Comparative Evaluation of International Public Fund Accounting and Financial Reporting Practices in Selected Sovereign Entities

Christopher E. Alozie, B.Sc (Econs); M.Sc. Econs, M.Sc (Accounting); M.Sc. (Banking & Finance); Ph.D*. FCA. Senior Lecturer (Accounting), Tansian University, Umunya – Onitsha & Research Fellow, Anambra State University – Uli, Anambra State, Nigeria. Mobile Phone: +234-7055342225 & +234-8033474629

Abstract

The paper conducted comparative review of public fund accounting and assessed reported consolidated and capital fund balances in financial statements of five sovereign nations. Ex-post 'facto' analysis of data extracted from published financial statements using archival information retrieval method. "Absolute percentage margin" of difference between "imputed / "expected" accounting events technique used. Data used came from Nigeria's federal treasury. Model one results show that consolidated fund were authorised by laws. Test two indicates slight variations in composition of consolidated fund in financial reports, especially for Nigeria. Model three result show fairly uniform representation of consolidated fund balances of all the entities. Only Nigeria presented capital fund in the financial statements in compliance. Test four yields yield significant negative values. Consolidated fund accounting was uniform among the entities. While Nigeria's pattern of capital development fund appear defective. The paper recommends that accounting and reporting standard on fund accounting is urgently needed.

Keywords: comparison of public funds accounting, Consolidated fund, Development fund, Legislative instruments, Authorisation, fund balances, sovereign financial reporting.

Introduction

This paper conducted comparative review of public fund accounting and analytically investigated the reported consolidated and capital development fund balances in annual financial statements of five sovereign nations. It aimed to determine the relevance and usefulness for financial accountability / stewardship reporting of these two public funds in treasury management and government financial reporting in the selected entities. Furthermore, the study sets out to provide research outcomes that may guide the relevant international regulatory bodies to streamline public fund (equity fund) accounting in government sector; with a view to establishing standards for tax-payers equity funds and possible harmonization of its presentation in financial reporting. These phenomena have rendered financial analysis, interpretation of financial statements government entities and evaluation / ascertainment of the financial position (true and reliable health status) of different countries and comparison of public fund balances and the net financial position of different sovereign extremely difficult, presently.

The reason for comparative review on consolidated and capital development fund accounting system and representation of these major of public funds in financial reporting system is to determine information utility of public fund balance in financial position of government entities. The study involved a pilot study of five sovereign entities, namely Nigeria, South Africa, Australia, United Kingdom and the United States of America. Federal Government of Nigeria was chosen because it has consistently recorded huge negative consolidated fund and also rendered capital development fund balance in its audited annual financial statements for over two decades. It has been observed that the pattern of Nigeria's public fund accounting model is substantially different from the practice in the other comparable sovereign entities. Take for example, other countries like South Africa, Australia, USA, and etcetera do not capture and include capital development fund as a constituent of taxpayers' equity fund or capital employed in the annual financial statements. The external users of government financial statements often view consolidated fund or taxpayers' equity as the equivalence of net worth in financial position of sovereign entity. In certain situations cases this does not represent the realistic financial position / or the net-worth of a reporting sovereign entity.

The implementation of the international public sector accounting standards (IPSASs) in many sovereign entities have resulted to remarkable paradigm shift in fund unit accounting pattern in government accounting system and format of presentation in financial reporting (International Federation of Accountants (IFAC), 2004). This development appears to facilitating the uniform treatment of the public fund (consolidated fund, or general fund, net-worth and or citizens' equity fund accounting in government-wide accounting and financial reporting practices globally. Under the extant IPSASs accounting regime, array of public fund account items, that is, quasi-permanent capital funds or quasi-equity reserves capital fund account items appear to being treated broadly as taxpayers' equity capital fund of a government entity (IFAC, 2004).

Flowing from the latest accounting regime, government entities are now required to render reliable financial statements to the public (IFAC-IPSAS, 2004). But it is unclear to the external users of sovereign corporate financial reports whether public equity fund or capital employed due to divergence in the presentation of consolidated fund in government accounting on one side. In the case of Nigeria, for instance, consolidated revenue fund and capital development fund appear to represent citizens' equity capital fund but the pattern of public fund accounting appears significantly different from public funds recorded and reported in some other sovereign government entities.

1.2 Statement of the Problem

Consolidated (revenue) fund and capital development fund are the two common variants of public funds frequently captured as capital employed in government entities. Rendition or representation of these fund balances in financial reporting of sovereign government entities has come under close scrutiny within current public sector accounting regime. Although consolidated (revenue) fund can be seen as legally operated and rendered as core component of the citizens' or tax-payers equity fund in financial statements in several sovereign entities; it has observed that capital development fund on the other extreme, is optionally adopted and reported in the annual financial statements of some entities, for example in Nigeria. As a result, there is significant divergence in the pattern of public fund accounting system (CRF and CDF) and substance of the reported fund balances in corporate financial reports in different sovereign entities in the international arena. These observable trends in the international public sector accounting systems has triggered series of the problems in public fund accounting, including lack of uniformity, differences in the composition of fund balances shown in sovereign financial positions and congruence in faithful representativeness (quantitative elements or values) of public fund balances in government financial statements.

Second, there is a seemingly lack of clarity to accounting information, relevance, and reliability of the fund balances commonly presented as capital employed or part of liabilities fund in sovereign balance sheet of many countries. For example, public fund balances recorded in the financial statements in Nigeria and possibly some government entities included capital development fund CDF) and CDF balance as part of public fund without showing the corresponding fixed assets in the same balance sheet. These practices render the financial position posted in such government entities unrealistic in many dimension. To a reasonable extent such fund balances do not represent true and reliable carrying balances fund accounts and financial operations routed through these funds but were merely included as notional balancing adjustment figures that were applied merely to bring the total assets and total liabilities of the balance sheet to tally (agree0. To buttress this fact, Ajine in his audit opinion to FGN (2015) financial statements observes that there were remarkable discrepancies existing between the provisions of public finance laws and constitutional authorisation of the establishment, operations and representation of the consolidated revenue fund (CRF) and capital development fund balances in financial reporting.

In a related development, Nigeria's Finance (Control and Management) Act of 1958 authorized the creation of capital development fund in the case of Nigeria. However, it appears that the real intention of that piece of legal instrument has been given some misinterpretation of the provisions of the legislations based on the actual treatment given to capital development fund as part of public fund accounting / fund balance in Nigeria's financial reporting. Consequently, the financial position is blurred to the extent that the equivalence fixed assets acquisitions were not captured in the accounting records, which leaves much to be desired. *This development necessitated* comparative review on public fund accounting system and reporting practices in Nigeria with other countries; namely, South Africa Australia, United Kingdom and the USA conducted in this study. It is has been noticed that none of the other four sovereign entities recorded and presented the year-end carrying balance of the capital development fund as an integral part of public capital fund or taxpayers' equity or general fund in USA in their respective financial reports. ((HM, Treasury (UK), 2007, 2015; South Africa's Financial Reports, 2012, 2015; USA, 2009, 2012, 2015). Thus, the Nigerian model public fund accounting might not be appropriate as it is at variance with the international best practice.

In essence, it is imperative to conduct the comparative review and evaluation of sub-fund items that constitute public equity funds (consolidated and capital development funds), not only for Nigeria but also in the four selected sovereign entities. This situation elicit thorough investigation into the pattern of public fund accounting practices and rectification of the discrepancies and defects public equity fund being reported in sovereign entities. additionally, members of the public, including the financially literate persons do not fully understand whether the consolidated revenue fund (CRF) balances shown in sovereign financial statements (in some cases) represent long-term equity capital employed in government entities (the state) on behalf of the citizens or summary of the net-worth of the reporting government entity. In fact, Ani, (2017) argued that the nature and purpose of consolidated fund or general fund is not well defined in several jurisdictions and understood by many users.

The pertinent research questions formulated to guide in model development, gathering of data for analysis in the comparative review of public fund accounting in the five sovereign entities were based on fundamental principles of fund accounting in public sector, legalistic-environment and compliance to 'Rules of law model in government accounting. These include: Is the consolidated (revenue), general or citizens' equity funds accounting commonly adapted and reported in the financial statements of the sovereign government entities uniformly employed. Does the consolidated fund account operated in each of the reviewed sovereign entities were duly authorized by national legislations? Is there substantial difference in the nature, make-up and value of consolidated fund or general fund or citizens' equity reported in the sovereign balance sheet of the selected countries? Similarly; does each of these five sovereign entities establish, operate and render capital development fund as part of their respective general or citizens' equity funds accounting and reflected it in the financial statements?. Did each of the reviewed sovereign entities duly authorized by national legislation to operate capital development fund in the corporate report? Is there significant difference in quantitative attributes of capital development fund reported in the sovereign balance sheet of the selected countries?

The main objective of this study is to conduct comparative review and evaluation of the public fund accounting, specifically on consolidated revenue and capital development funds) and their representation in government financial reporting practices in selected sovereign entities, notably; Nigeria, South Africa, United Kingdom, USA and Australia. The research was carried out with view to ascertain the degree of uniformity or disparity in the structural pattern of public fund accounting (specifically consolidated revenue and capital development funds) and carrying balances of these funds duly reported in the financial statements of the other sovereign entities and Nigeria. Specific objectives of the research were to:

(1) Establish the extent to consolidated fund was maintained in compliance with existence of legislation instruments that authorised the operation and presentation of consolidated revenue fund balance in financial statements of these sovereign entities.

(2) Ascertain the magnitude of congruence or discrepancies in composition of sub-fund items making up consolidated fund duly presented in the annual financial statements of the entities.

(3) Determine the level divergence in the quantitative attribute of consolidated fund balances presented in the financial statements of the selected entities; and between Nigeria and the other four sovereign entities.

(4) Establish the extent to which capital development was maintained in compliance with existence of legislation instruments that authorised the operation and presentation of capital development fund balance in financial statements of these sovereign entities.

(5) Determine the degree of divergence in quantitative attribute of capital development fund balances recorded in financial statements of Nigeria, compared to the other four sovereign entities.

This research on a comparative review and evaluation of the consolidated and capital development funds becomes inevitable due to acute scarcity or non-existence of empirically research on fund accounting and stewardship reporting in government financial reporting in the literature. This in-depth analytical review of consolidated revenue fund and capital development fund provide significant expositions on the true nature and purpose of creation of these two sets of public fund in the general government sector.

This study also provides the national and international accountancy bodies; treasury authorities, researchers and regulators useful information for establishing accounting standards for effective harmonization of public fund accounting in sovereign and sub-national government entities, globally. It will help in mainstreaming of public fund accounting and ensure uniformity in the presentation citizens' common equity fund or capital funds employed in the government entity, result in reduction of illusionary accounting, promote transparency and alignment of the ideals of international public sector accounting standard with best practice in financial reporting in the public sector.

The present study provides proper understanding of 'consolidated fund' in the international and domestic context in literature which has been lacking over time because disclosures relating to changes / movements in public equity fund or net financial position were not given in financial reporting of some sovereigns. The research output and deliverables of this paper may likely influence amendments of some of the legal instruments that empower operation of certain public funds (for instance, in Nigeria), strengthening of the seemingly loop-sidedness and streamlining public fund accounting and presentation in government sector financial reporting. Hopefully, the deliverables of this research would lead increased efficient fund accounting and effective public financial management, good national governance and ultimately leads to accelerated growth and national development in the economy.

The scope of this study is conduct comparative review of public fund accounting practices, especially consolidated fund and capital development fund accounting (where appropriate) in the central treasury of Nigeria, South Africa, Australia, United Kingdom and USA. The comparative review and evaluation of consolidated and capital development fund accounting as major components of public funds balances in the annual financial reports of Nigeria and four other countries spanned a total of 12 consecutive financial years from 2004 to 2015. This involves analytical evaluation of the existence of legislative instrument that authorised establishment and operation of the consolidated revenue fund and capital development fund in each of the sovereign entities using the "observed " / "expected" numerical values of variances in the qualitative attributes. Second, the paper assessed uniformity of sub-fund items in the composition of consolidated fund balances presented in the financial statements of the five evaluated entities based on analysis of differences or variances from observed / "expected' numerical values of qualitative or quantitative attributes of this fund item. Lastly, we measured the differences or variances derived from the "observed / "expected" numerical values of the quantitative financial element of both the consolidated and capital development funds as duly reported in the annual financial statements of the entities.

The rest of the paper is arranged as follows. Section two presents the review of literature. The research design and methodology of research are provided in section three. Analysis of data, results of the research, interpretation and discussion of research results are presented in section four. Summary of findings; conclusions and recommendations are contained in section five.

SECTION 2: LITERATURE REVIEW

2.1 Conceptual Literature

Fund accounting in the context of government entity refers to the arrangement of all the items of government revenues, expenditures, transactions, assets and liabilities as well as budget head items in fund accounting structure. Oshisanmi (1992) defined public fund and fund accounting as 'a separate and accounting entities' in which resources are held, governed by special regulations, segregated from other funds and established for specific purposes on which resources of the funds may be expended. Abdulahi (2009) stated that fund accounting as an accounting system that emphasizes accountability rather than profitability and it is used by non-profit organizations and governments. Public fund accounting has been described by Oshisanmi (1992) as accounting processes adopted in accounting data capture, recording of fiscal accounting transactions and proper presentation of the outstanding balances in quasi-permanent capital fund employed in a government entity. Consolidated revenue fund is a type of government fund account in which all revenues of an entity must be entered before its dispositions. Capital development fund is a special fund to which public capital expenditures is recorded (FGN, Finance (Control and Management) Act, 1958). Consolidated fund and capital development fund respectively exist and maintained in the central treasury of different governmental entities. These two types fund accounts together with other variants of fund accounts constitute core components of citizens (or taxpayers') equity in government-wide accounting (FGN, 1957; Australia, 1900, FMA, 1997).

Public fund or taxpayers' equity fund accounting within the context of international public sector's government-wide accounting, and stewardship (accountability) reporting can be regarded as those public fund accounting head-items to which the capital employed in an entity belong to the citizenry or tax-payers of the sovereign. Consolidated fund or general fund is considered as government fund account to which annual surplus of revenue over aggregate public expenditure is transferred and retained for future uses. It has been empirically observed that the consolidated or general fund (citizens' equity fund) is also an account to which accumulated capital reserves and losses arising from revaluation of government fixed capital assets are charged. It is also the account to which extra-ordinary gains and losses / adjustments that arise in financial activities in the government treasury are retained or written-off. Other fiscal transactions are likely to be charged or treated under the consolidated or general fund; but such treatments depend on the prevailing domestic legislations on public finance and accounting in each jurisdiction. Therefore, it is expected that public fund accounting can differ slightly from one sovereign entity to another.

From the international perspective, operation of consolidated revenue fund and CRF accounting in the UK, USA, Nigeria, South Africa and Australia are guided by the provisions of extant legislations. Thus, consolidated revenue fund is seen as the account to which taxes and other revenues are deposited and from where funds are withdrawn in order to defray the cost of public services. Consolidated Revenue Fund is therefore considered as a term commonly used in many countries to describe the main treasury (cash and bank) account of sovereign government entity or sub-governmental entities to which taxes, general revenues and other public money are first remitted before dispositions. Consolidated fund on the other hand means the appropriation of surplus revenue that has effectively transferred as reserve public fund and the residue of other statutory resources as stipulated in extant laws.

There exists extant public finance legislations that authorised the establishment of consolidated (revenue) fund in the national treasury of the sovereign entities covered in this study. Example, in South Africa and Australia, consolidated fund is treated as public fund, but in the case of USA, it is referred to, as general fund or net position (net-worth). Her Majesty's Treasury of the government of the United Kingdom (Constitution of the Republic of South Africa, Section 1986; Constitution of the Australian Government, (1900); Consolidated Fund Act of 1816 and Government Resources Act (GRA) 2000) Her Majesty Treasury of the Government of United Kingdom; Constitution of the US Federal Government and Treasury and Finance Act, (2005) of the Government). However, we observed that there were no verifiable legal instruments that granted any permission for establishment, operation and rendition of capital development fund balance in the corporate financial reporting for the rest four sovereign entities. As a result, capital development fund / CDF fund balance were conspicuously omitted in the annual financial statements rendered by South Africa, Australia, USA and the United Kingdom respectively. It is further observed that there were special legislations enacted by the US federal and state government that authorized the creation of Railroad fund, Highways Funds and other public infrastructure fund and that these special capital project funds were not mixed-up with the consolidated fund, general fund or capital development fund in the USA's public fund accounting.

Section 81 of the Constitution of the Australian Government (1900) provides a source of legislative authorization to the operation of consolidated fund or contributed equity in Australia. In South Africa for instance, the Constitution of (1996) authorizes the operation of consolidated fund in the national treasury of South Africa. The US Constitution of (1890) provides legislative authorization to the operation of general fund to the federal treasury of the USA's government. In the case of the United Kingdom, the Act of Parliament, 2005; Consolidated Fund Act of 1816 and various annual Consolidated Fund Acts (2004 – 2015) in addition to the initial public finance Act that represented the main sources of legal instrument that empowers Her Majesty Treasury to operate, maintain and render consolidated fund balance in the financial report of the UK's government.

Finance (Control and Management) Act of 1958 and section 85 of the Nigerian Constitution (1999) provide legislative authorization for establishment, operation and maintenance of development fund or capital development fund (CDF) under the Nigerian public fund accounting model. This capital development fund account aspect of government accounting is primarily established for recording capital expenditures of government entity at all times (Nigeria's Finance (Control and Management) Act 1958). The Act provides that development fund account should be maintained in government sector to which all capital expenditures are recorded. The corresponding entries of the capital expenditure originally credited to development fund which ought to be captured in fixed capital asset account or written-off as expense item in the year of acquisition as it was the case in the old cash basis method.

In the contrast, there were no legislative instruments or sources of legal authorization for establishment, operation and rendition of outstanding balances of capital development fund in the central treasury of Australia, South Africa, United Kingdom and USA for the 2004 – 2015 / 2016 financial years. However, it was observed that In the US government, it was observed that series of federal / state capital project funds were enacted, such as Railroad Fund Act; Highway Fund, and other Public Infrastructure Development Fund for public capital spends. These special public capital funds established by laws and maintained in the USA's federal treasury but it appears that these capital project fund were not recorded / reported as capital development fund in the annual financial statements. These public capital fund accounts maintained in the US are treated and accounted for outside the consolidated fund in the sovereign balance sheet. Therefore, the practice of capital development fund is a predominantly Nigerian public fund accounting phenomenon which is largely at variance with the practice in other jurisdictions.

Thus, the study concludes that the practice of public fund accounting, financial reporting architecture and format for presentation might differ from country to country. But its application in some jurisdictions including Nigeria hinges on the provisions of sovereign constitution, public laws guiding government accounting, public finance, auditing and financial reporting and by extension, compliance to the rules of laws. Oshisanmi, 1992 and Anyafor, 1994 explained that public funds accounting within the Nigerian government entities have been established as part of financial control for earmarked resources, and to ensure compliance with extant rules, and administrative requirement~~s~~. Contextually, the practice of capital development fund is a predominantly Nigerian public fund accounting phenomenon which is largely at variance with the practice in other jurisdictions.

2.2 Fund Balances in Government Financial Reporting

Sources of legislative instruments that authorised the establishment of fund accounting head-items has direct and over-riding effect in accounting data capture and presentation in the financial statements and compliance to extant laws guiding public finance, auditing and management of financial resource in an entity. Public fund accounting involve the practice of capturing financial transactions and pertinent accounting adjustment events in consolidated fund of sovereign entity as well as capital development fund (CDF) in those countries that adopted CDF as integral part of its public funds in public sector accounting and financial reporting. Furthermore, accounting for public funds encompasses recording of pertinent accounting entries in the CRF and CDF but extend to representation of the carrying fund balances in a consistent and reliable structural pattern in audited annual financial statements for both internal and external uses.

Similarly, for the comparative analysis and verification of the legitimacy of the consolidated and capital development funds alongside their faithful representation, accounting information utility and reliability of as constituents of core public equity fund in financial position of government entities in the present study necessitate comparison of the "observed" legislative instruments or source of laws that authorised the establishment, operation and rendition of these two fund balances in the annual financial statements To facilitate comparison of the public fund accounting pattern among five nations, Nigeria is considered as the pivot focal entity; the “observed” recorded / reported attribute of consolidated fund and capital development fund in financial reporting of the entities represented dependent variables (X_1, and X_2 “expected” attribute of these two public funds are the control variables ($Y_{1,}$ and Y_2) in our research models. Similarly, to assess and determine the degree of uniformity of the sub-fund items in the composition of consolidated fund balances that were presented in the sovereign financial statements, variance derived from the “observed” (X_1, and X_2 and “expected” ($Y_{1,}$ and Y_2) of the qualitative attributes of consolidated fund is adopted / used. Thirdly, for determination of differences in reported consolidated capital development fund balances in the sovereign balance sheets derived from the “observed” (X_3, and X_5) and “expected” ($Y_{3,}$ and $Y_{5)}$ in numerical values of quantitative attributes of the two funds were adopted.

2.3 Theoretical Frameworks of Public Funds Accounting and Reporting

Theoretical framework that guide accounting for public funds and rendition of fund balances as the core public equity fund, brief theoretical literature and the general principles of the international public sector accounting practices and in corporate financial reporting of sovereign government entities are presented in this sub-section.

2.3.1 Theories of public funds accounting and financial reporting practices

First, the sources of legislative instruments were invoked as veritable reliable reference of the theory and practice of public fund accounting, and from the legal framework perspective of the Nigerian model, section 80 (1) and 83 (1), of the Nigerian 1999 Constitution provide the legal authority on the establishment, operation and rendition of the Consolidated Revenue Fund in the general government sector (FGN, 1999). Finance (Control and Management) Act 2004 also provided for establishment of ‘Development Fund’. Finance Act (1958) further specified that government accounts be arranged and operated on fund basis. It is pertinent to state that these Nigerian legislations that authorised the operation of CRF and CDF were originally diffused into the Nigeria’s government accounting system by the British colonial government at the commencement of government accounting and financial administration in Nigeria.

Section 162 (1) of Nigeria’s 1999 Constitution expressly stipulates that the Federation Account as the account “into which shall be remitted all revenue collections by the Government of the Federation, except proceeds from personal income tax of the personnel of the Armed Forces. Thus, financial and legal implication is that the consolidated revenue fund account constitutes part of the core equity capital fund in the Nigerian model. In this sense, the Nigerian citizens are seen as the real owners of the residue balance in the Federation Account (Fund). For this reason, the federal government owes the electorate a duty to provide full information disclosure on movement / changes the consolidated revenue fund rendered in the public domain.

Viewed from the effect of the force of extant laws, it is apparent that the accounting system and treatment on capital development fund and the rendition of capital development fund accounting in the Nigerian model to be greatly at variance with the practice in the other comparable sovereigns in this study–at least in compliance to her domestic laws. From the conceptual, theoretical and the generally accepted international public sector accounting practice, funds disbursed for acquisition of fixed capital assets (of $5000 and above) as public capital expenditure, should conventionally be credited in the treasury main cash book and its corresponding debt entries entered into the fixed capital asset accounts and rendered as fixed assets in the financial statements. It can be concluded that the treatment of government’s capital expenditure as capital development fund as one of the core components of public equity capital fund instead of "as fixed capital assets' in the Nigerian government's fund accounting system requires further scrutiny.

With the development, adoption and implementation of the international public sector accounting standards (IPSASs) in the selected sovereign entities and in several others globally; the IPSASs prescribes that surplus annual revenue (otherwise referred as balance from the statement of comprehensive income) should normally be credited / added (subtracted) in the public (taxpayers') equity fund. It is important to state that four of the evaluated sovereign entities had fully implemented and rendered IPSASs compliant financial statements with the exception of Nigeria. However, it is necessary to state that Nigeria has only partially implemented the IPSAS accounting (modified cash-based accounting systems between 2012 and 2015. This situation can be used in part to explain the non-inclusion of fixed capital assets in its annual financial statements which also represented remarkable disparity in Nigeria's financial reporting from the rest.

2.3.2 Specific theories of public equity fund accounts / fund accounting

The legalistic-environment model in government sector accounting; the rule-of-law theory as well as the structural vis-à-vis the stewardship theory of accounting. This is also known as legalistic--environmental and compliance model – which emphasises compliance to existing laws of government accounting i.e., rule-of-law theory; transaction and accounting "event" model; the measurement of value model (Porwal, 2007). The value measurement model and accounting information, communication and interpretation models also represent some of the core eclectic theory supporting accounting for consolidated revenue fund (CRF) and capital development fund in government entities where these two fund accounting head items have been properly operated, maintained and reported (Porwal, 2006), Chan, 2012).

The International Public Sector Accounting Standards (IPSAS) model developed by the IFAC, (IFAC (IPSAS), 2004); Nigeria's generally accepted accounting principles (GAAP) also represent source of standard practice on public fund accounting and financial reporting. Finally, the Federation Account Allocation Committee (FAAC)'s "Financial Reporting Standard" is viewed as Nigeria's home-groomed government-wide financial reporting standard and the precursor to the international public sector IPSASs accounting standards. Based on the above enumerated hybrid set of rules (laws), models, principles, practice and the Nigerian GAP for public sector; the Nigerian government accounting and reporting system represent rules-plus-principles based. Thus, theory of public fund accounting has been tacitly framed as mixture of compliance to rule-of-law theory and intertwined with principles and rules-based accounting practices.

2.4 Comparison of Public Funds Accounting in the Selected Sovereign Entities

The sources of legislative instruments for authorization of the establishment, operation and management of public funds in public treasury, legitimacy, reasonableness and relevance of public fund accounting head-item (composition) in financial accountability formed the foundation of analysis conducted in this study. These are the guiding principles for stewardship reporting and ascertainment of faithful representativeness of fund balances and usefulness of such fund balance in government-wide financial statements and in measurement of financial position are considered in the empirical reviews reported here as proxy of researched papers.

The reason for reviewing research papers on the topical accounting of the public equity fund / and financial reporting is due to paucity of published works public capital fund accounting. Second, the international public sector accounting and financial reporting standards was implemented within the past one decade and many countries are still grappling with its full implementation; thus, empirical works in this area is scarce. For this reason, practical evidence of the trend pattern of the consolidated revenue fund and the isolated case of capital development accounting in Nigeria were predominately incorporated as proxy for empirically researched papers in this sub-section of this paper. This empirical review approach provided useful information related to discrepancies in public fund accounting, disparity in their legal authorization and also of the reported fund balances in the selected entities

Allan (2005) conceptually reviewed government funds, the unreserved fund balance and reserved fund balance in management of public funds in public treasury in the USA. Allan's paper notes that maintenance of fiscal stability as an important factor in evaluation of financial position, treasury solvency and credit worthiness rating of government entities. The author explained that there is no nationally uniform standard regarding appropriate level of reserved or unreserved fund balance that government entity should maintain, or other financial resources for contingencies with much of it devoted to sustaining budget stabilization fund at central treasury. Allan further explained that fund balance does not necessarily refer to cash/ bank balance or the difference between revenues and expenditures. Rather, fund balance is the cumulative difference of all revenues and expenditures from government generated resources. Fund balance can also be considered as the difference between fund assets and fund liabilities, which has been referred to as fund equity (Allan, 2005). Allan (2005) concludes that the unreserved fund balance ratio is very important because it is often used as a measure of financial health in analysis of sovereign financial reporting – fund balance that equals five percent of budgeted expenditure is deemed prudent (Moody, 1990 cited in Allan 2005).

(2) While expressing audit opinion on Nigeria's 2015 annual financial statements, the Head of Supreme Audit Institution Ajine in FGN (2015) observed that there were remarkable discrepancies existing between the provisions of public finance laws and constitutional authorisation of the establishment, operations and representation of the consolidated revenue fund (CRF) and capital development fund balances in financial reporting. The implication of the of the incumbent Nigerian Auditor-General of the Federation is that the existing fund accounting system and financial statements may not be accurate, fair and true and reliable for decisions.

(3) Comparative review of the contents of annual financial statements of the governments of the UK, USA, South Africa, Nigeria and Australia showed are still maintaining the Consolidated Fund but with different sub-fund items and descriptions. For example, consolidated fund is referred as the "general" in the federal treasury of the US government with the citizens' equity fund called the net position – which has been reportedly reported in negative values. This is a clear indication that the US government has predominantly relied on public debt capital fund in sustaining its federal treasury and this trend is duly replicated in her huge public debt portfolio and deficit budget balances over the years.

(4) Comparative review of the consolidated and capital development fund accounting in the case of Nigeria indicated that the operation and rendition of the consolidated revenue fund account and CRF fund balances were permitted in the Finance (Control and Management) Act, 1958 as amended, However, the components of consolidated revenue fund (as it is regarded in Nigeria) included attributes / sub-CRF fund balances that are inconsistent with items in composition of consolidated fund balances in the other four sovereign entities. This implies (on the surface of it) that the consolidated fund accounting in Nigeria is slightly at variance with the treatment given to the same fund in other countries and it suggests that consolidated revenue fund accounting in Nigeria may be defective.

The annual audit report and statement of compliance issued the Comptroller and Head of National Audit Office in the UK, indicated that consolidated fund account was maintained in HM Treasury and in the financial statements. The items making up consolidated fund reported by H.M Treasury department included surplus revenue, profit and dividend due and payments transmitted by government owned enterprises to the central treasury (HM, UK Treasury, 2008 - 2015). Based on the comparative study on the current reporting of CRF and CDF in financial statements in four countries has proved continued inclusion of capital development fund balance in the Nigeria's FGN annual accounts and retention of CDF as public fund in federal treasury as slightly different from the practice in the other sovereign. This treatment could arise either by error committed in drafting of FGN public finance laws or misinterpretation of the intent of the provision of the extant laws.

In related development, comparative review of the contents of annual financial statements of the governments of the UK, USA, South Africa and Australia showed that none of these four sovereign nation maintained capital development fund but to the contrary, Nigeria recorded fixed capital assets and reported balances of its capital development fund in annual financial statements throughout the 12 financial years covered in this study. It appears that the treatment given to capital development fund and CDF fund balances were in subtle compliance to the rules of law for the country or due to apparent misinterpretation of the source legal instruments over the years.

(5) The review confirmed that South Africa legitimately adopted consolidated fund in its national treasury and representation of consolidated fund balance in annual financial statements (South African Constitution 1996). Unlike in the case of Nigeria, government accounting and financial reporting has grown, modernized and improved remarkably, South Africa is one of the African countries that has already / successfully implemented the IPSASs full accrual accounting and financial reporting system. The components of consolidated revenue fund are very similar and consistent with items in composition of consolidated fund balances in the other four sovereign entities. South Africa does not treat and transfer the aggregate value of its annual public capital expenditures as capital development fund but as fixed capital assets in line with the IPSASs regime.

(6) Review of annual financial statements of the Commonwealth Treasury of the Australian Government, confirmed of consolidated fund accounting was legitimately adopted in the national treasury and represented in the annual financial statements. It also indicate that Australian government was one of the countries that implemented accrual-based government accounting, outcome-based budgeting and public financial management system well ahead of the development, adoption and implementation of the IPSASs full accrual accounting and financial reporting system. The composition of consolidated revenue fund in the Australian corporate report is very similar and consistent with items in composition of consolidated fund balances in the other four sovereign entities. Public capital expenditures is not recorded and reported as capital development fund in the Australia's government financial reporting but as fixed capital assets in line with the IPSASs regime.

2.5 Limitations of the Reviewed Studies and Gaps Identification

The reviewed studies provided sufficient empirical facts (data) and evidence showing defects / disparity in the pattern, nature and context of public or citizens' equity fund being reported in government entities in different sovereigns. Thus, these papers have contributed (their quota) to the development of fund accounting practice in the literature. In essence, the present paper provided pertinent conceptual and practical expositions on public funds (CRF and CDF) accounting in the government sector accounting literature, through comparative review of the nature, structure and relevance of public fund accounting in different countries and through the process identify defects in state fund accounting in some jurisdiction. Therefore it makes significant efforts to reduce the existing information gap and knowledge in this field of public fund accounting and financial reporting.

Section 3: METHODOLOGY

The ex-post 'facto' quantitative analysis based on archival information retrieval approach of the information content of published financial statements using accounting data / financial statements evaluation method with absolute percentage margin of differences as analytical technique in a two-way test of variances in the comparative reviews was employed in the study.

3.2 Sources of Materials used in Model Development and Analysis

The study focused on a comparative review of public fund accounting analysis and evaluation of these fund balances as presented in financial statements of the Federal Government of Nigeria, Republic of South Africa, Commonwealth treasury of the Australia Government, Her Majesty's Treasury of the government of the United Kingdom (UK), the federal Treasury of the Government of USA respectively, for 12 consecutive years. The sovereign treasury of these five selected countries represent the focal institutions in this paper. These sovereign nations were selected as representatives of government entities in this international review and comparison public equity fund or general fund and capital development fund accounting for pertinent reasons given in section 2.2.

Australia is widely recognised as a leading nation in public sector accounting and epitome of best practice in government financial reporting. South Africa on its part is a rapidly development country in Africa with a reasonably improved government sector accounting and vastly improving public financial management systems / financial reporting. Nigeria was chosen due to the observable sub-optimal public fund accounting systems and fund balances being presented in its financial reporting. Furthermore, Nigeria was chosen as a pivot institution because it has consistently operated both consolidated revenue fund and capital development fund from the time of her independence in 1960 up to the cut-off period of this research. It is believed that the pattern of government fund accounting in Nigeria's treasury and their reported balances in the nation's sovereign balance sheet is different (Ani, 2017; Ajine, 2015).from the treatment of similar funds in other sovereign financial reports.

Government of the United Kingdom transmitted to Nigeria the British model of government accounting at the inception of her nationhood. Thus, the public fund accounting in the UK is included as a medium to verify or moderate whether there is uniformity between the UK and Nigeria's public fund accounting model with the rest of other selected entities. Public fund accounting (general fund) since they represented as integral part of net position or net-worth in the case of the USA's government accounting model was included in the analysis owing to the size of negative net position, huge federal public debt, size of general government sector of the USA government; and development fund (for Nigeria) the level of development in the practice of government accounting and corporate financial reporting in both sovereign.

Data sets used in the models and analyses were obtained from secondary sources. These were extracted from the internet published annual financial statements of the central treasury of the respective national governments, and in the case of Nigeria, gazetted Nigeria's (FGN) financial reports. Archival data retrieval system through document study with rating score method was adopted in extraction of raw data sets from annual financial statements of selected entities from the year 2004 to 2015. In isolated cases, additional data / information were sought for and obtained from Nigeria's federal audit department and federal treasury. Similar efforts were made to obtain further clarifications from the USA's government accountability office and the other major accounting / financial reporting agencies consulted (where necessary). The extracted data / information from the sovereigns financial reports were applied in the comparative review and analyses of the nature, structural pattern, legality and relevance of public fund accounting and government financial reporting in Nigeria and other countries (USA, Australia, South Africa and United Kingdom) carried out in this study.

3.3 Model Specification, Construction and Development

Theoretical framework that guided model development and construction in this this research are the eclectic theories of legislatic-environmental model in accounting, theory on rules-of-law, structural model of public fund accounting with stewardship reporting model, the value measurement model and accounting information / communication cum financial reporting model of the public sector. The description / narratives of these theories have been presented in sub-section 2.3 of the preceding section. These model building followed value measurement method for public financial resources or the flow-stock aggregates that comprised revenue and expenditure; assets and liabilities equation functions as adopted in Chan (2012). In this modelling framework, Assets (t+1) minus Liabilities (t+1) = Net Assets (t+1). Similarly, total liabilities fund equation in government entity's balance sheet has been expressed as public core equity fund plus total public debt and deposit fund correspond to total asset; that is, Total PCF + Total Public Debt + Deposit Fund = tl+1 and Total Liabilities Fund = Total Asset (Chan, 1989).

The configuration of the models' variables and specification of equation functions in development of models were arranged sequentially, starting with the first three models related to consolidated fund (CRF) namely; legislative instrument(s) and source of authority of establishment and rendition of the two public funds (CRF and CDF); common fund accounting items in the composition of the CRF and CDF as core public fund balances in financial reporting and identification of convergence (uniform fund accounting) with comparison of actual recorded fund balances in the entities' financial positions. Then, followed with the latter, the models developed for capital development fund; particularly on legislative instrument(s) and source of authority of establishment and rendition of the CDF, and a comparison of actual recorded fund balances in the entities' financial positions.

The core public fund account head-items duly established by public finance laws; operated and recorded or captured as year-end closing fund balances in the financial statements of Nigeria's federal treasury and the other four countries were employed variables in the study. The structural form, description and composition of these government funds are enumerated here. In line with the specified research objectives under introduction in section one, specification of the models of research; dependent variables were the 'observed' or 'actual' reported fund account balance ("O" = X) and the "expected" recorded or reported public fund balance (consolidated revenue fund and or capital development fund" ("E" = Y) as the independent variables.

Thus, qualitative attributes of legislative instruments for the authorization of operation of accounting for consolidated revenue fund (CRF) and capital development fund (CDF) (where applicable) and rendition of year-end reported fund balances in Nigeria and the other four sovereign entities treasury (South Africa, Australia, UK and USA) derived through archival information retrieval method were employed for analysis the study. The observed elements of consolidated (Revenue) fund and CRF balances presented in the financial statement of selected entities is taken as dependent variables and expected elements of the same fund as independent variables in each of the first three models. Nigeria is used pivot focal entity (Nigeria) among all the evaluated sovereigns.

A simplified numerical ranking score system was adopted in allotment of values to the extraction of “observed” and “expected” objects that related to either consolidated (revenue) fund and capital development fund respectively in the content study of the sovereign’ financial statements. For dependent variables (Xs) an “observed” attribute of fund accounting event is given rating score grade 1 (one) for a full and complete capture of data; 0.5 (half) for partial facts / data and zero (0) for non-existence of any “observed” event; likewise, a rating score point of one (1) is accorded to an “expected” attributed of fund accounting attribute based on evidence of sources of information, half or 0.5 for partial representation of facts and zero for non-existence of evidence of source of the “expected” attribute. The raw data derived as the proportion of sum total of dependent variables (X) and independent variables (Y) were used in computation and statistical test of the “absolute percentage margin of variance or differences between and / or against the total value of cohort sovereigns or for each of the six models developed and hypothesis testing.

Hypotheses formulation and Development:

Statistical hypotheses to test variance or differences between “observed and “expected’ attributes these fund accounting under three capsules; legislative instruments which authorised operation of each fund account; sub-fund items in composition of the two public fund and comparison of variations / differences in reported fund balances among the selected entities.

Hypotheses of research for the comparative analysis and evaluation of legislative instruments that authorised consolidated fund and capital development accounting, composition of consolidated and capital development fund as well as faithful representation of outstanding consolidated fund and capital development fund balances in the models were formulated in null form and are stated as:

Hypothesis (1): Ho_1: Domestic legislations that authorise operation of consolidated revenue fund in the treasury of selected sovereign entities were not existent.

Hypothesis (2): Ho_2: There was no uniformity in accounting treatment in consolidated fund accounting and composition of items the reported (CRF) fund balances shown in financial statements in the treasury of the entities.

Hypothesis (3): Ho_2: The quantitative elements (domestic monetary values) of consolidated fund balances shown in financial reporting were not faithful representative the transaction event capture in the entities.

Hypothesis (4): Ho_4: The extant legislations did not authorise operation of capital development fund (CDF) accounting in the treasury of sovereign entities.

Hypothesis 5: Ho_6: The quantitative elements of the carrying capital development fund balances in financial reporting were not faithful representatives of public capital spend of the entities.

Criteria for measurement and testing of hypothesis in the models are as follows:

(1) Ho_1: if value of the “absolute percentage” margin of variation within cohort entities’ “observed”-to-expected” attributes of extant legislative authorisation consolidated revenue fund (CRF) accounting and capital development fund (CDF), composition of items making up CRF and CDF balances and the qualitative objects; is greater than (>) or equal to a minimum of 0.9 on scale of 1 (at 10 percent level of statistical significance); accept Ho and reject Ha. If otherwise, adopt Ha. Then for variance against the group - in the second stage, if ‘absolute percentage margin of error of variance’ < 0.5, accept Ho but if > Ho reject. A similar criterion for hypothesis test applies in all the models developed, except the fifth and analysis of data, and decision rules for the test results.

The models are given as:

(1) Legislative authorization of operation of consolidated funds.

(2) Congruence in composition of consolidated fund balance items

(3) Measure of Variation in values of quantitative attributes of CRF Balances

(4) Legislative authorization for operation of development fund items.

(5) Divergence in quantitative attributes capital development funds

Equation functions for model used for analysis, measures and hypothesis testing of the relevant models as follows:

APMV = $X/Y_{1, 2, 3, \text{ and } 4}$ = f (“O”/ ‘O’ (‘E’) (1)

and for the fifth and last model

APMV = X/Y_5 (f (“O” / ‘O’ (‘E’) = {(X/Y_5) (– 1)} (2)

The evaluation procedure and analytical techniques approaches adopted include the “Financial Statements Evaluation System, employed as the main tool of analysis. Simple descriptive statistics based on “absolute percentage or margin” of variances difference(s) between ‘observed’ and ‘expected’ accounting events / reported fund balance at 10% level of significance was adopted. The variance of the pivot entity (Nigeria) was measured against variance of the group in model five only. This analytical technique build on the premises that the derived “observed” to expected values of the qualitative and quantitative attributes of extant legislative instruments that grant authority for operation of consolidated and development funds as compliance to rules of law. The use of sub-fund items in composition of consolidated fund and uniformity or convergence in quantitative objects helps in proper comparison of fund accounting systems. Divergence in development fund in the case of Nigeria provides useful framework to faithful representativeness of these two fund balances in sovereign financial position.

SECTION 4: RESULTS OF ANALYSIS AND FINDINGS

Results of analyses and tests of this study, together with the relevant tables of test data and result of analyses are provided in this section. Analytical evaluation of public fund accounting was conducted to confirm their legitimacy, congruence in composition and degree of faithful representativeness of consolidated and capital development fund balances reported in annual financial statements of the evaluated entities. It also measured the degree of uniformity in consolidated fund balances reported by the five entities and divergence between the entities that maintained development fund against the others. The latter test aids the interpretation given to public fund balances (consolidated and capital development funds) as tax payers find in sovereign financial statements as medium of communication accounting values of such liabilities (capital employed).

4.1 Analysis and Test Results

Summary descriptive statistics of numerical data analysis of the consolidated and capital development funds used in computations and derivation of test results in the relevant models of this study are given in Table 1 here**.**

Table 1. Summary Descriptive Statistics of Funds Numerical Analysis of the Five Sovereign Entities (2004 - 2015)

Variables	Observed (X)	Expected (Y)	Ratio 3	Mean Value	Max Value	Variance VAR	0.1 Level of Significance
Model 1.	60	60	1.00	1	1	0	*
Model 2.	54	60	0.9	0.9	1	-0.1	*
Model 3.	54	60	0.9	0.9	1	-0.1	*
Model 4.	12	60	0.2	0.04	1	-0.8	**
Model 5.	6	60	0.1	0.02	0.5	-0.9	**

Notes: Hypothesis test accepted at values equal to and above 10% Significance level and those below the minimum limit is rejected.

SOURCES: FGN (2004 - 2015); Author's Compilation (2017)

4.1.1 Model 1: Legislative authorization of consolidated fund accounting

From Summary of numerical data analysis of qualitative attributes in table 1, total sum of "observed / expected" of the qualitative attributes of extant legislative authorisation the consolidated fund accounting in the sovereign entities is equal to 1 or 100% (60/60).

Test result is 100% and based on test criterion of this model given in section three applies. Ho_1 is 100 > 90% at the 10% level of significance. Therefore, Ho_1 is accepted and Ha_1, rejected.

4.1.2 Model 2: Sub-fund items in composition of consolidated fund balances

Total sum of "observed / expected" of the qualitative attributes of extant legislative authorisation the consolidated fund accounting in the sovereign entities in table 1 gives 0.9 or 90%; (that is 54/60). Thus, model two test yield 90%; and 90% is equivalent to 90% at 10% significance level. Based on prior specified decision rule; Ho_3: 0.9 = 0.9, therefore, Ho_1 is accepted and Ha_1, rejected.

4.1.3 Model 3: Convergence in consolidated fund balance quantitative attributes

Total sum of "observed / expected" of qualitative attributes of the reported consolidated fund accounting in the sovereign entities is equal to 0.9 or 90%; (54/60). Table 4.1.3 in the appendices provide summary of numerical analysis of qualitative attributes of "observed' / "expected" values of convergence in reported consolidated revenue fund (CRF) balances. Test result yield 0.9 or 90%; and 90% is equal to t-tabulated @ 90% at 5% level of significance. Based on the specified decision rule; Ho_3: 0.9 = 0.9, therefore, Ho_1 is accepted and Ha_1, rejected.

4.1.4 Model 4: Legislative authorization of capital development fund accounting

Summary of numerical analysis of qualitative attributes of "observed' / "expected" values of the qualitative attributes of legislative authorization of capital development fund (CDF) accounting items are given in Table 4.1.4 in appendix pages. Total sum of "observed / expected" of the qualitative attributes of extant legislative authorisation of consolidated fund accounting in the entities is 0.1 or 10% (6/60).

Model ‘four’ result is 10%. “Absolute percentage margin” of variance of the “observed / ‘expected” quantitative attribute of legislative authority of CDF is 10% (6/60); and 10% is less than 90% at a target 10% significance level. Based on prior decision rule; Ho_3: 10% < 90% and Ha_4 is accepted and Ho_1, rejected.

4.1.5 Model 5: Divergence in quantitative attributes of development fund

Numerical data analysis of the divergence in qualitative attributes of “observed’ / “expected” values of the reported capital development fund (CDF) balances are given in Table 4.1.5 in appendix page. Total sum of the “observed / expected” of CDF in entities is equal to 0.5 / 12 – (100); = −95.5%.

Result of model 5 test is –95.5% and –95.5% > 90%; and 90% at 10% significance level. Thus, Ha_5 is adopted and Ho_5: rejected.

4.3 Interpretation of Results with Synthesis

(1) The results of analyses from model one to three have shown that there is a statistically significant positive relationship in treatment in the nature, pattern, and relevance of consolidated revenue fund or general fund or taxpayers’ equity fund (net-worth or net position). They confirmed also that the constituents of consolidated fund were duly reported as representatives’ of citizens’ equity capital fund in all the five selected sovereign entities. With this research result, this paper has confirmed or attested that consolidated fund was commonly and consistently reported as core constituents of public equity fund in the five selected countries as well as in several entities.

(2) The result of test on legislative instruments on authorisation of the establishment of capital development fund and the legitimacy of sustenance, rendition of development fund account balance as core component of public fund being presented in the Nigerian model has implemented in compliance with the country’s public finance law (Finance (Control and Management) Act 1958). But it is uncertain if the right interpretations have been given to the intendment of that piece of legislation in the Nigeria federal treasury. In this sense is more advisable to the relevant authorities in Abuja – Nigeria to revisit and review that legislative instrument.

Nigeria is not just the only sovereign nation that grapples with some degree of capital development and special project funds. The US treasury is also having its fair share of the practical challenges in providing smooth and reliable representation of its capital project and infrastructure investment funds. It is necessary for the public finance authorities in the US federal treasury and the general accountability office to conduct comprehensive review and streamlining of the numerous capital project fund and reflect realistic values of such fund as part of public funds in liability side and fixed capital assets on the other side. This will help the US federal treasury in provide a better picture of its assets, liability and net financial position in future. Meanwhile, Nigeria is the only entity in the cohort that reflected capital development fund in its financial reporting though with some reservations. Further scrutiny on the transaction event entries in Nigeria’s development Fund (CDF) accounting and its annual reported carrying balances in the financial statements of the Nigerian federal treasury revealed that a number of extraneous accounting adjustment items were captured under this fund accounting item erroneously created, maintained and without any corresponding fixed capital assets on the asset side, even during the IPSASs adoption transitional period. The inclusion of such sub-CDF fund items appear irrelevant to the public equity capital fund in Nigeria’s sovereign financial position.

4.4 Evaluation of Results of Hypotheses tests (To be merged with 5.2-Discussion)

(1) Results of test of hypotheses distilled from the international reviews and comparison of the consolidated (revenue) fund and capital development fund accounting system and corporate financial reporting practices in five developed and developing countries including Nigeria revealed the following outcomes.

Model one result yields a significant positive result. This is a clear indication that the consolidated fund accounts were legally established. Result obtained in model one show that Nigeria and the other sovereign nations have consistently operated, maintained consolidated fund accounting and CRF balances public funds / as part of the citizens equity funds in their sovereign balance sheet in compliance to extant public finance laws of the respective countries and have been sustained and the balances held there-on were fairly faithful representation of the accounting transaction events. This test result is in consonance with the research hypothesis one and the first research objective.

(ii) Result obtained in the second model also shows significant positive result. It signifies that the sub-fund items in the composition of the reported consolidated fund accounts and CRF fund balances recorded and presented by the evaluated sovereign entities common and uniformly presented in their respective sovereign annual financial reporting during the reviewed financial years. The result further confirm that consolidated fund accounting and CRF balances of these entities were legitimately reported as an integral part of public funds in their respective sovereign balance sheet in compliance to extant public finance laws of the respective countries. However, the sub-consolidated fund item in composition of CRF in the case of Nigeria were sub-optimal and require extensive review and amendment in its fund accounting system. On the whole, this result is in agreement with the objective two and formulated research hypothesis.

(iii) Result from model three shows significant positive result. It signifies that the quantitative attributes of the reported consolidated fund balances in their respective sovereign annual financial statements with uniformly applied and incongruence with one another, despite slight variations that were observed in the Nigerian model. The result further confirms that consolidated fund balances of these entities were legitimately reported as an integral part of public funds in their respective sovereign entities. On the whole, this result is in agreement with the objective two and formulated research hypothesis.

(iv) The result in model four shows significant adverse result. Nigeria is the only entity that treated capital budgetary resource allocation / expenditure disbursements as capital development without corresponding accounting entry as fixed assets. This is an indication that the legislative instrument that gave legal force to capital development fund accounting in Nigeria is out-dated, misconstrued or misinterpreted in the course of its implementation. To buttress this fact, none of the other four sovereign national entities; Australia, USA, South Africa and United Kingdom (Nigeria's colonial mentors) operated, maintained and rendered CDF fund and reported carrying balances in the same pattern, configuration and transaction items as it was done in the Nigerian model. Therefore, inclusion of CDF as core public fund accounting system currently operated and maintained and constituting government common taxpayers fund balance does not project a true fair and reliable public equity and net financial position as shown in the balance sheet of Nigeria's federal treasury.

(v) Similar to hypothesis test in model four, the test of the last (fifth) model yield significant negative result. It confirms that Nigeria was the only entity that operated, maintained and reported capital development fund balances with negative values as an integral public equity fund with negative values in its annual financial statements during the reviewed periods. None of the other four countries reported capital development fund in their respective annual balance sheets. The result of finding distilled from hypothesis test and research objective is in conformity with the value measurement model and funds stewardship reporting in government accounting (Chan, 2012). The degree of divergence in legal form of CDF fund accounting and reporting or presentation of CDF fund between Nigeria and other countries very, very wide margin of differences. This presupposes that the CDF accounting in Nigeria is deficient and require immediate amendments.

SECTION 5: SUMMARY, CONCLUSION AND RECOMMENDATIONS

This accounting research study involved archival information retrieval and financial reporting evaluation approach and anchored with ex-post 'factor' content analysis of the published financial statements of the five sovereign entities. The paper undertook a comparative evaluation of the pattern of public fund accounting systems, the sub-fund item composition of consolidated and capital development fund balances of five namely; Nigeria, South Africa, United Kingdom, United States of America and Australia from 2004 – 2015. Nigeria was taken as the pivot focal institution due to peculiarities of the attributes of items that constituted consolidated fund and capital development fund balances and magnitude of divergence from similar public funds in the other sovereigns.

This comparative empirical analysis was to ascertain whether the extant laws of these countries permitted operation of such funds, reasonable level of uniformity in composition of the reported fund balances; and if there are differences in quantitative attributes of public fund balances rendered in the annual financial statements of these entities. This research provides useful insight on the perspectives, problems, practice of public sector accounting and developments in government financial reporting in post-IPSASs implementation years. In the same vein, narrows existing gaps in knowledge and literature as a result of paucity empirical studies on public fund accounting and lack of proper understanding of fund accounts.

5.1 Summary of Result of Finding

Result of model one confirmed existence of legislative authority for establishment of consolidated fund, operation and presentation of consolidated fund balance in the respective sovereign governments. However, remarkable discrepancy exist in composition of consolidated fund balances with substantial negative (debit) balance were reported in the FGN's financial statements from the other sovereigns. Result obtained in second two on a comparison of sub-fund items constituting consolidated fund balances among the five countries was uniform. Quantitative attributes of some of Nigeria's consolidated fund balance items differ slightly from those of other countries, particularly the UK that diffused consolidated fund accounting to the entity. For the measure of the qualitative attributes of the fiscal year-end carrying balances for this same fund accounting, the result of model (3) demonstrated that there was reasonable degree of similarities in consolidated fund balances in the financial reports of all the entities.

The results obtained in the analysis, comparative measurement and tests conducted on capital development fund in the fourth model; show there were no legislative authorization for establishment of capital development fund, hence the result of this test yield significant statistical variance between the "observed" and "expected" attributes of the legitimacy of the operation capital development fund in any sovereign entity. Furthermore, the analysis in this model indicate that Nigeria as the only sovereign government entity that adopted capital development fund balance as core component of public equity fund - in compliance to her own extant domestic public finance laws. In this context, capital development fund accounting is seen as an isolated Nigerian accounting phenomenon and it calls for thorough public finance legislative reviews. Similarly, result of the comparison of sub-fund items in the composition of the capital development fund balances produced a statistically significant adverse variance between the "observed" and "expected" attributes of the composition of capital development fund balance. This is an exclusive attributes of some of Nigeria's public fund accounting and demonstrated high degree of divergence from the rest of the pack with symptoms of defects. Finally, the result of measure of qualitative attributes of the fiscal year-end CDF carrying balances in the model (6) demonstrated that there was reasonable degree of disparity between CDF fund balances in Nigeria's financial reporting model from the others.

5.2 Discussion of Research Deliverables and Results

(1) Although operation of consolidated fund and representation of consolidated fund balances as core components of public equity capital fund in annual financial statements of Nigeria's federal treasury were legislatively authorised in this study, verified and attested here; some discrepancies were identified in certain sub-fund items. For example, some items of unbalanced fund transfers, and unverified static fund account items, net cash flows from public debt instruments (treasury bills / bonds issues and redemptions) were recorded into these two public fund accounts and formed part of the reported fund position over time. It imperative to note that full IPSASs accounting model were not followed in Nigeria's fund accounting and financial reporting in the 12 reviewed years. This trend is partly responsible for the divergence in Nigeria fund account with the rest entities and demonstrates that proper public fund is deep rooted in Nigeria's sovereign financial reporting system.

Based on these test results the reported outstanding consolidated and capital development fund balances in the financial reports do not reflect accurately faithful representation of Nigeria's public equity capital funds. The treatments given in consolidated in some financial years were inconsistent with the fundamental principles and practice of consolidated fund accounting in other sovereigns within in terms of the composition of CRF items and in the context of compliance to the rules-of-law. Furthermore, the items that constitute consolidated fund in the HM Treasury of the British government are restricted to: (i) amount issued from the consolidated revenue fund for supply but un-spent at year end; (ii) extra revenue receipts received; (iii) extra revenue income due but not duly received; (iv) capital reserves and gains arising revaluation / disposal of public fixed capital assets and (v) other amounts due to be paid to the CRF of the UK.

On the contrary, the items captured / incorporated as sub-items in Nigeria consolidated fund included net cash-flows from treasury bills / bonds issue and redemption, other debt related instruments, write-off adjustment of unverifiable items, etcetera. This implies that some items in Nigeria's CRF accounting system were incorrectly captured, or extraneous adjustment vouchers entered to and or inaccurately included in the consolidated fund balances. Thirdly, it was on Nigeria that operated, maintained and reported Capital Development Fund balances with negative values in its annual financial statements during the reviewed periods. Based on these enumerated factors consolidated fund balances in Nigeria were found to be significant different from and other four sovereign entities investigated. The treatment of CRF balances in the annual financial reports in Nigeria's treasury is adjudged sub-optimal, therefore, it requires urgent transformation for proper fund accounting as representative of the core public equity fund in Nigeria's sovereign balance sheet. It is interesting to note that the British government diffused consolidated fund accounting system to Nigeria at the formation.

(2) The result obtained in model two confirmed that consolidated fund accounting in Her Majesty treasury of the government of the United Kingdom consistently followed extant legislative instruments, amendments thereon and the enacted annual Acts of parliament guiding operation of the consolidated fund and rendition of CRF fund balances as core components of public equity capital fund in the annual financial statements (2004 – 2015) was confirmed. Sub-consolidated fund items making-up CRF balances shown in the financial reports of the UK's

government treasury include revenue surplus or surplus from comprehensive statement of income (SCOPE), amounts issued from the CRF for supply but not spent by year-end and returned to the treasury (unspent fund); Consolidated fund's extra receipts received and receivables including amount due and to be paid to CRF; capital revaluation reserves arising from asset revaluations *(HM Treasury's Corporate Report, 2004 – 2005; p.50 – 55).* Based on these considerations, the consolidated fund accounting system and fund balances as reflected in the financial statements of HM treasury were in compliance with extant laws that authorised it and consistently with the principles and practice of the consolidated fund reported balances with three other countries but at variance with that of Nigeria. Capital development fund was not mentioned in public finance and accounting legislations of the UK government; thus, capital development fund did not form part of the core public equity fund in the H M treasury's financial statements. In this sense, consolidated fund accounting in the UK is considered appropriate.

(3) Consolidated fund accounting in the South African national treasury of consistently followed extant legislative instruments, amendments thereon and the enacted annual Acts of parliament guiding operation of the consolidated fund and rendition of CRF fund balances as core components of public equity capital fund in the annual financial statements (2004 – 2015) was confirmed. Accordingly, South Africa's pattern of consolidated fund accounting is considered reasonable and appropriate in this study. In related development, capital development fund was not found in public finance and accounting legislations for South Africa. Thus, capital development fund does not form a part of the core public equity fund in the national treasury's financial statements.

(4) The pattern of consolidated fund accounting in the federal treasury of the US government was consistent extant legislative instruments, amendments thereon and the enacted annual Acts of parliament guiding operation of the consolidated fund and rendition of CRF fund balances as core components of public equity capital fund in the annual financial statements (2004 – 2015) was confirmed. However, the paper noted that similar problems and challenges in public fund accounting practices in the Nigerian federal treasury, net position in the annual financial reporting (between 2004 -2015 / 2015) / financial position of the US government's federal treasury is blurred because the aggregate capital development funds and debt stock held by the US federal treasury were not shown on the surface of the US government's financial reports. This makes it seemingly difficult for even the financially trained persons / external user-groups to decipher the financial statements for informed decisions. For instance the US federal treasury recorded almost US$10 trillion negative net position or net worth which from the scheme of things, is the reflection or a representation of the US government's massive public debts which appeared not fully represented in the annual financial reports but this presented in an easy-to-understandable form. Then, the array of public capital investment project funds appear not duly reported as public equity fund in the liability side and fund assets of the US sovereign balance sheets as it were. These are seeming significant public accounting issues currently prevailing in the US federal treasury that deserve immediate rectification.

Based on these considerations, the consolidated fund accounting system and fund balances as reflected in the financial statements in the financial reporting of the federal treasury of the US government, a realistic picture of either the consolidated fund or public equity fund or citizens equity fund vis-à-vis the true net-worth or net financial position of the federal treasury of the US government appear not provided in the consolidated financial statements alongside even in the accompanying notes. Based on these empirical observations, the study concludes that there are significant discrepancies in the government financial reporting in several financial years covered in this paper. For instance, the aggregate value of the USA's public debt was not clearly shown in the balance sheet when the size of US sovereign debt is readily known to the international capital market(s) quantum of most years – and the Federal legislature sometime threatens to decline approval of budget deficit approval requests. Thus, public fund accounting system of the US government share some similarities with Nigeria and slightly at variance with what is obtainable in South Africa, the United Kingdom and Australia.

(5) Consolidated fund accounting in the commonwealth treasury of the Australian government consistently followed extant legislative instruments, amendments thereon and the enacted annual Acts of parliament guiding operation of the consolidated fund and rendition of CRF fund balances as core components of public equity capital fund in the annual financial statements (2004 – 2015) was confirmed. The paper noted that capital development fund was not maintained in the Australian government accounting therefore CDF fund balances did not feature in its financial reporting during the reviewed periods; rather it recorded and reported fixed capital assets (net of depreciation) in the annual accounts. Consolidated fund accounting system and fund balances of the Australian government has been maintained in compliance to the extant public accounts and finance laws of the nation. Thus, the pattern of consolidated fund accounting is considered reasonable and appropriate in this study.

This research discovery in public fund accounting practice in Nigeria further reinforces the need for urgent reviewing, strengthening and up-grading within the first three IPSASs prior years accounting adjustment periods of implementation period.

5.3 Conclusions and Implication on Developments in Accounting Practice

The establishment of capital development fund (CDF) in Nigeria was in compliance of the country’s legislations (FGN, Finance Act of 1958)); but it is the only sovereign that incorporated the CDF as an integral part of its public fund accounts during the reviewed periods. However, there no such legislation that authorised such funds accounting in the rest sovereigns either by convention or force of laws except in Nigeria. It may likely occur due to misinterpretations of the intendment of the extant laws contained in the country’s constitution / public finance (Control and Management) Act, that prescribe the operation of capital development fund and reporting the same in the annual accounts. This seemingly defect in public fund accounting in Nigeria deserve urgent review and rectification by the Federal Government of Nigeria on one side. Furthermore, the authors observe that the public debt portfolios of the US government were not reflected in the annual financial statements for the years under review. We also was also noticed that series of public capital project fund were established, operated and reported as separate fund accounting unit entities but we did not identify where these capital project funds (Railroad fund, Highway Fund etcetera) were amalgamated and reported as either consolidated equity or statutory capital reserve fund in the US financial statements.

The observed discrepancies in the US public fund accounting are likely to impact negatively on the net position or net worth in its financial statements. The most significant conclusion and milestone of the research deliverables is that the International financial institutions (the World Bank and IMF), the International Federation of Accountants (IFAC) and the national accountancy bodies (globally) are challenged to the need to conduct further assessment of the legal instruments that authorized public fund , fund accounting and develop uniform accounting standard for the consolidated fund and indeed the public equity fund / capital employed to be adopted in the presentation of government financial statements. The introduction, adoption and implementation of international standard on accounting and financial reporting for public funds will contribute in reduction of illusionary accounting and improvement public financial governance.

5.4 Recommendations

(1) Federal Government of Nigeria is advised to review and amend the necessary public finance and accounting legislations that have authorised the establishment, operations and presentation of capital development fund, proper accounting and the rendition of outstanding fund balances in the Nigeria's financial reporting Government's fund accounting system and fund management should be urgently reviewed, and amended.

(2) The US government may wish to restructure and streamline the financial reporting architecture of government financial reporting to incorporate its huge public debt profile and bring it in harmony with both the consolidated fund including the statutorily established public capital investment trust funds (Railroad fund, Highways fund) net position or net worth which from the scheme of things, is the reflection or a representation of the US government's massive public debts which appeared not fully represented in the annual financial reports. Then, the array of public capital investment project funds appear not duly reported as public equity fund in the liability side and fund assets of the US sovereign balance sheets as it were. These are seeming significant public accounting issues currently prevailing in the US federal treasury that deserve immediate rectification.

(3) The paper also recommend that the International financial institutions such as the World Bank and IMF, the International Federation of Accountants (IFAC) and the national accountancy bodies (globally) are challenged to the need to conduct further assessment of the legal instruments that authorized public fund , fund accounting and develop uniform accounting standard for the consolidated fund and indeed the public equity fund / capital employed to be adopted in the presentation of government financial statements. The introduction, adoption and implementation of international standard on accounting and financial reporting for public funds will contribute in reduction of illusionary accounting and improvement public financial governance.

5.5 Contribution of this Research to Knowledge and the Limitations

The deliverables of this empirical study will contribute immensely to harmonization and standardization of citizens' equity fund accounting as part of core government fund globally.

5.6 Suggestions for Future Research on Public Capital Equity Fund

Intensive and extensive studies should be conducted by other researchers in the future, in order to streamline, standardize and harmonize stewardship accounting and rendition of consolidated fund, other government statutory funds and by extension, ascertainment of reliable net financial position of government entities. The suggested research studies will go a long way in eliminating un-sound fund management practices and poor financial governance in different sovereign jurisdictions.

REFERENCES

Abdullahi, A.A. (2007). Public sector accounting: Theory and practice; Zaria, SA'AD-DEEN Press, 280 -320

Adewoye, S.O. (2004). Basic statistics for engineering, economics and management. Lagos, Olukayode Ojo commercial Press.

Allan, I. J. (1990): Un-reserved fund balances and local government finance; The government finance officers association; Research Bulletin (Research and Analysis on Current Issues), September 1990.

Ani, A.A. (2017). 2017 FGN Budget: Tool for economic recovery and growth. An Address presented at the ICAN Economic Discourse Series on 2nd August, 2017 at Muson Center, Onikan – Lagos. (Ani argues that public finance planners / treasury managers need guidance on accounting and rendition of revenue surplus / budget deficit (overdrawn) balance as part of consolidated fund in government financial position)

Anyafor, A.M.O (1994). Government and public sector accounting: Legal and constitutional framework. Enugu – Nigeria: Gopro Press, Vol. 1.

Audit Act 1956, Government of Nigeria; Federal Government Press, Lagos.

Australian Accounting Standards (AAS 31) Financial Reporting by Government 2000.

Bruscia, I., Rossi, F. M., & Aversano, N. (2015). Drivers for the financial condition of local governments: A comparative study between Italy and Spain. *Journal of Self-Government*, 13 (2), 161–184.

Chan, J. L. (1992). "The Government environment: Characteristics and influences on governmental accounting and financial reporting", In: Apostolou, G. and Crumbley, D.L. Handbook on government accounting and finance. (2nd Ed), New York: John Wiley & Sons, Inc.

Chan, James L. (1998). Bases of accounting for budgeting and financial reporting, retrieved On-line, March 30, 2013; www.government accounting and financial reporting/ publication/ com

Chan, J. L. (2012). "Government accounting and financial reporting", On-line publication, retrieved March, 30, 2013. www.government accounting / jameslchan/ publication/com

Christianens, J., Vanhee, C., Manes-Rossi, F., Aversano, N., & van Canwenberge, P. (2015). "The effect of IPSAS on reforming governmental financial reporting: An international comparison. International Review of Administrative Sciences; 81 (1), 158 – 177. DO1: 10 . 1177/002085231456580.

Commonwealth Treasury of Australia's Annual financial statements; 1999 -2015

Constitution Act (1990) of the Government of Australia.

Constitution of the Federal Republic of Nigeria (1999): Federal Government Press, Lagos

Constitution of the Republic of South Africa 1996.

Constitution of the Federal Government of United States America, 1896.

Ejenavi, O. R.(ed, 2007); Annual report of the Auditor-General for the Federation on the accounts of the government of the Federation of Nigeria for the year ended 31st December 2007. Federal Government of Nigeria's Press

Federal Financial Management Improvement Act (FFMIA), 1996.

Federal Government of Nigeria L.F.R.N (2004): Finance (Control and Management) Act, 2004 (as amended), Lagos. Federal Government Press.

Federal Government of Nigeria (1989). Federal treasury accounting manual, Lagos: Federal Government Press

Federal Government of Nigeria (1992-2015). Annual Financial Statements, Abuja. Federal Government Press

Federal Government of Nigeria (2003-2015). Annual budget appropriation acts. Abuja. Federal Government Press

Financial Accounting Standards Board (FASB) and American Institute of Certified Public Accountants (AICPA) (1978). Report of a study group paper on the objectives of financial statements.

Financial Management and Accountability Act (FMA) 1997 of the Australian Government.

Her Majesty Treasury and Finance Act 2005 of the Government of the UnitedKingdom.

Her Majesty Treasury's Annual Consolidated Fund Act 2004 – 2015 / 2016 of the Government of the United Kingdom.

Glautier, R., & Underdown, J. (1976). Accounting theory and practice, London; Arnold – Heinemann

Governmental Accounting Standards Board (GASB – USA) (1987). Proposal on objectives of external reporting by government.

Government Resources and Accounts (GRA) 2000, Her Majesty Treasury of the Government of the United Kingdom.

International Federation of Accountants (IFAC) (2004). International Public Sector Accounting Standards Board; IPSAS N0 1 & 2, 2004

Oshisanmi, K. N. (1992). Government accounting and financial control, Lagos – Nigeria: Megavons (W.A.) Publishers Ltd.

Porwal, L. A. (2006). Accounting theory; Tata McGraw–Hill Publishing Co (Pte) Limited, New Delhi.

Public Financial Management Accountability Act (PFMA), 1999 of the Republic of South Africa.

The World Bank (2007). Local public financial management; Washington D.C, (ed.) Anwar Shah; Chapter 2 – Local government fund management, contributed by M. Corinne Larson, public sector governance and accountability series, 33-68

United States of America (2003 -2015). Financial statements of the U.S. Government

Table 2. CRF FUND ACCOUNTING BALANCES
5 COUNTRIES' FINANCIAL REPORTS
(2004 - 2015 / 2016)

Year	**Country:**	**Nigeria**	**(UK)Britain**	**U S A**	**Australia**	**S-Africa**
	Period	**Jan –Dec**	**Apr – Mar**	**Oct-Sept**		
	Numaire	**Naira (B)**	**P Stlg 000**	**US $ (B)**	**Aus Dola**	**SA - Rand**
2004	1	101,604.83	81,408	7,709.8	39,564	563,441
2005	2	352,174.30	1,248,340	8,458.7	62,468	121,491
2006	3	735,301.15	1,245,634	8,916.4	44,042	569,099
2007	4	516,790.11	1,244,340	9,205.8	33,906	926,787
2008	5	-20,221.06	1,254,044	10,203.5	53,006	1,190,359
2009	6	-370,067.75	42,733,025	11,455.9	70,411	180,826
2010	7	-1,432,097.60	120,850,186	13,472.8	80,384	486,267
2011	8	-3,255,574.52	123,918,186	14,785.4	78,662	391,537
2012	9	-6,773,659.31	136,349,249	16,101.0	54,952	450,103
2013	10	-11,643,722.69	141,330,202	16,909.3	37,564	1,029,249
2014	11	-11,527,509.52	96,734,155	17,700.7	33,425	709,907
2015	12	-12,583,737.78	129,895,325	18,221.9	34,737	284,254
Total		**-45,900,719.84**	**796,884,276**	**151,141.2**	**623,119**	**6,903,320**
Mean		**-3,525,059.99**	**66,407,023**	**12,761.77**	**51,927**	**575,277**

Sources: FGN / OAGF ; HM Treasury -UK; USA gov. Treasury; Commonwealth Treasury of Australia; Republic of South Africa's Treasury (various years).

Table 3. CDF FUND ACCOUNTING BALANCES
ANNUAL FINANCIAL REPORTS OF 5 COUNTRIES

(2004 - 2015 / 2016)

Year	Country:	Nigeria	(UK)Britain	U S A	Australia	S-Africa
	Period	Jan –Dec	Apr – Mar	Oct-Sept		
	Numaire	Naira (Billion)	P Sterling	US Dollar	Aus Dola	SA -Rand
2004	1	65,141.07	0	0	0	0
2005	2	171,449.49	0	0	0	0
2006	3	44,759	0	0	0	0
2007	4	36,997.86	0	0	0	0
2008	5	-2,822,225.43	0	0	0	0
2009	6	-2,774,640.04	0	0	0	0
2010	7	-3,140,451.12	0	0	0	0
2011	8	-2,706,870.81	0	0	0	0
2012	9	70,392.78	0	0	0	0
2013	10	5,028,750.59	0	0	0	0
2014	11	2,717,327.78	0	0	0	0
2015	12	1,910,544.35				
Total		**-1,398,424.31**	0	0	0	0
Mean		**-116,568.69**	0	0	0	0

Sources: FGN / OAGF ; HM Treasury -UK; USA gov. Treasury; Commonwealth Treasury of Australia; Republic of South Africa's Treasury (various years).

Notes: Capital Development Fund accounting and carrying balances were only captured and reported in the annual financial statements of Nigeria's National treasury in the reviewed financial years. Nigeria was the only sovereign entity that did not report fixed capital assets and did not