}. \]  

Where:

- **Y_{it}** = Disclosure index of enterprise \( i \) in year \( t \)
- **FirmSi_{it}** = Firm size of firm \( i \) in year \( t \)
- **FHA_{i}** = Federal Housing Authority assigned 1 if it is FHA and 0 if otherwise
- **RRB_{i}** = Sokoto-Rima Rivers Basin Development Authority, assigned 1 if it is RRB and 0 if otherwise
- **H-JRB_{i}** = Hadejia-Jama’are River Basin Development Authority assigned 1 if it is H-JRB and 0 if otherwise
- **CB_{i}** = Chad Basin Development Authority assigned 1 if it is CB and 0 if otherwise
- **LBRB_{i}** = Lower Benue River Basin Development Authority assigned 1 if it is LBRB and 0 if otherwise
- **CRRB_{i}** = Cross River River Basin Development Authority assigned 1 if it is CRRB and 0 if otherwise
- **AIRB_{i}** = Anambra-Imo Basin Development Authority assigned 1 if it is AIRB and 0 if otherwise
- **NDRB_{i}** = Niger Delta Basin Development Authority assigned 1 if it is NDRB and 0 if otherwise
- **B-ORB_{i}** = Benin-Owena Basin Development Authority assigned 1 if it is BORB and 0 if otherwise
- **O-ORB_{i}** = Oshun-Ogun Basin Development Authority assigned 1 if it is OORB and 0 if otherwise
- **FRCN_{i}** = Federal Radio Corporation of Nigeria assigned 1 if it is FRCN and 0 if otherwise
- **NTA_{i}** = Nigerian Television Authority assigned 1 if it is NTA and 0 if otherwise
- **NAN_{i}** = News Agency of Nigeria assigned 1 if it is NAN and 0 if otherwise
- **NNPC_{i}** = Nigerian National Petroleum Corporation assigned 1 if it is NNPC and 0 if otherwise
- **LNRB_{i}** = Lower Niger River Basin Devt Authority assigned 1 if it is LNRB and 0 if otherwise
- **FAAN_{i}** = Federal Airport Authority of Nigeria assigned 1 if it is FAAN and 0 if otherwise
- **UBRB_{i}** = Upper Benue River Basin Devt Authority assigned 1 if it is UBRB and 0 if otherwise
- \( \beta_0 \) = NRC_{i} = Nigerian Railway corporation assigned 1 if it is NRC and 0 if otherwise
- \( \beta_1 \) = the coefficient of firm size
- \( \delta_1 \delta_2 \delta_3 \delta_4 \delta_5 \delta_6 \delta_7 \delta_8 \ldots \delta_{17} \) = slopes of the dummy variables
- \( \epsilon_{it} \) = Stochastic random variable (error term)
- \( i = 1, 2, 3, 4, 5, 6, 7, 8, 9, \ldots, 17 \)
- \( t = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 \).
Table 6: Fixed-effects Estimators

Fixed-effects estimates using 192 observations
Included 18 cross-sectional units
Time-series length: minimum 9, maximum 11
Dependent variable: yedi

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-ratio</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
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</tr>
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<td>Firmsize</td>
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<td>-9.3500</td>
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</tbody>
</table>

Mean dependent var | 0.763706 | S.D. dependent var | 0.105752 |
Sum squared resid | 0.091779 | S.E. of regression | 0.024255 |
R-squared | 0.957033 | Adjusted R-squared | 0.947393 |
F(35, 156) | 99.27687 | P-value(F) | 1.29e-89 |
Log-likelihood | 461.5670 | Akaike criterion | -851.1339 |
Schwarz criterion | -733.8641 | Hannan-Quinn | -803.6388 |
Rho | 0.005971 | Durbin-Watson | 1.817660 |

Test for differing group intercepts -
Null hypothesis: The groups have a common intercept
Test statistic: F(17, 156) = 2.33524
With p-value = P(F(17, 156) > 2.33524) = 0.00334376

Results

The results of Table 6 revealed that there is a positive and significant relationship between dependent variable (YEDI) and firm size (firmsize) with P-value = 0.0000 at 0.05 level of significance. Based on this result, the null hypothesis that there is no significant relationship between company size and extent of compliance with accounting standards disclosure requirements by commercialized Federal Government enterprises was rejected. This result supports the theoretical basis that the size of total assets of a firm influences positively the disclosure practices of organizations. This is consistent with Owusu – Ansah (1998), who reported that theory, intuition and empirical studies suggest that size positively influences mandatory disclosure practices. Therefore, firms with large amount of total assets are inclined to disclose more accounting items in their annual accounts than firms with small amount of total assets.

Singhvi and Desai (1971) advanced three basic reasons why large firms disclose more information, first, that cost of accumulating detailed information is relatively insignificant for large firms; second that the management of a larger firm is likely to realize the possible benefits of disclosure than smaller firms, and third that as small firms feel that full disclosure can endanger their competitive positions, they tried to disclose only information that will not pose a threat to their business.
Table 6 also showed that the p-values of the regression for a majority of the enterprises were $0.0000 < 0.05$ level of significance. For example, NRC, FHA, H-JRB, CB, LRB, CRRB, NDRB, BORB, FRCN, NTA, NNPC, and FAA showed a positive and significant relationship with disclosure index ($YEDI$). This means that these enterprises’ disclosure practices are influenced by firm effects (firm’s special features). On the other hand, SRRB, AIRB, LNRB and UBRB’s firm effects are negatively related with disclosure levels. However, O-ORB and NAN’s firm effects do not have any significant relationship with disclosure index.

The estimation of the Durbin-Watson is approximately 2 and is free from autocorrelation. The F-test of the model has a p-value $= 0.0000 < 0.05$ level of significance, showing that the variables in the model are fit and linearly independent. The coefficient of determination ($R^2$) is 95.7033% and Adjusted $R^2$ is 94.7393% meaning that the variations in the dependent variables $YEDI$ are 94.7393% explained by the firm size and each of the enterprise firm effects (firm’s special features).

**Discussion**

**Firm Size**

Our results lend support to the idea that firm size is decisive in shaping the patterns of disclosure practices of Commercialised Federal Government Enterprises. The hypothesis that there is significant relationship between firm size and disclosure practices is true. The policy implication of this is that the amount of investment in the assets of these enterprises should keep increasing and when this happens, investors and other stakeholders should believe that the disclosures in the financial statements would improve and so the accounting information as required by accounting standards. This confirms the suggestion that company size is the most consistently reported corporate attribute that significantly influences the disclosure practices of firms. This assertion is supported by this result, because, the enterprises that have indices above 90% are enterprises with large network of operations and have huge sums of money in assets, for example, NTA (96%), and NNPC (95%) (Table 6).

**Firms’ Effects**

Our regression results show also that firm effects of majority of the enterprises influence information disclosure. In particular, twelve (12) enterprises’ disclosures out of eighteen (18) are influenced by firm effects and have contributed significantly to the overall disclosure level of these firms. This result indicates that the influence of the twelve enterprises’ firm effects is significant on disclosure practices of commercialized enterprises in Nigeria. It further explains the need to ensure that while accounting standards are expected to ensure adequate disclosures in financial reporting, care must be taken to ensure that the characteristics of the enterprises and the nature (firm effects) are adequately monitored to provide a conducive environment for accounting standards to be effectively deployed in preparing financial reports.

**Disclosure Indices of Firms**

On the bases of individual enterprises, NTA and NNPC with disclosure indices of 0.96 and 0.95 respectively, indicate statistically that their disclosure levels are higher compared with the cross-country average disclosure benchmark of 0.91 for emerging economies like Nigeria as revealed in the literature (Tower, Hancock and Taplin, 1999). The overall disclosure index is far less than the cross-country average benchmark of 91% for emerging economies.

**Conclusion**

A great deal of effort has been devoted in prior literature to identify the disclosure practices of listed firms and to examine the factors that shape the disclosure practices of these firms. The recent rebasing of the Nigeria’s Gross Domestic Product (GDP) which included all sectors of our economy, be it transportation, water resources, housing, communication, information and other manufacturing/production and services sectors including Arts; goes to show that all the sectors of the economy are important and that the accountability and transparency of financial reporting as part of the overall corporate governance of companies operating in each of the sectors is important for the overall assessment of the hearth of the country’s economy. This is more so now that the oil prices have gone down to the lowest level. Based on this conception, this study analysed the influence of firm size on the extent of disclosure by commercialized Federal Government enterprises and influence of firms’ effects on disclosure using a panel and time-series data that enables us to identify variations in the influence of firm effects upon disclosure practices of these enterprises. The study used the data set from financial reports of commercialized enterprises operating in Nigeria from 2002 -2012.
We evaluated two hypotheses, the first on influence of firm size and the second on influence of firm effects on the extent of compliance with accounting standards disclosure requirements. The results of both random and fixed effects regression analysis revealed that firm size is significantly and positively related to levels of disclosure compliance with accounting standards. The results of the fixed effect least-squares dummy variable model also showed that firm effects (enterprises’ nature) influenced information disclosure in a majority of enterprises. The differences in the p-values of the random and fixed effects regression models were due to special features of each enterprise, such as managerial style, managerial philosophy, type of management employees, or type of market each enterprise is operating. From the results we found that a change in the dependent variable disclosure index (YEDI) is as a result of a change in the firm size and each of the enterprise’s effects.

Finally, the overall disclosure index of the 18 enterprises for the period under review for eleven years was calculated to be 0.78 (78%). The overall disclosure index was an indicator of extent of disclosure of accounting information in financial reports of all commercialized Federal Government enterprises (Tower et al, 1999) and this was generally low compared with the average cross-country classification benchmark of 91% for emerging economies.

It was observed also that the average disclosure performance of most of the enterprises was caused by the non-compliance with the performance agreement entered into by government and the enterprises boards to grant them take-off grant, which would have increased their assets based to enable them hire professional accountants for accounting services and audit firms for audit services.

This was caused by the knowledge gap of key staff at the top-post of the accounting departments as a result of the transition from Government accounting framework to SAS and IAS as contained in Paragraph 5.23 of the TCPC: Commercialization- Final Report, Vol.3 (1993), which are more sophisticated. This created the problems of understanding the complexities of how to deal with accounting matters arising from the use of SAS and IAS such as technical knowledge or competences of staff. In addition, the confusion that greeted the transition from public sector to private sector accounting principles was still being felt in some commercialized companies as a result of the knowledge gap of the basic requirements to deal with technical issues on the subject matter.

This finding has implications for public policy toward commercialization and privatization of enterprises as it concerned disclosure. The policy trust by government must take into account that commercialization shall benefit both local and foreign investors. Understanding the role firm size (Capitalization) plays a significant role in the observance of accounting standards in preparing annual reports and would assist managers and investors in taking decisions on matters that concern the investment mix of the firm.

Understanding that accounting standards on their own would not guarantee adequate disclosure of accounting items in financial report would assist regulators and the issuers of accounting standards to include incentives in accounting standards to encourage compliance to improve accountability. Nigeria can actively pursue policies under which incentives for large core investors (tax holidays) are available for them to take advantage of, which will increase the investments in assets to strengthen disclosure practices of firms.

The result of this paper should also alert policy makers to the fact that the commercialization policy stated some conditions that government must fulfill, such as provision of adequate grant to improve management and operations of the enterprises. The provision of the additional fund which government promised to give after the commercialization, will not only improve operations but also corporate governance in terms of accountability and transparency since our findings confirmed that increase in amount of assets influences significantly the extent of disclosure of accounting items in accounts. Our findings also have implications for the managers in that the result indicated that managers should be careful in deciding on amount of capital to be invested in a firm, since the amount held in assets is potentially a factor for deciding on the level the enterprise could disclose its activities in annual report.

It is also important for the managers to know that even though the study did not evaluate the highest amount beyond which firm size would no longer be a factor in disclosure, common sense suggests that other factors too should be considered when managers are trying to use firm size to stimulate adequate disclosures in firms, as to ignore the behavioural aspect of firm size of companies may introduce some new elements into the existing situation. Firm size beyond the managers’ capabilities due to sophistication and complexities would lead to low disclosure.
In addition, the implication for policy makers is that the low level of accountability and transparency as shown in the average overall disclosure index would not encourage core-investors to put their money in such companies. This is because the low disclosure would discourage core-investors who would not be sure of the company’s worth at the time of commercialization to price them very low. This would also affect the revenue of government. Similarly, the ability of the enterprise to raise funds at the capital market is also curtailed due to the inability of the accounts to communicate vital information for investment decisions. This is because investors would hardly be able to analyzed the financial reports of the firm given that there are incomplete information from the financial reports due to low disclosure. Therefore, accounts staff of these enterprises should be given the opportunity for further training to enable them cope with the technical knowledge required for the operation of these accounting standards.

Finally, this is the first part of a series of papers on influence of corporate attributes on compliance with accounting standards disclosure requirements by Commercialized Federal Government Enterprises in Nigeria. It is hoped that subsequent publications would deal with other issues left out from this paper, such as the influence of other corporate attributes on extent of disclosure.

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