The International Journal on Governmental Financial Management

Vol. XX, No. 1, 2020



International Consortium on Governmental Financial Management

International Consortium on Governmental Financial Management

"Working globally with governments, organizations, and individuals, the International Consortium on Governmental Financial Management is dedicated to improving financial management so that governments may better serve their citizens"

The material published herein may be reproduced without the consent of the Consortium, which in fact encourages their reproduction, translations, and distribution. The views expressed in this publication do not necessarily reflect those of the editor or the positions taken by the Consortium.

The editor invites submission of articles, research papers, letters and reviews of books, and other relevant documents. Please submit material to the editor: Hassan Ouda –

icgfm.ijeditor@icgfm.org.

Requests for information on the Consortium should be addressed to:

International Consortium on Governmental Financial Management

PO Box 1077

St Michaels, MD 21663

Telephone: (410) 745-8570

Fax: (410) 745-8569

Email: icgfm@icgfm.org

www.icgfm.org

Copyright 2020 by the International Consortium on Governmental Financial Management

i

International Journal on Governmental Financial Management

Vol. XX, No 1, 2020

ISSN 2220-4709

Key title: International journal on governmental financial management

Abbreviated key title: Int. j. gov. financ. manag.

Published by
The International Consortium on
Governmental Financial Management
St Michaels, Maryland
United States of America

International Consortium on Governmental Financial Management

General Information

"Working globally with governments, organizations, and individuals, the International Consortium on Governmental Financial Management is dedicated to improving financial management so that governments may better serve their citizens."

Our mission includes three key elements. First, it highlights that, within the international community, the International Consortium on Governmental Financial Management (ICGFM or the "Consortium") is unique - it serves as an "umbrella" bringing together diverse governmental entities, organizations (including universities, firms, and other professional associations), and individuals. At the same time, it welcomes a broad array of financial management practitioners (accountants, auditors, comptrollers, information technology specialists, treasurers, and others) working in all levels of government (local/municipal, and national). Additionally, the mission statement emphasizes the organization's commitment to improving government infrastructure so that needs of the people are better met. Our programs provide activities and products to advance governmental financial management principles and standards and promote their implementation and application.

Internationally, the Consortium: (1) sponsors meetings, conferences, and training that bring together financial managers from around the world to share information about and experiences in governmental financial management; and (2) promotes best practices and professional standards in governmental financial management and disseminates information about best practices and professional standards to our members and the public. ICGFM provides three options for membership:

- 1. Sustaining Members: organizations promoting professional development, training, research or technical assistance in financial management; willing to assume responsibility for and to actively participate in the affairs of the Consortium. Each Sustaining Member has a seat on the ICGFM Board of Directors. (Dues: \$1,500)
- 2. Organization Members: government entities with financial management responsibilities, educational institutions, firms, regional and governmental organizations, and other professional associations. Six organization members serve on the ICGFM Board of Directors. (Dues: $$250/$150^{1}*$)
- **3. Individual Members**: persons interested in or dedicated to activities directly related to financial management and who wish to be members in their own right. Six members of the ICGFM Board of Directors will be selected from among all individual members. (Dues: \$100/\$50*)
- 4. Student Members: persons enrolled at a college or university who are interested in financial management are eligible and will enjoy the benefits of Individual Members. (Dues: \$25)

¹ *A special discount is offered to Low and middle lower income economies, as classified by the World Bank (Gross National Income GNI). This discount is available to the following countries: Afghanistan, Albania, Algeria, Angola, Armenia Azerbaijan, Bangladesh, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, China, Colombia, Comoros, Congo (Dem. Rep.), Congo (Rep.), Cote d'Ivoire, Eritrea, Djibouti, Dominican Republic, Ecuador, Egypt (Arab Rep), El Salvador, Ethiopia, Gambia, Georgia, Ghana, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, India, Indonesia, Iran (Islamic Rep), Iraq, Jordan, Kenya, Kiribati, Korea (Dem. Rep), Kyrgyz Republic, Lao PDR, Lesotho, Liberia, Macedonia (FYR), Madagascar, Malawi, Maldives, Mali, Marshall Islands, Mauritania, Micronesia (Fed Sts), Moldova, Mongolia, Morocco, Mozambique, Myanmar, Namibia, Nepal, Nicaragua, Nepal, Niger, Nigeria, Pakistan, Papua New Guinea, Paraguay, Peru, Philippines, Rwanda, Sao Tome and Principe, Samoa, Senegal, Sierra Leone, Solomon Islands, Somalia, Sri Lanka, Sudan, Swaziland, Syrian Arab Republic, Tajikistan, Tanzania, Thailand, Timor-Leste, Togo, Tonga, Tunisia, Turkmenistan, Uganda, Ukraine, Uzbekistan, Vanuatu, Vietnam, Yemen, West Bank and Gaza, Zambia, Zimbabwe

Foreword

While the Public Financial Management reforms have been launched three decades ago by the developed countries, they are still a central element of governance reforms in many developing, transition, and post-conflict countries. They include reforms to implement medium-term budgeting, performance-based budgeting, accrual accounting, integrated financial management information systems, results-based performance measurement and performance audit. The broad objectives of public financial management reforms are to achieve overall fiscal discipline, allocation of resources to priority needs, and efficient and effective allocation of public services. Therefore, the current issue focuses on the public financial management reforms in some developing and transition countries.

First article of this issue deals with extending the institutional theory: public sector accounting and financial reporting perspectives, Sri Lanka. In this article, Nagalingam Nagendrakumar has attempted to explain why the accrual accounting practices introduced to Public Entities (PEs) in Sri Lanka has been a failure. This paper concludes that the initial pressure (pull) for the reforms existed whereas the induced pressure (push) did not. Also, the second negated the first causing an overall pressure to the public entities insignificant and hence the public sector Accounting and Financial Reporting (PSAFR) Reforms reform failed in Sri Lanka.

Second article focuses on addressing challenges of Supreme Audit Institutions: the case of the Office of the Auditor-General in Ghana. In this article, Samuel Pimpong examines the challenges facing the office of the Auditor-General (A-G) in executing its oversight responsibility of promoting financial accountability in Ghana. The study revealed the A-G lacks total independence to perform his functions as provided in the 1992 Constitution of Ghana and other Public Financial Management (PFM) Acts. This is due to the executive wielding so much power that impacts negatively on the functions and performance of the office of the Auditor-General.

Third article deals with the public financial management in Ghana: a move beyond reforms to consolidation and sustainability. In this article, Mohammed Sani Abdulai has examined the evolution of Ghana's PFM reforms and reviewed the legal and institutional reforms undertaken to strengthen the country's key PFM institutions and finally, considered what the country should be doing to achieve its intended goal of PFM consolidation and sustainability.

Fourth article focuses on people's conception about revenue-expenditures and governmental accounting procedure in Bangladesh: a strategic way forward and philosophical analysis. In this article, Md. Abdul Kuddus has attempted to develop a theoretical framework of accrual based governmental accounting systems in Bangladesh. This paper also helps conceptualizing accounting information used by the politicians (users of information) and public financial managers/civil servants (producer of information).

Finally, fifth article deals with the efficiency of personnel costs utilisation among MDAs in Nigeria: the data envelopment analysis approach. In this article, Rafiu Oyesola Salawu and Philip Olawale Odewole have investigated the efficiency of public sector entities in the utilisation of personnel cost releases to Ministries, Departments and Agencies in the education sector in Nigeria. The study concluded that only periodic assessment, regular evaluation and integration of the size of the payroll of the DMUs with the personnel cost releases by the central authorities can guarantee full efficiency scores in the utilization of personnel cost releases to the Public Sector entities in Nigeria.

We hope the articles in this issue will stimulate discussion on contemporary problems of public organizations. If you would like to participate in such discussions, please contribute to the next

issue of this Journal and/or attend future ICGFM events. We would also be pleased to receive reviews and suggestions for future issues. Send them to icgfm@icgfm.org.

We look forward to hearing from you!

Prof. Dr. Hassan Ouda

Editor

John Thissen Vice President of Communications Lucie Phillips

President

June 2020 Issue

xtending the Institutional Theory: Public Sector Accounting and Financial Reporting Perspecti ri Lanka	
agalingam Nagendrakumar	
ddressing Challenges of Supreme Audit Institutions: The Case of the Office of the Auditor- eneral in Ghanaamuel Pimpong	.20
ublic Financial Management in Ghana: A Move beyond Reforms to Consolidation and ustainability	.29
eople's Conception about Revenue-Expenditures and Governmental Accounting Procedure in angladesh: A Strategic Way Forward and Philosophical Analysis	.50
he Efficiency of Personnel Costs Utilisation among MDAs in Nigeria: The Data Envelopment nalysis Approachafiu Oyesola Salawu and Philip Olawale Odewole	.65
bout IJGFM	.83

Extending the Institutional Theory: Public Sector Accounting and Financial Reporting Perspectives, Sri Lanka

Prof. Dr. Nagalingam Nagendrakumar

Abstract

The purpose of this study is to explain why the accrual accounting practices introduced to Public Entities (PEs) in Sri Lanka has been a failure. To elevate the phenomenon, the study employed institutional theory as a theoretical scope. And also, it espoused the interpretive stance, case study strategy, and theoretical thematic analysis method. The study is significant since it extends the institutional mechanism which is a part of the institutional theory into initial pressure (i.e., pull) and induced pressure (i.e., push). It concludes that the initial pressure (pull) for the reforms existed whereas the induced pressure (push) did not. Also, the second negated the first causing an overall pressure to the public entities insignificant and hence the public sector Accounting and Financial Reporting (PSAFR) Reforms reform failed in Sri Lanka. This study reassures in the PSAFR reform point of view the institutionalization of the institutions has not yet been well explained.

Keywords: Pull; Push; PSAFR Reform; Institutionalization

1.0 Introduction

The Government owns and controls the public sector under two sub-sectors – PEs and Government Business Enterprises (GBEs) (Chua, 1996; Guthrie, 1998). The Sri Lankan public sector also fits into the above sub-sectors. PEs provide services to the general public and comprise the central governmental organisations (Central Government (CG), line ministries and departments) provincial governmental organisations (Provincial Councils (PC), provincial ministries and departments) and local governmental organisations (Municipal Councils (MCs), Urban Councils (UCs) and Pradeshiya Sabhas)) (Kumara & Handapangoda, 2008) and Statutory Boards. GBEs engage in business activities and comprise the Government-owned companies: Ceylon Electricity Board, Sri Lanka Transport Board, Sri Lanka Petroleum Corporation, and the Sri Lanka Port Authority. The accounting history informs that the subsectors above did not follow the same accounting practices: PEs followed cash accounting practices whereas GBEs followed accrual accounting practices in line with the private sector principles. The PSAFR reform advocates the institutionalization of accrual accounting practices to the PEs except GBEs.

Recently, developed countries: New Zealand, Australia, the United Kingdom, and others, and developing countries: Sri Lanka, Vietnam, Nigeria, Taiwan, and the like, have introduced PSAFR reforms in public sector. Although Sri Lanka adopted the New Public Financial Management (NPFM) reforms during the 1990s, the PSAFR reforms only started to gather momentum with the involvement of the Institute of Chartered Accountants of Sri Lanka (ICASL) from 2009.

The ICASL adopted the International Public Sector Accounting Standards (IPSASs) and introduced accrual accounting practices to the Sri Lankan public sector known as the Sri Lanka Public Sector Accounting Standards (SLPSASs) in 2009 (ICASL, 2009). ICASL recognised the Association of Public Finance Accountants of Sri Lanka (APFASL) as its public sector partner.

Also, ICASL set up the Public Sector Accounting Standards Committee (PSASC) with the objective of developing accrual-backed SLPSASs for Sri Lanka's public sector. The PSASC introduced four standards in 2009, which became 10 by 2012 and 20 in 2018. These 20 standards apply to the CG, PC, Local Governments (LG), non-profit making Statutory Authorities, and Universities (ICASL, 2009).

2.0 Statement of Problem

Study finds two research problems: one being in the context of PSAFR reform and the next in the context of institutional theory.

In the context of PSAFR

The literature argues that the introduction and adoption of accrual accounting practices to the public sector has not achieved the expected results. The continued debate highlights the application of a suitable implementation process is the most significant factors in PSAFR reforms. The implementation process refers to the way in which the accrual accounting practices are put into practice to the PEs. Furthermore, notwithstanding their significance, few is acknowledge about the institutionalization process of accrual-backed standards (Christiaens et al., 2014). Public sector accounting scholars are of the view that the way in which the accrual accounting practices are adopted in PEs causes it to perform differently depending on countryspecific factors (Nagendrakumar, 2018), and, therefore, the outcome of PSAFR reforms is not identical in all cases (Buhr, 2012). They also emphasise that accrual accounting reforms do not have a consistent pattern, thus resulting in a misguided transfer of accrual accounting practices to the public sector (Soverchia, 2012; Grossi & Soverchia, 2011; Guthrie, 1998). Furthermore, the question concerning whether all countries have adopted a uniform implementation process also remains unanswered, and the studies in this field are quite silent about the implementation process of PSAFR reforms. Overall, the institutionalization of the accrual accounting practices does not portray established institutionalization process.

In the context of institutional theory

In that line, three criticisms are important to the present study as far as the institutional theory is concerned. First, it is argued that the institutional approach has not been well established (Tolbert & Zucker, 1996). Second there is very little consensus on the definition of key concepts, measures or methods within institutionalization tradition and as a result, it has developed no central set of standard variables for institutionalising a change (Tolbert & Zucker, 1996). Finally, there has been surprisingly a little attention given to conceptualising the institutionalisation process (Tolbert & Zucker, 1996).

All three debates in the context of institutional theory have become an open truth in PSAFR reform which leads to revisit the institutional theory in PSAFR reform context.

3.0 Purpose of the study

In line with the argument above, the overall objective of this study is to explore a suitable institutionalization process for PSAFR reform.

4.0 Literature Review

4.1 Reforms overview

The New Public management (NPM) led neo-liberal thinking and the financial crisis, during the latter part of the 19th century, resulted in various Governments to offer rescue packages. For example, the United States of America 700 billion US dollars, Canada 40 billion Canadian dollars, France 26 billion euros, Briton 94 billion pounds and India 8 billion US dollars). It also led the question of how the rescue measures provided by various supra national organizations are presented in the governmental financial statements. Further, the sovereign debt crisis (e.g., Greece and Dubai) also resulted in questioning whether the financial reporting of Government interventions is sufficient to achieve accountability and transparency. As a result, International Monetary Fund (IMF) and the IPSAS Board (IPSASB) jointly tried to answer the question and came out with the accrual-based IPSASs (Abanyam & Angahar, 2015).

4.1.1 Developed countries' experience

Bellanca and Vandernoot (2014) argue that there are important disparities among the member states of European Union, both for the application of IPSAS and for the type of accounting used. Bellanca and Vandernoot (2013) contend that the implementation of the PSAFR reforms in Belgium varies greatly from one entity to another. In the process of PSAFR reforms, the Brazilian Treasury has been required the adoption of some sophisticated accounting policies that were beyond the capacity of information Technology platform already installed in either CGs and LGs, and as a result led to the postponement of IPSAS implementation (Cardoso, Aquino & Pigatto, 2014). The United Kingdom is the initiator of public service reforms whereas New Zealand began as a late-starter but became the renowned leader, especially in the adoption and development of accrual accounting (Ellwood & Newberry, 2007). As a result, New Zealand's shift to accrual accounting became a model for the rest of the world. The United Kingdom Government moved to accrual accounting practices in 2001–2002 and adopted accrual accounting first at the agency level and was looking to produce aggregate consolidated financial statements for 2006. The United Kingdom planned to prepare consolidated financial statements in a stage by stage format: Stage 1 - consolidation of the non-audited CG accounts using 2001-02 national accounts information, stage 2 - consolidation of the accrual-based CG accounts during 2003-04, and stage 3 - whole-of-government accounts consolidation for 2005-06. Heald and Georgiou (2009) highlighted that the complex issue of aggregating Government accounts, especially about the definition of control in the public sector, as well as the difficult relationship between international and national financial accounting standards. Thus, the PSAFR reforms have been fragmentary and lack uniformity across the public sector. The Australian public sector has undergone intense PSAFR reforms including a comprehensive overhaul of financial reporting policies. The major aspect of this reform is the involvement of the Australian accounting profession in the formulation of financial reporting standards (Ryan, Dunstan, & Stanley, 1999). As a result, the implementation of PSAFR reforms remains a controversial issue, with intense debate about its usefulness for decision-making (Kober, Lee & Ng, 2010).

4.1.2 Developing countries' experience

The Indonesian Government launched public sector financial reforms as part of broader political and economic reforms aimed at improving the transparency and accountability of the Government (Harun, 2007). The continued lack of progress in PSAFR reforms in Indonesia due to a lack of interest in and understanding of the issues among politicians, successive Governments had been reluctant to push hard for accounting reforms. With the liberalisation of

the economy and developing closer links with the Western economies, Vietnam changed its system of accounting to a mixture of principle-based conceptual accounting pattern taken from the West and the rule-based formal accounting elements retained from the old Soviet-style system. However, this process has faced certain difficulties owing to Vietnam's specific national characteristics such as its local economic system and accounting tradition (Phi Anh & Nguyen, 2013). Nepal CG has been using accrual accounting practices since the late 1980s, for which the thrust came from international agencies and the involvement of professional accounting. However, this turned out to be a failure, and the authorities took the necessary steps to replace accrual-based accounting with an improved version (modified) of cash-based accounting (Adhikari et.al, 2015).

4.2 Institutional theory

Institutional Theory views institutions as "multifaceted, durable social structures made up of symbolic elements, social activities, and material resources" (Scott, 2014). The PSAFR reforms also align with the characteristics outlined by Scott. The theory provides useful insights into not only the persistence and the homogeneity of institutions but also institutional change and transformation (Dacin, Goodstein & Scott, 2002). Thus, Institutional Theory is not a coherent system of rules, but it is rather a collection of ideas that together form a, somewhat consistent, perspective of the mechanisms supporting and restricting social behaviour (Bjorck, 2004). Therefore, Institutional Theory attempts to the deeper and more resilient aspects of social structure, and it considers the processes by which structures, including schemas; rules, norms, and routines, become established as authoritative guidelines for social behaviour (Scott, 2014). Further, it enquires into how these elements are created, diffused, adopted, and adapted over space and time; and how they fall into decline and disuse. Thus, although the ostensible subject is stability and order in social life, institutions must inevitably attend not just to consensus and conformity but to conflict and change in social structures (Scott, 2014).

4.2.1 Institutionalisation mechanism

The institutionalisation mechanism is the process by which organisations strive for legitimate its functions (Agasisti, Arnaboldi, & Catalano, 2008). The institutional mechanism, therefore, can cause increased stability among organisations within an organisational field, sometimes having interactive effects, and not necessarily resulting in increased efficiency, suggesting that organisational adaptation may be more compulsive than problem-solving (Selznick, 1996). Scott (2014), Bjorck (2004), and DiMaggio and Powell (1983) view this as coercive (i.e., constraining mechanism), mimetic (i.e., cloning mechanism), and normative (i.e., learning mechanism) mechanisms. Therefore, ultimately they become the institutional pressure. Thus, all institutional mechanisms put forth pressures to the organisational field to legitimate or stabilise behaviour of the another institution.

Coercive mechanism results from both formal and informal pressures exerted on organisations by other organisations upon which they are dependent and by cultural expectations in the society within which organisations function (DiMaggio & Powell, 1983). Rules, regulations, laws, sanctions, orders, and circular instructions are the indicators of the coercive mechanism (Scott, 2014). Mimetic mechanism points out that the uncertainty pressurises the imitation. When organisational technologies are poorly understood, goals are ambiguous, and the environment creates uncertainty, then, organisations may model themselves on other organisations (DiMaggio & Powell, 1983). Common beliefs, shared logic of action, and the

isomorphism are the indicators of the mimetic mechanism (Scott, 2014). The normative mechanism is the collective pressure of members of an occupation to define the conditions and methods of their work, to control "the production of producers", and to establish a cognitive base and legitimization for their occupational autonomy (DiMaggio & Powell, 1983). Certification and accreditation are the indicators of the normative mechanism (Scott, 2014).

5.0 Study Design

5.1 Concept indicator model

The present study first built the concept indicator model by employing the researcger drived codes from the Institutional Theory.

5.1.1 Institutionalization process

Exploring the research problem of why the PSAFR reforms failed in Sri Lanka is possible in the light of the Institutional Theory. Besides, it is argued that the institutional approach concerning PSAFR reforms has not been well established (Tolbert and Zucker, 1996). Further, there is very little consensus on the definition of key concepts, measures or methods within PSAFR reforms tradition and as a result, it has developed no central set of standard variables for institutionalising the accounting change (Tolbert and Zucker, 1996). Moreover, there has been surprisingly a little attention given to conceptualising the institutionalisation process about PSAFR reforms (Tolbert and Zucker, 1996). Accordingly, it is worth also to revisit Institutional Theory through the PSAFR reforms by customising - actors and their interplay; negotiation; institutional mechanism; incorporation; acceptance; sustenance; and the logic of appropriateness.

5.1.1.1 Actors: PSAFR reform

The social structures are both imposed on and upheld by the actors' behaviour (Bjorck, 2004). Prior empirical evidence indicates that the institutional environment plays an important role in influencing organisations to adopt new accounting and reporting practices (Othman and Arshad, 2011). Meantime, reforms in particular within the public sector, have been undertaken in many countries and have proved to be challenging and difficult to manage (Buhr, 2012). The challenges involved in managing reforms, as experienced by Western as well as Eastern economies have many actors in common which are evident from the 1980s. This phenomenon motivated Hopwood (1984) and raised three fundamental questions: where have these pressures for change come from; what form do they take; and what are their implications. In attempting to find out the answers to this questions, scholars have identified several universal factors associated with the PSAFR reforms. They are viz. accounting tradition and reformation culture (Grossi and Soverchia, 2011; Oulasvirta, 2010); political culture (Brusca et al., 2013; Grossi and Soverchia, 2011; Jones and Pendlebury, 2004; Steccolini, 2004; Wynne, 2003); nature and type of activities of the PEs (Soverchia, 2012; Buhr, 2012; Grossi and Soverchia, 2011; Newberry and Pallot, 2005; Christiaens, 2004; Blondal, 2002; Antony, 2000; Guthrie, 1998); role played by senior management towards change (Buhr, 2012; Grossi and Newberry, 2009); external pressure (Rayegan, et. al, 2012; Al Husaini and Gowda, 2008; Diamond and Khemani, 2006; Newbury, 2006); need for change in budgeting practices (Blondal, 2004); need for reflection (Soverchia, 2012); cost of conversion (Trewavas et al., 2012; Blondal, 2004; Wynne, 2003); information technology (Blondal, 2004); and self - initiatives of the particular country or PEs (Al Husaini and Gowda, 2008).

However, evidence suggests that even when many of the universal factors are favourable, still PSAFR reforms are likely to fail (Kober et al., 2010; Chapple, 2014; Irvine, 2011). The main reason for that is the impact of country-specific factors (Adhikari et al., 2015; Oulasvirta, 2014; Adhikari and Mellemvik, 2011; Wynne, 2003). Thus, one of the focuses of this study, therefore, is to find out such factors which lead to PSAFR failure. Hence, this research argues that there would likely be some other country-specific factors (Nagendrakumar, 2018), which might have a greater impact on success/failure of the PSAFR reforms. This leads to the first proposition:

Proposition 1: There are country's specific actors, in addition to universally found actors, causing the success of the PSAFR reforms.

5.1.1.2 Actors' interplay

Actors' interplay is the interaction among the factors associated with the PSAFR reforms within the public sector. It may be human and non-human or universal and country-specific (Nagendrakumar, 2018; Scott, 2014). These factors become the determinants of the evolution of the PSAFR reforms in Sri Lanka. Actors' interplay leads to institutional rules (Meyer and Rowan, 1997). It is worth to note at this juncture the argument of Tolbert and Zucker (1996) who informs that the institutionalisation process has not been well established and the determinants of variations of institutionalisation also has not been well established which are also found as the imporatnt gaps in PSAFR reforms. As such, the study argues that differing nature of universal and country - specific factors associated with the PSAFR reforms are likely to drive the differences in reaching the desired level of agreement (i.e., the negotiation) about the PSAFR reforms (Ryan et al., 1999). Therefore, negotiating the implantation of accrual accounting practices depends on the effectiveness of the actors' interaction. The degree of agreement among the actors would decide the level of the institutional pressure: coercive, normative, and mimetic, to the end user (i.e., PEs). Thus, the institutional mechanism concerning the accrual accounting practices depends on the actors' interplay. Thus, the second proposition would be:

Proposition 2: Effective interplay among actors would generate positive negotiation and thereby lead to the effective institutional mechanism for PSAFR reforms.

Further, the effectiveness of the institutional mechanism depends on to what the extent the coercive, normative, and mimetic pressures back the incorporation of the accrual accounting practices to the PEs. Thus, the third proposition would be:

Proposition 3: Higher the effectiveness of the coercive, normative, and mimetic pressures then stronger the incorporation of the PSAFR reforms.

5.1.1.3 Conscious and unconscious institutionalisation of the accounting practices

Some factors are over-represented where some are under –represented in different countries and for that reason, the policy formulation about the PSAFR reforms must consider the effective negotiation (Ryan et al., 1999). Similarly, the present study also maintains that the negotiation (i.e., the result of the actors' interplay), the incorporation (i.e., the satisfactory level of the institutional pressure), the acceptance (i.e., the conscious institutionalization of the accrual accounting practices), and the sustenance (i.e., continuing with the accrual accounting practices and turning them out as the accounting culture) are the focal elements of the institutionalization of the PSAFR reforms to the PEs. Further, the conscious institutionalisation is the process of

legitimate reinforcement of the accounting practices and hence, it is the composite product of the negotiation, incorporation, and acceptance of the accrual accounting practices. As a result, the present study argues that the members of the PEs truly would be prepared to implement the accrual accounting practices if and only if it is consciously institutionalised. This leads to the fourth proposition:

Proposition 4: Positive negotiation and effective incorporation would lead to strong acceptance and then, the conscious institutionalisation of the PSAFR reforms.

When the conscious institutionalisation of the accrual accounting practices continues for a considerable period, it leads the PEs to institutionalise the accrual accounting practices unconsciously. When the accrual accounting practices are unconsciously institutionalised then, it becomes the accounting culture of the PEs. Thus, unconscious institutionalisation has a culturally supported effect on the PSAFR reforms, which is the composite product of conscious institutionalisation and sustenance. As a result, the fifth proposition reads as:

Proposition 5: The sustained PSAFR practices turn out to be the accounting culture of the PEs.

5.1.1.4 Implementation process

This study mainly focuses on institutionalisation aspect of the accrual accounting practices to the PEs and hence, attempts to explain and understand the failure of PSAFR reforms in Sri Lanka. Thus, the study proposes successive rostrums of institutionalisation of accrual accounting practices to the PEs: actors' interplay; institutional mechanism; and institutionalisation of accrual accounting practices to the PEs. Further, the study argues that the observing the logic of appropriateness at each and every element of the institutionalisation process is a must to make the PSAFR reforms a success. Tolbert and Zucker (1996) argues that if a formal structure is to be legitimated as authoritative guidelines for social behaviour then the theme and the process should be appropriate and necessary. As a result, the current study argues that the implementation process would be sequential, and the study further, argues that the logic of appropriateness should be observed at each rostrum and throughout the institutionalisation process, and then only the implementation of accrual accounting practices would become an institutional rule to the PEs. Institutional rules function as myths which organizations incorporate, gaining legitimacy, resources, stability, and enhanced survival prospects (Meyer and Rowan, 1997). Institutional Theory, as far as PSAFR reforms are concerned, assumes that organisations adopt management practices that are considered legitimate by others, regardless of their actual usefulness (Carpenter and Feroz, 2001). However, the present study in contradiction focuses on the actual usefulness of the accrual accounting practices to the PEs. Thus, it goes in line with the institutionalization arguments put forth by Tolbert and Zucker (1996) and Scott (2014) that the logic appropriateness becomes the significant factor in institutionalisation process failing to which might lead to failure of any reforms. This gives rise to the sixth proposition:

Proposition 6: When the implementation process is sequential, and the logic of appropriateness prevails at each rostrum and throughout the institutionalisation process then the reforms are likely to succeed.

The above argument leads to the concept indicator model as shown in the Figure 1. The present study co-create the knowledge which is related to knowledge integration which assumes that

knower and known acquire the knowledge and assign meaning to the knowledge, through participating in social practices (Regeer and Bunders, 2009). In this line, the researcher beholds Braun and Clarke's (2013) concept of 'subjectivity' which refers to the idea that what we see and understand reflect our identities and experiences. Qualitative research, therefore, does not treat the subjectivity to mean bias, instead, it incorporates it into the analysis (Braun and Clarke, 2013) and hence, it focuses on the construction of people's accounts as meanings. As a result, the study assumes that the researcher cannot disregard the social interactions and the subjectivity nature in PSAFR reforms. Thus, in the present study, the researcher co-creates the knowledge with the respondents. Accordingly, this research has not adopted the hypothesis testing method but routed a priori concept - indicator model and the study propositions.

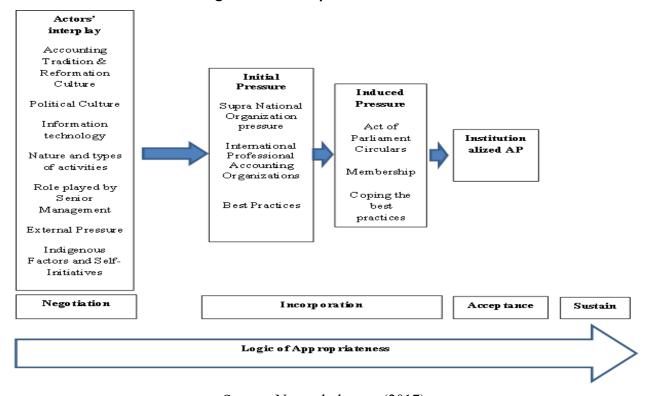


Figure 1: Concept Indictor Model

Source: Nagendrakumar (2017)

5.2 Method

This study was carried out engaging qualitative approach adopting semi-structured interviews as the primary data collection method. The researcher developed the semi-structured interview guide based on the theoretical positioning (Yin, 2014; Braun & Clarke, 2013) of the research questions. Two pilot interviews validated the semi-structured interview guide. The primary data was gathered through 30 semi-structured interviews conducted among the public sector accountants who are attached to the Initiating Agency (InA) (i.e., ICASL and APFASL), Implementing Agency (IA) (i.e., PEs), Divergent Voice (DV) (i.e., Chartered Institute of Management Accountants (CIMA)) and the Controlling Agency (CA) (i.e., the Treasury (T)) and 35 participatory evidence (15 training programmes and 20 meetings) The secondary data

was gathered through the SLPSAS manual, Financial Regulations (FR) and circulars. The data analysis was carried out using the theoretical thematic analysis method (Braun & Clarke, 2013) relying on pattern matching logic (Yin, 2014) through coding the field data using NVivo. The validity of the analysis has been strengthened by triangulating the theoretical positioning, theoretical thematic analysis and pattern matching logic, and further, by data triangulation among InA, IA, T, and DV.

The theoretical positioning (concept indicator model) guided the researcher for the scientific investigation of the PSAFR reforms and also they became the researcher driven - codes for the study. Similarly, this research has - after coding the field data - come out with a set of data-driven codes as well (Braun and Clarke, 2013). Accordingly, the researcher driven-codes and the data - driven codes are finally patterns matched to interpret the results and discuss the fitness of the concept – indicator model. Hence, the present study has followed a systematic research process of a qualitative nature in arriving at the findings.

6.0 Discussion of Results

It is observed that due to the open economy status and wide coverage of networking under globalised operations, Sri Lanka is used in learning and adopting whatever best practices found in the international arena. It is a common fact not only in accounting but also in other disciplines, such as law, medicine, management and the like. In this direction, ICASL, in recent years, has endeavoured to initiate changes in the public sector financial management, especially the introduction of accrual-based accounting practices to the PEs, which has created a new trend in Public Sector Accounting in Sri Lanka (Nagendrakumar et al., 2015a, 2015b).

The recent developments in the accrual accounting practices implemented in the PEs in Sri Lanka are based on mimetic practices. Although the present study attempted to raise the above fact, it was found that both the public sector as well as the private sector in Sri Lanka mimics the international best accounting practices. Mimicking is performed by moderating the best international accounting practices to suit the local accounting environment. Thus, the ICASL has been used to adopt the IFRS/IAS to the Sri Lankan private sector, known as Sri Lanka Accounting Standards (SLAS-LKAS/SLFRS), from its inception as the national accounting body. Also, the study found that the ICASL commenced mimicking the International Public Sector Accounting Standards (IPSAS) into (Sri Lanka Public Sector Accounting Standards (SLPSAS) from 2009 (Nagendrakumar et al., 2015a).

The uncertain environment causes the mimicking and makes one organisation to model the best (Scott, 2014; Tolbert and Zucker, 1996; Di Maggio and Powell, 1983). Failure to benchmark the best practices causes the failing organisation be removed from the system. The study found that although the ICASL faced the uncertain environment in the field of accounting and auditing practices the Government of Sri Lanka did not. Thus, the uncertain environment faced by the ICASL, compelled it to mimic the IFRS and IPSAS, the failure of which might have caused severe damage to its existence. It was further found that the IPSAS Board (IPSASB) also faces uncertain environment and as a result, they too mimic the IFRS. Thus, it was found that the IFRS has become the origin for the accounting practices for ICASL in Sri Lanka (Nagendrakumar et al., 2015a). However, the Sri Lankan Government or the Treasury do not face the uncertain environment, and thus, they are not compelled to mimic the IFRS or IPSAS. Overall, it was found that the PEs are not under compulsion of legitimising the IPSAS or SLPSAS through comprehending and recognising them as appropriate for their environment.

The mimicking is the force by which developments are brought into the Private and Public Sector Accounting field in Sri Lanka (Nagendrakumar et al., 2015a). Furthermore, it was found that Sri Lanka is compelled to benchmark the best international accounting practices since the private and the public sector have not yet come out with their set of accrual accounting practices. Finland has succeeded in having its country specific accrual accounting practices (Oulasvirta, 2014). The main reasons why Sri Lanka is not in a position to initiate its Public Sector Accounting practices are: a) it does not have the skilled public sector accounting experts; b) it cannot afford the cost involved in doing research and development; c) lack of institutional capacity and d) ignorance among the academia on this particular area. Hence, mimicking the best accounting practices with slight changes to suit the Sri Lankan context was inevitable.

It was found that one camp argues that a standard setting process is expected to accommodate the local laws, regulations, and political institutions so that the establishment of unique national standards will provide higher net social benefits than the international standards (Oulasvirta, 2014, 2010; Wynne, 2003). The IFAC, the other camp, highlights the importance of harmonisation of the accrual accounting practices throughout the world (Brusca et al., 2013; Phuong and Nguyen, 2012; Shil and Das, 2009; Sjolander, 2009; Chen and Cheng, 2007). Furthermore, irrespective of the camps, it is argued that the fundamental differences between the public sector and the commercial sector require the reporting framework to be designed specifically for the sector, not a minimalist revision of a commercial framework (Ouda, 2015; Oulasvirta, 2010; Wynne, 2003). However, it is argued that the private sector conceptual framework does not support the IPSASs, and, for that reason, it is argued that there are many flaws in the IPSASB's standard setting process (Oulasvirta, 2010). IPSAS is the base for the SLPSAS. In that direction, it was found that PSAFR reforms in Sri Lanka had been initiated blindly with many flaws since the SLPSAS is based on flawed IPSAS.

Almost all of the conceptual framework setters are the professional bodies in the relevant field (Jones, 1992) and it is substantially true for the private sector accounting profession in Sri Lanka where the ICASL has been empowered to set accounting standards for the private sector and GBEs. However, the study found that the Sri Lankan Public Sector Accounting profession has not been successful in standing as an institutionalised set up for the PSAFR reforms. Nevertheless, this does not mean that they have not taken steps to organise themselves into a logical institutional pattern; instead, during the 1990s, the Public Sector Accountants came under one umbrella known as IPFDA. This Institute implemented the major part of the MOF-ADB financial management training programme during the 1990s. Furthermore, IPFDA endeavoured to incorporate itself as the distinct public sector chartered accounting professional body by passing an Act of Parliament. However, the effort failed because of some political, economic and institutional barriers. Nevertheless, IPFDA did not give up the effort in reforming the PSAFR practices, and, hence, recently it was incorporated as APFASL and came under the purview of the ICASL. Contrarily, the study also found that not all the IPFDA members accepted the move and did not join the APFASL.

The emergence of APFASL, on the one hand, created a great opportunity for Public Sector Accountants to be recognized as the members of the national premier in accounting, while, on the other, the study found that all the APFASL members are expected to follow the SLPSASs. It is argued that the normative mechanism to be effective the members of a profession must be fully certified and accredited (Scott, 2014; Tolbert and Zucker, 1996; Di Maggio and Powell, 1983). Contrarily, it was found that the Public Sector Accountants are not fully certified and

accredited to the ICASL. They are only exempted from the intermediate examination of the ICASL, and, thus, it was found that the Public Sector Accountants are recognised as partly qualified Chartered Accountants. Therefore, it was found that they are not bound to the code of conduct of the ICASL and hence, they are not obliged to follow the pronouncements made by the ICASL.

Even if the Public Sector Accountants are full members of the ICASL, they are also not obliged to follow the PSAFR reforms since the code of conduct of the ICASL does not include adherence to the SLPSAS as a mandate. Also, it was found that even when the Public Sector Accountants are the full members of the APFASL, they are also not obliged to follow the SLPSASs since the APFASL does not have the code of conduct for its members. Thus, members are not morally bound to the APFASL (Scott, 2014; Di Maggio and Powell, 1983). As a result, it was found that the moral governance of the accrual accounting practices - which is the significant aspect in normative pressure - lacks in the PSAFR reforms in Sri Lanka.

The moral governance is achieved through normative practices (Scott, 2014; Tolbert and Zucker, 1996; Di Maggio and Powell, 1983). Nonetheless, the study found that the moral governance has not been achieved by incorporating the normative practices in the Public Sector Accounting profession in Sri Lanka. It is also to be noted that the normative practices are the product of professional standards and accreditation (Scott, 2014; Tolbert and Zucker, 1996; Di Maggio and Powell, 1983). The study found that the ICASL is a member of the IFAC and the APFASL has been accredited by the ICASL and the Chartered Institute of Public Finance Accountants, London. However, the effort to make SLPSASs morally governed has failed since the ICASL and APFASL do not have the enforcing authority to establish the accrual accounting practices in the public sector. Furthermore, even though the Public Sector Accountants have now been made as the public sector wing of the ICASL through APFASL, no one has a membership obligation to follow SLPSASs because the Public Sector Accountants are duty bound only to the Treasury. Overall, the study found that the PSAFR reforms have not achieved the status of moral governance as far as the Public Sector Accountants are concerned (Scott, 2014; Tolbert and Zucker, 1996; Di Maggio and Powell, 1983).

Thus, the ICASL is not legally empowered to deal with the matters about the PSAFR in the public sector. So a full member of the ICASL, even under circumstances that the code of conduct mandates to the adherence to the SLPSAS, cannot abide by since the coercive mechanism plays the superior role as far the PSAFR reforms are concerned. Therefore, it was found that the Public Sector Accountants are obliged to the Government and thus until the Government legalises and Treasury officially instructs, the PSAFR reforms will not get started. As a result, the ICASL was under compulsion to reserve the right to establish the Public Sector Accounting standards and guidelines for the PSAFR to the Government (Institute of Chartered Accountants of Sri Lanka, 2009). Overall, the PSAFR reforms have not been legitimised based on the ground that it was legally sanctioned by the Government (Scott, 2014; Tolbert and Zucker, 1996; Di Maggio and Powell, 1983).

The PSAFR reforms undergo twin pressures. One is the Pull, and the other is the Push. Pull is the initial pressure exerted to the overall system (Sri Lanka). Push is the induced pressure to the subsystem (PEs) located in the overall system. Pull is the initial pressure which alerts a system to learn and recognise the change whereas Push is the induced pressure which leads a system to adopt the change. Pull is exerted by the SNOs (coercive pressure), IFAC (normative pressure),

and the IPSAS (mimetic pressure). Push is exerted by the Government (coercive pressure), EPC (coercive pressure), ICASL/APFASL (normative pressure), and SLPSAS (mimetic pressure). The study found that there was no 'Push' to implement the PSAFR reforms to the PEs since Sri Lanka as a Government did not encounter the Pull. It is good to note that though the globalisation and SNOs pressure exist for transition from cash accounting practices to accrual accounting practices (Yapa and Ukwatte, 2015) the study found that the pressure has not reached to the level that alerted the Government to give priority in its policy agenda. Contrarily, the study found that the ICASL was 'pulled' by the membership obligation to IFAC. The 'pull' led a subsystem (i.e., ICASL) to intervene the operations of the overall system (i.e., Treasury). Also, the sub system is empowered only to regulate the private sector accounting practices whereas the overall system on behalf of the Government is empowered to regulate the PEs. Thus, the 'pull' and the 'push' did not match as far developing the institutional pressure to the PEs.

The circulars of the Treasury apparently supported the reform process and the Secretary of the Treasury also has positively commented on the adoption of the SLPSASs to the Public Enterprises. But it was not so to the PEs. Further, it was found that the circulars and positive commendations by the 'political reform promoters' could not make the PSAFR reforms binding on the PEs as they have to be legally enforced since the coercive mechanism is superior to the normative and mimetic mechanisms as far as the PSAFR reforms to the PEs are concerned. Therefore, from the discussion above, it has been brought to light that mimetic pressure has strongly backed the initiation of PSAFR reforms in Sri Lanka. It has been illustrated in Figure 2 below.

IFRSs SLASs

IPSASs SLPSASs

Figure 2: Status of Mimetic Pressure

Source: Interview data

The normative pressure existed only to the ICASL but not to the Government of Sri Lanka. Furthermore, although a mechanism for implementing the PSAFR reforms (i.e., APFASL) was established to create the normative pressure among the Public Sector Accountants that also proved worthless since it does not have enforcing authority as it lies outside the Governmental financial management structure. As a result, there has been no normative pressure to the Public Sector Accountants as a whole. It has been illustrated in Figure 3.

IFAC SLASs Chartered accountants

ICASL

Obliged

SLPSASs Public sector accountants

Not obliged

Figure 3: Status of Normative Pressure

Source: Interview data

Further, the Government of Sri Lanka has not come out with a policy framework or an Act of Parliament or amendments to the existing Acts to support the PSAFR reforms. Moreover, the Treasury has not come out with any binding circulars or guidelines to support the PSAFR reforms. Furthermore, although the Treasury has taken steps to amend the FR, thus far, they are not introduced to the PEs. Therefore, it was found that the coercive pressure has been very much less as far as the implementation of accrual accounting practices to the PEs is concerned. It has been illustrated in Table 1 below.

Table 1: Status of Coercive Pressure

Aspect	Status	
Government policy	Not designed	
Act of Parliament	Not enacted	
Binding circulars	Not clear	
Amendments to the Acts	Not enacted	
Amendment to FR	Not designed	

Source: Interview data

Based on the discussion thus far, the following institutionalisation framework has emerged from the present study as shown in Figure 4.

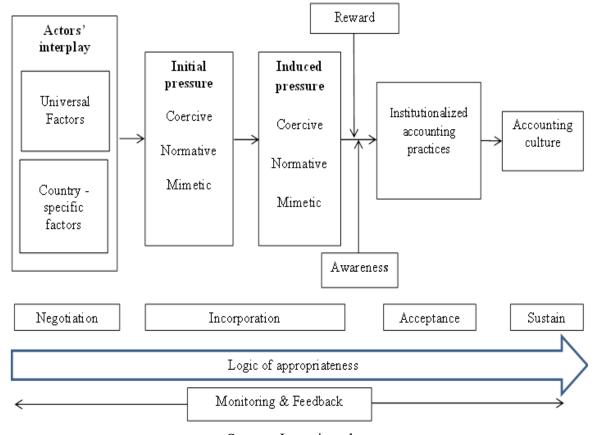


Figure 4: Emerging Institutionalisation Framework

Source: Interview data

7.0 Conclusion

The study has presented the institutionalization framework which could be adopted by all organizations irrespective of the sector in reform management. It is concluded that the PSAFR reforms had been logically mismatched in the Sri Lankan context. The mimetic pressure in relation to accrual accounting practices at the 'pull' stage was effective but not at the 'push' stage. Furthermore, the normative pressure in relation to accrual accounting practices at the 'pull' stage was effective but not at the 'push' stage. The coercive pressure in relation to accrual accounting practices at the 'pull' stage was marginally effective but at the 'push' stage it was not effective. As a result, the negation of pull and push had caused no impact to the PEs. Thus, the PSAFR reforms have not been accepted by the PEs and therefore failed. Furthermore, the study has extended the institutional mechanism articulated by Scott (2014) (Table 1) into initial pressure (i.e., pull) and induced pressure (i.e., pull) as shown in the Table 2. Further, it is argued that the logic of appropriateness did not prevail at each rostrum of the institutionalization process. In addition the study concludes that the absence or lack of awareness, reward, and

monitoring and feedback are also important factors which caused the implementation of PSAFR reform a failure.

Table 2: Extension to Institutional Mechanism

Mechanisms	Pull	Coercive	Normative	Mimetic
	Push			

Source: Interview data

References

- Abanyam, E.I., and Angahar, P.A. (2015). The Effect of the Global Financial Crisis and the Sovereign Debt Crisis on Public Sector Accounting: A Contextual Analysis. International Journal of Academic Research in Accounting, Finance and Management Sciences, 5(1), 72-79.
- Adhikari, P., Kuruppu, C., Wynne, A., and Ambalangodage, D. (2015). Diffusion of the Cash Basis International Public Sector Accounting Standard (IPSAS) in Less Developed Countries (LDCs) The Case of the Nepali Central Government.In J. Kelum, D.N. Nirmala, O. Radiah(Eds.), The Public Sector Accounting, Accountability and Auditing in Emerging Economies (Research in Accounting in Emerging Economies), Emerald Group Publishing Limited, (15), 85 108.
- Adhikari, P. and Mellemvik, F. (2011). The rise and fall of accruals: a case of Nepalese central government. Journal of Accounting in Emerging Economies, 1 (2), 123-143.
- Agasisti, T., Arnaboldi, M., and Catalano, G. (2008). Reforming Financial Accounts in the Public Sector: The Case of Universities. The Irish Accounting Review, 15(1), 1-29.
- Al-husaini, M. and Gowda, K. N. (2008). The Conceptual Framework of Accrual Accounting as Applicable to Government Activities. The Icfai University Journal of Accounting Research, 7(3), 59-68.
- Antony, R. N. (2000). The Fatal Defect in the Federal Accounting System. Public Budgeting and Finance, 20(4), 1-10.
- Bellanca, S. and Vandernoot, J. (2014). International Public Sector Accounting Standards (IPSAS)Implementation in the European Union (EU) Member States. Journal of Modern Accounting and Auditing, 10(3),257-269.
- Bellanca, S., and Vandernoot, J. (2013). Analysis of Belgian Public Accounting and Its Compliance with International Public Sector Accounting Standards (IPSAS) 1, 6 and 22. International Journal of Business and Management, 8(9), 122-133.
- Bjorck, F. (2004). Institutional theory: A New Perspective for Research into IS/IT Security in Organizations. Proceedings of the 37th International Conference on System Sciences, Hawaii, 1-5.

- Blondal, J.R. (2002). Accrual Accounting and Budgeting: Key Issues and Recent Developments. OECD Journal on Budgeting, 3(1), 43-59.
- Braun, V., and Clarke, V. (2013). Successful Qualitative Research: A Practical Guide for Beginners. Sage Publication, New Delhi.
- Brusca, I., Benito, B., and Montesinos, V. (2013). The Harmonization of Government Financial Information Systems: The Role of the IPSASs. International Review of Administrative Sciences, 73(2):293–317.
- Buhr, N. (2012). Accrual Accounting by Anglo-American Governments: Motivations, Developments, and Some Tensions over the last 30 years. Accounting History, 17 (3-4), 287–309.
- Cardoso, R.L., Aquino, A.C.B, and Pigatto, J.A.M. (2014).Brazilian governmental accounting reforms: IPSAS and accrual accounting adoption.
- Carpenter, V. L. and Feroz, E. H. (2001). Institutional Theory and Accounting Rule Choice: An Analysis of Four US State Governments' Decisions to Adopt Generally Accepted Accounting Principles. Accounting, Organizations, and Society, 26(7-8), 565-596.
- Chapple, S.H. (2014). Adoption of International Financial Reporting Standards in Australia: Structure, Agency, and Unintended Consequences. PhD Thesis. University of Wollongong, Australia.
- Chen, J.J. and Cheng, P. (2007). Corporate Governance and the Harmonisation of Chinese Accounting Practices with IFRS Practices. Corporate Governance An International Review, 15(2), 284-293.
- Christiaens, J., Vanhee, C., Rossi, F.M., Aversano, N., and Cauwenberge, P (2014). The effect of IPSAS on reforming governmental financial reporting:an international comparison. International Review of Administrative Sciences, 1–20.
- Christiaens, J. (2004). Capital Assets in Governmental Accounting Reforms: Comparing Flemish Technical Issues with International Standards. European Accounting Review, 13(4), 743–770.
- Chua, M. (1996). A Field Study of Control System "Redesign": The Impact of Institutional Processes on Strategic Choice. Contemporary Accounting Research, 13(2), 569-606.
- Dacin, M., Goodstein, J. and Scott, W.R. (2002). Institutional Theory and Institutional Change: Introduction to the Special Research Forum. Academy of Management Journal, 45(1), 45-57.
- Diamond, J. and Khemani, K. (2006), "Introducing Financial Management Information Systems in Developing Countries," OECD Journal on Budgeting, 5(3), 109-127.
- DiMaggio, P., and Powel, W. (1983). The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. American Sociological Review, 48(April), 147-160.
- Ellwood, S.& Newberry, S. (2007). Public Sector Accrual Accounting: Institutionalizing Neo-Liberal Principles? Accounting, Auditing and Accountability Journal, 20(4), 549-573.

- Grossi, G., and Soverchia, M. (2011). European Commission Adoption of IPSAS to Reform Financial Reporting. ABACUS- A Journal of Accounting, Finance and Business Studies, 47(4), 525-552.
- Grossi, G. and Newberry, S. (2009). Theme: Whole-of-Government Accounting-International Trends. Public Money and Management, 29(4), 209-218.
- Guthrie.J. (1998). Application of Accrual Accounting in the Australian Public Sector: Rhetoric or Reality? Financial Accountability & Management, 14(1), 1-19.
- Harun.H. (2007).Obstacles to Public Sector Accounting Reform in Indonesia. Bulletin of Indonesian Economic Studies, 43(3), 365–375.
- Heald, D. and Georgiou, G. (2009). Whole of Government Accounts Developments in the UK: Conceptual, Technical and Timetable Issues. Public Money and Management, 5(3), 219–27.
- Hopwood, A. (1984), Accounting and the Pursuit of Efficiency in "Issues in Public Sector Accounting," A. Hopwood and C. Tomkins (eds.), Pitman, 167-187.
- Institute of Chartered Accountants of Sri Lanka, (2009). Sri Lanka Public Sector Accounting Standards, Colombo.
- Irvine, H. (2011). From go to woe: How a not-for-profit managed the change to accrual accounting. Accounting, Auditing & Accountability Journal, 24 (7), 824-847.
- Jones, R. and Pendlebury, M. (2004). A Theory of the Published Accounts of Local Authorities. Financial Accountability & Management, 20(3), 305-325.
- Jones, R. (1992). The Development of Conceptual Frame Works of Accounting for The Public Sector. Financial Accountability and Management, 8(4), 249-264.
- Kober, R. Lee, J. and Ng, J. (2010). Mind Your Accruals: Perceived Usefulness of Financial Information in the Australian Public Sector under Different Accounting Systems. Financial Accountability & Management, 26(3), 267-298.
- Kumara, S. and Handapangoda, S. (2008). New Public Management: The Level of Preparedness and Implementation A Study based on the Sri Lankan Context. JOAAG, 3(2), 78-91.
- Mayer, J.W. and Rowan, B. (1977). Institutionalized Organizations: Formal Structure as Myth and Ceremony. American Journal of Sociology, 83(2), 340-363.
- Nagendrakumar, N., (2018). Country Specific Factors: Public Sector Accounting and Financial Reporting Reforms in Sri Lanka. International Journal on Governmental Financial Management, 18(2), 12-27, 2018.
- Nagendrakumar, N., Fonseka, M., and Dissanayake, K. (2015a). Do Institutional Pressures Matter in Development? A case of Introduction of Accrual Accounting Practices to the Public Sector in Sri Lanka. The 10th International Research Conference on Management and Finance, Faculty of Management and Finance, University of Colombo, (November), 30-39.
- Nagendrakumar, N., Fonseka, M., and Dissanayake, K. (2015b). The Development of Public Sector Accounting and Financial Reporting in Sri Lanka. International Journal of Governmental Financial Management, 15(2), 70-88. Newbury, S. (2006). A Bridge too

- Far: A Common Conceptual Framework for Commercial and Public Benefit Entities, Accounting and Business Research, 36(1), 19-32.
- Newberry, S. and Pallot, J. (2005), A Wolf in Sheep's Clothing? Wider Consequences of the Financial Management System of the New Zealand Central Government, Financial Accountability and Management, 21(3), 263-277.
- Ouda, H.A.G. (2015). Making Governmental Accounting More Practice-Relevant: Practitioners Perspective. International Journal of Governmental Financial Management, 15 (1), 9-35.
- Oulasvirta, L. (2014). The Reluctance of a Developed Country to Choose International Public Sector Accounting Standards of the IFAC: A Critical Case Study. Critical Perspectives on Accounting, 25, 272-285.
- Oulasvirta, L. (2010). Public-Sector Accounting and the International Standardization Process of Presenting Financial Statements. Administrative Culture, 11(2), 227-238.
- Phi Anh, D.N., and Nguyen, D.T. (2013). Accounting in a Developing Transitional Economy: The Case of Vietnam. Asian Review of Accounting, 21(1), 74-95.
- Phuong, N.C. and Nguyen, T.D.K. (2012). International Harmonization and National Particularities of Accounting: Recent Accounting Development in Vietnam. Journal of Accounting & Organizational Change, 8(3), 431-451.
- Rayegan, E., Parveizi, M., Nazari, K., and Emami, M. (2012). Government Accounting: As Assessment of Theory, Purposes, and Standards. Interdisciplinary Journal of Contemporary Research in Business. 3(9), 521-531.
- Regeer, B. and Bunders, J. (2009). Knowledge Co-creation: Interaction between Science and Society: A Trans-Disciplinary Approach to Complex Societal Issues. RMNO, Den Haag, Netherlands.
- Ryan, C., Dunstan, K. and Stanley, T. (1999). Constituents Participation in the Australian Public Sector Accounting Standards Setting Process: The Case of ED 55. Financial Accountability and Management, 15(2),173-200.
- Scott, W R.,(2014).Institutions and Organizations-Ideas and Interests, Sage Publications Inc, California.
- Selznick, P. (1996). Institutionalism "Old" and "New". Administrative Science Quarterly,41(2), 270-277.
- Shil, N.C. and Das, B. (2009). Harmonisation Accounting Standards Through Internationalization. Journal of International Business Research, 2(2), 194-201.
- Sjolander, T. (2009). Harmonization Across Borders. A Study of Japanese Views on Accounting from an International Perspective. School of Business, Economics and Law, University of Gothenburg.
- Soverchia, M. (2012). Central Government Accounting and Financial Reporting: A Comparison between France, Italy and European Union. Business and Management Sciences International Quarterly Review, 3(2), 213-228.

- Steccolini, I. (2004). Is the Annual Report an Accountability Medium? An Empirical Investigation into Italian Local Governments, Financial Accountability & Management, 20(3), 327-350.
- Tolbert, P.S. and Zucker, L.G. (1996). The institutionalization of Institutional Theory. Digital Commons @ILR, Cornel University, 173-190.
- Trewavas, K., and Redmayne, N.B., and Laswad, F. (2012). The Impact of IFRS Adoption on Public Sector Financial Statements. Australian Accounting Review, 60, 22(1), 86-102.
- Wynne, A. (2003). Do Private Sector Financial Statements Provide a Suitable Model for Public Sector Accounts? Oeiras (Portugal): ACCA Publication.
- Yin, R., (2014). Case Study Research: Design and methods (5th Ed). Sage Publications Inc. India.

Addressing Challenges of Supreme Audit Institutions: The Case of the Office of the Auditor-General in Ghana

Dr. Samuel Pimpong (PhD), Lecturer, Department of Accounting, University of Professional Studies, Accra, samuel.pimpong@upsamail.edu.gh

Abstract

The International Organisation of Supreme Audit Institution (INTOSAI) places key emphasis on the independence of Supreme Audit Institutions (SAIs). These are spelt out in the 1977 Lima Declaration of Guidelines on Auditing Precepts and the 2007 Mexico Declaration on SAI Independence. SAIs, however, cannot be totally independent because they are part of the state as a whole. Nonetheless, SAIs can accomplish their tasks objectively and effectively, if they are independent of the audited entity and are protected against external interference.

This study sought to examine the challenges facing the office of the Auditor-General (A-G) in executing its oversight responsibility of promoting financial accountability in Ghana. The research methodology applied to the study was qualitative. Secondary sources of information for this study was gathered through literature review, whereas interview guides structured on thematic basis were used to gather primary data. The study revealed the A-G lacks total independence to perform his functions as provided in the 1992 Constitution of Ghana and other Public Financial Management (PFM) Acts. This is due to the executive wielding so much power that impacts negatively on the functions and performance of the office of the Auditor-General.

Keywords: Public Financial Accountability, Public Financial Management, Oversight Role

1.0 Introduction

Supreme Audit Institutions are national agencies responsible for auditing government revenue and spending. Their legal mandates, reporting relationships, and effectiveness vary, reflecting different governance systems and government policies (Stapenhurst, 2001). However, their primary purpose is to oversee the management of public funds and the quality and credibility of governments' reported financial data.

The independence of SAIs must be laid down in the constitution or legislation of the given state, and is of primary importance for guaranteeing the transparency and integrity of public sector administration, thereby strengthening trust in public institutions. Auditors must carry out the audits impartially and perform their tasks in full compliance with the relevant legislative, professional and ethical rules.

In Ghana, key constitutional-legal framework that guides the office of the A-G in ensuring Public Financial Accountability (PFA) are enshrined in the 1992 Republican Constitution of Ghana, under Article 184 that deals with Foreign Exchange; Article 187, the Auditor-General; Article 188, The Audit Service; Article 189, The Audit Service Board; Article 253, District Assemblies Audit and Articles 286, Declaration of Assets and Liabilities by Public Officers. Other Acts have been passed to support the office of the A-G in discharging its PFA duties. They include the Public Office Holders Declaration of Assets and Disqualification Act, 1998 (Act 550), Audit Service Act, 2000 (Act 584), Internal Audit Agency Act, 2003 (Act 658), Financial Administration Act, 2003 (Act 654) and the Financial Administration Regulations, 2004 L.I. 1802. The Financial Administration Act and Financial Administration Regulations

have been repealed and consolidated into the Public Financial Management Act, 2016 (Act 921). Notwithstanding the numerous constitutional-legal powers backing the office of the A-G, it is still bedeviled with challenges that prevents it from discharging its mandate of promoting financial accountability. In light of the above, this study makes enquiries into the challenges facing the office of the A-G and recommends possible solutions to the challenges that have been identified.

2.0 Functions of the Auditor-General

The A-G performs several key functions. The first major function has to do with the audit of Public Accounts as spelt out in the 1992 Constitution. Article 187 Clause 2 provides that the public accounts of Ghana and of all public offices, including the courts, the central and local government administrations, of the universities and public institutions of like nature, of any public corporation or other body or organisation established by an Act of parliament shall be audited and reported on by the Auditor-General. Moreover, section 16 of the Audit Service Act, 2000 (Act 584) states that "the Auditor-General may in addition to the audit of public accounts, carry out in the public interest such special audits or reviews as he considers necessary and shall submit reports on the audits or review undertaken by him to Parliament". Notwithstanding the responsibilities stated above, Section 14 (2) of the Audit Service Act, 2000 (Act 584) further states that the Auditor-General or any person appointed by the Auditor-General to audit the accounts of statutory corporations, shall in addition to the audit report draw attention to the following; the profitability, liquidity, stability and solvency of the corporation and also the performance of the shares of the corporation on the capital markets, where relevant. Additionally, to ascertain whether there have been delays in the payment of government's portion of any declared dividend, if any, into the Consolidated Fund; to identify any significant cases of fraud or losses and their underlying causes; any internal control weakness noted; and the general corporate performance indicating achievement against set targets and objectives; and whether the finances of the state have been conducted with due regard to economy, efficiency and effectiveness having regard to the resources utilized.

Secondly, the Auditor-General is responsible for the approval of form in which public accounts of Ghana shall be kept. Article 187, Clause 4, of the 1992 Constitution demands that; the public accounts of Ghana and of all other persons or authorities shall be kept in such form as the Auditor-General shall approve. This clause has been expanded in the Audit Service Act 2000 (Act 584) Section 11(3) to include computerised financial and accounting systems and electronic transactions, which shall be kept in such form as the Auditor-General shall approve and shall be subject to review by the Auditor-General.

The third significant responsibility of the A-G is the submission of the A-G's Report to Parliament. Article 187, Clause 5, of the 1992 Constitution of Ghana provides that the A-G shall, within six months after the end of the immediately preceding financial year, submit his report to Parliament and shall, in that report, draw attention to any irregularities in the accounts audited and to any other matter which in his opinion ought to be brought to the notice of Parliament. Article 187 further states that, the A-G in his report to Parliament on the public accounts shall draw attention to any case in which he has observed that an officer or employee of Government has wilfully or negligently omitted to collect or receive any public money due to the Government; any public money that was not duly accounted for and paid into the Consolidated Fund or designated public account; an appropriation that was exceeded or applied

for a purpose or in a manner not authorised by law; an expenditure not authorised or properly vouched for or certified; a deficiency through fraud, default or mistake of any person; inefficient or ineffective application of internal control and management measures; the use or custody of property, money, stamps, securities, equipment, stores, trust money, trust property or other assets occurred in a manner detrimental to the state; resources not being used with due regard to economy, efficiency and effectiveness in relation to the results attained. In the public interest, such issues should be brought to the notice of Parliament.

The fourth crucial duty of the A-G relates to Disallowance and Surcharge. Article 187 Clause 7(b) of the 1992 Constitution states that in the performance of his functions, the A-G may disallow any item of expenditure, which is contrary to law and surcharge. According to Section 17 (1) of the Audit Service Act, 2000 (Act 584) the Auditor-General shall specify to the appropriate head of department or institution the amount due from any person upon whom he has made a surcharge or disallowance and the reasons for the surcharge or disallowance.

The fifth duty of the A-G is the Custody of Assets Declaration Forms by Public Office Holders. Article 286(1) states: "A person who holds a public office shall submit to the Auditor-General a written declaration of all property or assets owned by, or liabilities owed by, him whether directly or indirectly, within three months after the coming into force of this Constitution or before taking office, as the case may be; at the end of every four years; and at the end of his term of office".

The sixth responsibility of the A-G is the receipt of Internal Auditors Reports. Section 11, subsection 4 of the Audit Service Act, 2000 (Act 584) requires that an internal auditor of an organisation or body shall submit a copy of each report issued as a result of internal audit work carried out to the A-G.

Seven, the A-G is also responsible for authorising the approval of all financial and accounting systems. All financial and accounting systems in respect of the accounts provided under shall be subject to prior approval of the A-G and shall be subject to prior approval before implementation.

The eighth responsibility of the A-G is the auditing of foreign exchange transactions. This function is spelt out in the Audit Service Act, 2000 (Act 584), Section 12 (1) states, The Bank of Ghana shall, not later than three months; (a) after the end of the first six months of its financial year; and (b) after the end of its financial year, submit to the A-G for audit, a statement of its foreign exchange receipts and payments or transfers in and outside Ghana. Moreover, the Audit Service Act, 2000 (Act 584), Section 12 (2), states that the A-G shall, not later than three months after the submission of the statement, submit his report to Parliament on the statement.

The ninth function entrusted to the A-G is the examination of government accounts. The Audit Service Act, 2000 (Act 584), Section 13, provides that the A-G shall examine in such manner as he thinks necessary the public and other government accounts and shall ascertain whether in his opinion; a) the accounts have been properly kept; b) all public monies have been fully accounted for, and rules and procedures applicable are sufficient to ensure an effective check on the assessment, collection and proper allocation of the revenue; c) monies have been expended for the purposes for which they were appropriated and the expenditures have been made as authorised; d) essential records are maintained and the rules and procedures applied are sufficient to safeguard and control public property; and e) Programmes and activities have been

undertaken with due regard to economy, efficiency and effectiveness in relation to the resources utilised and results achieved.

Finally, the A-G is also responsible for the certification of Controller and Accountant-General's report on public accounts. According to Section 15 of the Audit Service Act, 2000 (Act 584), the A-G shall, upon receipt of annual statement of public accounts required, under sections 40 and 41 of the Financial Administration Decree, 1979, to be made by the Controller and Accountant-General, examine the statement and certify whether in his opinion the statements present fairly financial information on the accounts in accordance with accounting policies of the Government and consistent with statements of the preceding year in accordance with best international practices, and may state such reservation or comment that he considers necessary. The rationale behind the discussion of the A-G's functions is to find out the extent to which the A-G has applied such responsibilities effectively to ensure public financial accountability in Ghana.

3.0 Assessment of the challenges

First, Article 70(1) (b) of the 1992 Constitution of Ghana places emphasis on the appointment of the A-G. Inter alia, it states that the President shall, acting in consultation with the Council of State appoint the Auditor-General. However, the Council of State members that the President consults in the appointment process are nominated by the president, and are part and parcel of the Executive arm of Government. This implies that the A-G who is responsible for the independent audit of state's account is appointed by the President in the same way as Ministers of State are appointed. In an interview with the former A-G, he revealed that such practices influence their ability to perform independently. There seems to be a lacuna in the 1992 Constitution, since best practices require the independence of the auditor from the audited entity.

Second, Article 71(1) (c) of the 1992 Constitution delves into the emoluments of the A-G. It states, the salaries and allowances payable, and the facilities and privileges available to the Auditor-General being expenditure charged on the Consolidated Fund, shall be determined by the President on the recommendation of a Committee of not more than five persons appointed by the President, acting in accordance with the advice of the Council of State. However, in an interview with an officer of the Audit Service, it came to light that the current provision on the emoluments of the A-G was contrary to the provision of the 1954 Constitution of Ghana. The 1954 Constitution vested the A-G's remunerations in the hands of Parliament. Thus the determination of the remunerations of the A-G by the Executive as spelt out in the 1992 Constitution could affect negatively the objectivity of the A-G who may be tempted to work at the pleasure of the President in order to secure his emoluments. Thus, apart from the Executive determining its emolument and by implication compromising its independence, making the Auditor-General a public officer as per Article 187 (1) of the 1992 Constitution subject it to further manipulation by the appointing authority.

Moreover, the office of the A-G has occasionally witnessed some form of interference from the executive in terms of its budget. For instance, the Audit Service Board is required to submit to the President the financial estimates of the Service. The President then lays the estimates before Parliament without revision, but with any recommendations that the President may deem necessary. However, the Ministry of Finance (MOF) interferes by exerting considerable amount of influence on the process, leading to significant unconstitutional revision by the President. In

addition to the above constraint is the problem of release of approved budget funds and payments to the A-G. After Parliamentary approval of the budget appropriation of the A-G, the Ministry of Finance releases funds to the Controller and Accountant-General to be paid to the A-G. The release of funds is often delayed and this hinders efficiency and effectiveness of the A-G. Thus apart from the budget cuts, the erratic payment patterns, as to when the funds are received also affect the A-G's independence

Third, the A-G faces a major challenge of obtaining "financial clearance" before employing a new staff of the Ghana Audit Service (GAS). The Audit Service Act, 2000 (Act 584), Section 4 (1) (a) provides that the Audit Service "Board shall determine the structure and technical expertise required for the efficient performance of the functions of the Ghana Audit Service." Notwithstanding this provision, the Ministry of Finance insists that the GAS obtain "financial clearance" from the ministry before employing the needed staff to the Service. Moreover, the Ministry of Finance further insists that in the absence of "financial clearance", the GAS could only replace a separated staff with another of the same or similar status. For instance, a messenger could only be replaced with a messenger, whiles a director can only replace a director.

Fourth, Article 187(1) of the 1992 Constitution reads, there shall be an Auditor-General whose office shall be a public office. This statement implies that the position of A-G is considered as a post in the Public Services of Ghana, one of the divisions of public office as broadly defined under Article 295 of the Constitution. However, the constitutional mandate of the Auditor-General goes beyond the public services of Ghana to cover all 'public offices' such as the Ghana Armed Forces and the Bank of Ghana. In line with modern practices, the Office of the A-G should stand alone as part of the public offices of Ghana to safeguard its independence from the Public Services.

Fifth, Article 187 (2) of the 1992 Republican Constitution of Ghana states that the public accounts of Ghana and of all public offices, including the courts, the central and local government administrations, of the Universities and public institutions of like nature, of any public corporation or other body or organisation established by an Act of Parliament shall be audited and reported on by the Auditor-General. Based on this enormous mandate, there are enough evidence to suggest that the Ghana Audit Service (GAS) is understaffed. The need to attain sufficient numbers of competent staff and qualified human resources, working under a conducive environment, characterizes the quest for effective control systems to enhance Public Financial Accountability. In an interview with an official of the GAS, he lamented that "out of the two hundred and thirty six districts in Ghana, GAS has only sixty eight district offices countrywide". This implies that GAS has offices in only 28% out of the total number of districts in Ghana. The effect is that most of the accounts of the Ministries, Departments and Agencies (MDAs) are not audited within the required stipulated time. Additionally, the under -staffed officials are unable to prepare financial reports on schedule, as well as to effectively identify the misappropriation of resources and breach of financial regulations.

Sixth, Article 187 (5) of the Constitution states that the A-G shall, within six months after the end of the immediately preceding financial year, submit his report to Parliament and shall, in the report, draw attention to any irregularities in the accounts audited and to any other matter which in his opinion ought to be brought to the notice of Parliament. Generally, the accounts of all public offices are required by law to be presented to the A-G three months after the end of the

financial year. This gives the A-G only three months to conduct the audit of all the accounts, clear issues with their clients and present the report to Parliament. In an interview with an official of the Audit Service, he expressed concern that the rush to meet such deadlines tends to compromise quality control and assurance reviews of the audit reports.

Seventh, Article 187(15) of the 1992 Constitution of Ghana states that the accounts of the Office of the Auditor-General shall be audited and reported upon by an auditor appointed by Parliament. However, a member of the Public Accounts Committee (PAC) of Parliament in an interview revealed that their role is limited to financial auditing. Advancing on this, he was of the view that there is an urgent need for Parliament to extend their mandate to other forms of audit and reviews on performance, structure and operations of the Audit Service.

Eighth, Article 187 (7) clearly stipulates that: "in the performance of his functions under this Constitution or any other law the A-G may disallow any item of expenditure which is contrary to law and surcharge: (i) The amount of any expenditure disallowed upon the person responsible for incurring or authorising the expenditure; or (ii) Any sum which has not been duly brought into account, upon the person by whom the sum ought to have been brought into account; or (iii) The amount of any loss or deficiency, upon any person by whose negligence or misconduct the loss or deficiency has been incurred." Unfortunately, this mandate given to the A-G has seldom been applied since the advent of the Fourth Republic in 1993. For the first time in the history of the country, the current Auditor-General, Mr. Daniel Yaw Domelevo with determination and hard work successfully applied the surcharge clause. Perhaps, the non-application of this clause in the past tends to account for the impunity with which public funds were embezzled by public officials.

Finally, Article 286 (1) of the Constitution declares that a person who holds a public office shall submit to the A-G a written declaration of all property or assets owned by, or liabilities owed by him, whether directly or indirectly; within three months after the coming into force of this Constitution or before taking office, as the case may be; the end of every four years; and at the end of his term of office. The present provision in the constitution with regards to Assets Declaration as stated in Articles 286 to 287 have been hard to carry out arising out of ambiguities on these provisions. Furthermore, Article 286 (1) requires a public officer to submit a written declaration of all property or assets owned by, or liabilities owed by, him whether directly or indirectly to the A-G within a specified period. Article 286 (4) of the 1992 Constitution of Ghana, however, states that after the initial declaration, any property or assets acquired by an officer which is not reasonably attributable to income, gift, loan or inheritance shall be deemed to have been acquired in contravention of the Constitution.

There is thus an implicit obligation on the A-G to use Article 297(c) of the Constitution to compare the subsequent declaration against the initial declaration presented to him by a public official and to refer inexplicable inconsistencies to the Commission on Human Rights and Administrative Justice (CHRAJ) for further actions. This interpretation has been challenged by some Members of Parliament (MPs). Therefore, clear requirements are needed to give understanding on the roles that are expected of the A-G and all public officials with regards to the declaration of assets as enshrined in the Constitution.

4.0 Recommendations

The independence of the A-G should always be linked to the freedom given to an audit body and its auditors to act in line with the audit powers conferred on them without interference. The 1992 Republican Constitution of Ghana clearly spells out the independence of the A-G with regards to their appointment, removal and determination of emoluments. The contentious issue with regards to appointment is that, though the A-G enjoys a secured tenure of office, the President may appoint a person in acting position for any period of time. A long stay in acting position as A-G could compromise one's independence, as the confirmation to a substantive position is dependent on a perception of being loyal to and at the discretion of the President. This study recommends that no A-G should serve in an acting position for more than six months. For instance, from 2006-2009, the then Auditor-General Mr. Richard Quartei Quartey acted as the A-G for three years. Such long periods in acting position is inimical to the independence of the office of the A-G.

Secondly, the A-G enjoys a secured tenure of office. The 1992 Constitution states that the Auditor-General shall not be removed except for stated misbehaviour such as incompetence, infirmity of the body or mind (Article 146, Act 584 s. 10(8)). However, there have been attempts to investigate the A-G that could subsequently lead to his dismissal. The A-G, Daniel Yao Domelevo has in a letter to the Economic and Organised Crime Office (EOCO), said that he will no longer cooperate in the investigations into alleged procurement breaches at his office The study recommends that the tenure of office of the A-G should not be politicized, leading to wrongful dismissal of the Auditor-General. Moreover, the study proposes the involvement of Parliament in the appointment of the A-G. In this direction, the President should act in consultation with members of the Council of State and also on Parliament's recommendations appoint the A-G. The appointment of the A-G should thus be on merit, and not on patronage basis. The position of the AG should only be for serving public officials. Such a personality should have continuously served as a public official for a minimum period of twenty-five years, whiles holding a top managerial position for at least five years.

Thirdly, the study recommends the non-interference by the Ministry of Finance (MOF) in the organization's budget in order to ensure that the Audit Service achieves its core objective of promoting good governance, transparency and accountability.

Fourthly, under article 71(1) of the 1992 Constitution, the salaries and allowances payable, and the facilities, and privileges available to the A-G, shall be determined by the President on the recommendation of a committee of not more than five persons appointed by the President, acting in accordance with the advice of the Council of State. Under the Audit Service Decree (NRCD 49) of 1972, the Auditor-General and Supreme Court Judge were placed on the same salary structure. However, since the inception of the 1992 Constitution, the emoluments of the A-G have been downgraded to that of an Appeal Court Judge. The independence of the A-G could have been strengthened if the 1992 Constitution had picked from the 1954 Constitution and left the determination of the A-G's emolument in the hands of Parliament. Even though the 1954 Constitution is a colonial relic, the adoption of the relevant provision regarding which authority determines its emolument could have cured the inherent mischief in the emolument being determined by the President. The study thus recommends the reinstatement of the Audit Service Decree since the emolument and funding for the GAS has been woefully inadequate to a large extent. Thus, the study proposes the attachment of the emoluments of the A-G to that of

Supreme Court judges, as being practiced in Canada and South Africa. The current practices whereby the salary and allowances of the A-G have been downgraded to those of an Appeal Court Judge should be reviewed.

Lastly, in connection with Articles 286 and 287 on Assets Declaration, the study recommends this function should be given to another independent accountability institution such as the CHRAJ, because the A-G's office, is already overburdened with a chunk of work load.

5.0 Conclusion

Supreme Audit Institutions (SAIs), can accomplish their tasks objectively and effectively only if they are independent of the audited entity and are protected against outside influence (INTOSAI, 1998). This study provided a critical analysis of the oversight role of the office of the Auditor-General in ensuring sound public financial accountability in Ghana. The results of the study revealed that to a large extent the office of the A-G has played a crucial role in promoting financial accountability to the state. However, there are many challenges threatening the work of the office of the Auditor General. Some challenges facing the office of the A-G includes the mode of appointment, emolument, staff strength, retention of staff, workload, political interference and the need for legislative reviews to promote the work of the A-G. The action suggested includes the need for the allocation of more resources for the office of the Auditor-General and non-interference in the work of the A-G by the executive arm of government. This study concludes that, the office of the Auditor-General lacks total independence to perform his functions as provided in the 1992 Constitution of Ghana and other Public Financial Management Acts. This is due to the executive wielding so much power that impacts negatively on the functions and performance of the office of the Auditor-General.

References

- Auditor-General of Ghana (2008). Independence of the Auditor-General The Ghanaian Model. 20th Commonwealth Auditors-General held from 7 9 July in Bermuda
- Government of Ghana (1992). Constitution of the Republic of Ghana. Accra: Assembly Press of Ghana Publishing Corporation.
- Government of Ghana (1998). Public Office Holders Declaration of Assets and Disqualification Act, 1998 (Act 550). Accra: Assembly Press of Ghana Publishing Corporation.
- Government of Ghana (2000), Audit Service Act, 2000 (Act 584). Accra: Assembly Press of Ghana Publishing Corporation
- Government of Ghana (2003). Financial Administration Act, 2003 (Act 654). Accra: Assembly Press of Ghana Publishing Corporation.
- Government of Ghana (2003). Internal Audit Agency Act, 2003 (Act 658). Accra: Assembly Press of Ghana Publishing Corporation.
- Government of Ghana (2004). Financial Administration Regulation (L.I. 1802). Accra: Assembly Press of Ghana Publishing Corporation.
- Government of Ghana (2016). Public Financial Management Act (Act 921). Accra: Assembly Press of Ghana Publishing Corporation.

INTOSAI (1998). INTOSAI Code of Ethics and Auditing Standards. Vienna, Austria:

Stapenhurst, R. & Titsworth, J. (2001) Features and Functions of Supreme Audit Institutions. PREM Notes; No. 59. World Bank, Washington, DC. © World Bank. https://openknowledge.worldbank.org/handle/10986/11363 License: CC BY 3.0 IGO

Public Financial Management in Ghana: A Move beyond Reforms to Consolidation and Sustainability

Mohammed Sani Abdulai, PhD, Project Director, Public Financial Management Reforms Project, Ministry of Finance/Controller and Accountant General's Department, Ghana, Accra, saniphd@gmail.com

Abstract

Ghana's Public Financial Management reforms had been going on for some two decades now (1997/98 to 2017/18). Given this long period of reforms, Ghana in 2019 is putting together both a PFM strategy and a Government Integrated Financial Management Information System (GIFMIS)'s strategy for the next 5-years (2020-2024). The primary aim of these dual strategies is assisting the country in moving beyond reforms to consolidation and sustainability. In this paper, I first examined the evolution of Ghana's PFM reforms. I, secondly, reviewed the legal and institutional reforms undertaken to strengthen the country's key PFM institutions. Thirdly, I summarized the strengths and weaknesses identified by the 2018 PEFA assessment of Ghana's PFM system relating to the its macro-fiscal framework, budget preparation and approval, budget execution, accounting and fiscal reporting as well as external scrutiny and audit. I, finally, considered what the country should be doing to achieve its intended goal of PFM consolidation and sustainability. Using a qualitative method of review and analysis of existing documents, I have, through this paper, brought to the fore the lessons that could be learnt by other developing countries from Ghana's PFM reforms experiences. These lessons included the need to (a) undergird any PFM reform with a comprehensive PFM reform strategy; (b) undertake a legal and institutional reforms of the key PFM institutions (c) assess the strengths and weaknesses of those reforms using PFM performance evaluation tools such as PEFA framework; and (d) move beyond reforms to consolidation and sustainability.

Keywords: Public Financial Management, Public Expenditure and Financial Accountability (PEFA), Public Financial Management Act, Reforms, Consolidation, Sustainability

1.0 Introduction

Public Financial Management (PFM), as a discipline, draws from several fields of academia. According to Christine Lagarde, PFM is 'the fine art of budgeting, spending, and managing public monies' and this fine art, she further asserted, is rooted in an 'interdisciplinary combination of economics, political science, public administration, and accounting' (Cangiano and others, 2013, p. vii). PFM, as an amalgam of these disciplines, is primarily concerned with providing the tools or instruments for implementing fiscal policy and not the tools for making those policies. In this regard, PFM as a discipline deals with 'how' a government's fiscal policies should be implemented and not with 'what' fiscal policies a government should pursue. In the generation of tax revenues, for example, the role of PFM is to provide the tools relating to 'how' those taxes are to be collected and not 'what' tax policies a government ought to be pursuing (Allen and others, 2013).

PFM, being a discipline of the 'how', means that 'how' the government of Ghana raises and spends its public funds will differ from the government of another country. For this reason, PFM is not a discipline that aims for 'best practice' because there is no such thing as a one-size-fit-all PFM system. PFM is, instead, a subject that seeks for 'good practice' with which comes the possibility and opportunity for peer-to-peer learning, continues reforms and improvements.

To this end, the PEFA Framework¹ uses a methodology that 'draws on international standards and good practices' but not 'best practices' (PEFA Framework, 2016, p. 1). An open and orderly PFM system provides the tools for achieving the three desirable fiscal and budgetary outcomes of (a) aggregate fiscal discipline – that is, effective control of the total budget and management of fiscal risks; (b) strategic resource allocation – that is, planning and executing the budget in line with government priorities; (c) and efficient service delivery – that is, using budgeted revenues to achieve the best levels of public services within available resources (PEFA Framework, 2016, p. 2).

2.0 The Evolution of Ghana's PFM Reforms Journey: Two Decades On (1997/98-2018)

In seeking to enhance the achievement of aggregate fiscal discipline, strategic resource allocation and efficient service delivery, Ghana embarked on a PFM reforms journey some two decades ago. To this end, the current wave of Ghana's PFM reforms began in 1997-98 with the launching of the Public Financial Management Reform Programme (PUFMARP). The Programme, which was Ghana's first significant attempt at a more comprehensive approach to PFM reforms, was aimed at the development of integrated Budget and Public Expenditure Management System (BPEMS). The BPEMS was meant to integrate for the first time Ghana's budget preparation and implementation with its financial accounting and reporting as well as cash management. In addition to BPEMS, the PUFMARP was also aimed at reforming such, other PFM activities, as revenue management, aid and debt management, auditing, procurement, fiscal decentralization, legal and regulatory framework, as well as the development of integrated personnel and payroll database. The PUFMARP, which ended in 2002-3, was noted to have been a failure because it 'suffered from major delays and setbacks that resulted from the lack of a coherent strategy and ownership among the key stakeholders' (Dener and others, 2011, p. 52).

The need for a coherent strategy in the implementation of its PFM reforms led Ghana into developing its 'short and medium-term PFM Action Plan (ST/MTAP)' following the 2006 PEFA assessment of the country's PFM system (Betley and others, 2012, p. 27). The short-term aspect of the action plan focused on correcting the wrongs of BPEMPS' implementation while the medium-term aspects concentrated on aligning the focal areas and key objectives of ST/MTAP with the indicators or key results of the 2006 PEFA assessment. This alignment resulted in the reformulation of the eGhana Project² to include an additional component called the Ghana Integrated Financial Management Information System (GIFMIS). This GIFMIS component, which was a project in its own right, was implemented from July 1, 2010, to December 31, 2014 (World Bank, 2016).

The GIFMIS Project which was aimed at undertaking PFM activities deemed necessary at 'improving the efficiency and transparency of government financial management functions using ICT based tools' (World Bank, 2016, p. 3). An independent post-completion performance assessment of the eGhana Project revealed that the GIFMIS component was successful in operationalizing Ghana's IFMIS in all the then 33 Ministries, Departments and Agencies

-

¹PEFA, which stands for the Public Expenditure and Financial Accountability, is used in assessing the performance of a country's PFM system

² The main eGhana Project began in November 2006 and was executed by the Ministry of Communication (MoC) whilst the GIFMIS component of the Project was implemented by the Ministry of Finance (MoF).

(MDAs) located in Accra, the capital city, and 250 Spending Units (SUs) located across the country, including 10 Regional Treasuries (World Bank, 2016, p. 15). These MDAs and SUs are now able to process their Consolidated Fund transactions, which at the time represented almost 66% of total public expenditure, through this IT-based system (World Bank, 2016, p. 15). The GIFMIS component had also achieved a seamless linkage of Ghana's budget preparation, accounting and reporting modules. These successes were triangulated using the 2009 and 2012 PEFA assessments results. In spite of these achievements, the implementation of the GIFMIS component could not cover other public funds such as 'the Internally-Generated Funds (IGFs), Statutory Funds, Extra-Budgetary Funds and the Donor Funds' (World Bank, 2016, p. xi). Besides, the implementation of GIFMIS was not underpinned by 'a comprehensive PFM Reforms Strategy' (Dener and others 2011, p. 52).

This lack of a comprehensive PFM Strategy and the inability of the GIFMIS to cover all the public funds as well as the transactions of sub-national government institutions led to rollover of GIFMIS activities into a new, but a separate, project called the Public Financial Management Reforms Project (PFMRP). The new project, which began in May 2015, was preceded by the development and launching of Ghana's PFM Reforms Strategy in April 2015. The PFM Strategy, which set forth Ghana's PFM Reforms agenda for the next 4-years to December 2018, had six thematic areas. The first of this has to do with achieving budget credibility. The second is that of enhancing comprehensiveness and transparency in public financial management. The third is that of improving MDA and sectorial management by developing a PBB system. The fourth is about improving control, predictability, accounting and reporting of budget execution. The fifth bordered on strengthening Treasury/Cash Management by consolidating the development of the TSA. The sixth and final thematic area dealt with enhancing auditing and risk management by strengthening internal and external audit and parliamentary scrutiny.

The PFMRP had a Project Development Objective (PDO) of 'improving the budget management, financial control and reporting of the Government of Ghana' and it seeks to do so by 'building on [the] PFM systems and tools accomplished in the GIFMIS project' (World Bank, 2015, p. 7). The Project is aimed at contributing to Ghana's effort in 'enhancing fiscal discipline, strategic allocation of resources and service delivery efficiency' (World Bank, 2015, p. 7). The Project is being implemented along the four main components of enhancing budget credibility, public financial management systems and control, reinforcing financial oversight and accountability, and PFM reform coordination and change management. Ghana's PFM reform journey could be said to have been going on for some two decades or so now as depicted in Figure 1.

3.0 Data Collection Methodology and the Theoretical Lens/Framework

In putting this paper together, I reviewed available and accessible documents on Ghana's PFM. The document review was guided by the budget cycle as the theoretical lens or the framework within which the data collection and analysis were undertaken. In conducting a professional related research work such as this one, Bowen (2009, p. 27) argued that 'organizational and institutional documents have been a staple in qualitative research for many years'. Document review, as a research method, is particularly advantageous with regards to (a) efficiency – in terms of being less time consuming; (b) availability – in terms of document being publically available; and (c) cost-effectiveness – in the sense that 'the data (contained in documents) have already been gathered' (Bowen, 2009, p. 31). Using document review as the research methodology of this paper, I was of the view that these advantages outweigh the limitations that

are inherent with the use of only documents as a source of data collection and analysis. These limitations include, but not limited, to (a) insufficient details as a result of the data contained in documents having been collected for other purposes; (b) irretrievability as result of the documents, not being made publically available; and (c) biased selectivity as a result of the documents being 'likely aligned with corporate policies and procedures' (Bowen, 2009, p. 32).

PFMRP Developed based on PFM Reforms **GIFMIS** Strategy Achieving budget Credibility Improving the efficiency and TO Enhancing comprehnsivness and transparency of Ghana's PFM transparency in PFM. using ICT based tools (World Bank' Improving MDAs and sectoral mgt., PPAR. 2016). by developing a PBB system. TO Successful in operationalizing Improving control, predictability, Short term medium term PFM accounting and reporting of budget Ghana's IFMIS in 33 MDAs and action plan 250 spending units (SUs) and 10 Consolidating treasury and cash mgt. Regional Treasuries (RTs). Corresponded with the 2006 through TSA. **PUFMARP** MDAs, SUs and RTs capable of PEFA Assessments of the Ghana's Enhancing auditing and risk mgt. by processing their Consolidated Fund PFM systems strengthening internal & external audit transactions, representing 66% of total integrated budget and public and parliamentary scrutiny T0 public expenditure, through the GIFMIS The short term aspect was to expenditure mgt. system (BPEMS) The PDO of PFMRP is that of improving 2002-03 correct the BPEMS' implementation GIFMIS was, however, unable to cover budget mgt., financial control and report. BPEMS was to integrate Ghana's all public funds such as Internal Generated The medium term aspect was to budget preparation with Financial Aims at building on the PFM systems and Funds (IGFs), Statutory Funds (SFs), accounting, reporting and cash align the seven thematic areas of tools accomplished in the GIFMIS project Extra-budgetary Funds (EBFs) management. ST/MTAP to key indicators of PEFA. and Donor Funds (DFs) (PAD, 2015, p.7) the key modules were to enhance revenue • GIFMIS implementation was not underpinned mgt., aid and debt mgt., auditing, by a comprehensive PFM Reforms Strategy procurement, fiscal decentralization. (World Bank's PPAR, 2016). legal and regulatory framework, and development of integrated personnel and payroll database. PUFMARP suffered from major delays and setbacks resulting from lack of a coherent strategy and ownership among key stakeholders (Dener, Watkins & Dorotinsky, 2011, p. 52)

Figure 1: Two Decades of Ghana's PFM Reform Journey: A Diagrammatic Representation

Source: The Author³

On the use of budget cycle as the theoretical framework within which the documents were reviewed, it is my belief that at the fulcrum around which the PFM systems of any country revolves is the budget cycle. The budget cycle encapsulates every aspect of the budget processes and procedures pertaining to the revenues that a government is expected to generate and the expenditures the government intends to spend those revenues on. To enhance this framework, I

³ The author first developed this diagram for a presentation he made at a PEFA Conference in Senegal in January 2019.

further edged onto the five constituent parts of the budget cycle the scores of the respective performance indicators (PIs) from Ghana's PEFA Assessments in 2006, 2009, 2012 and 2018.

BUDGET CLASSIFICATION AND DOCUMENTATION **BUDGET PREPARATION PROCESS** LEGISLATIVE SCRUTINY, APPROVAL CALENDAR, GUIDELINES & SUBMISSION AND ADJUSTMENTS OF BUDGETS REVENUE MANAGEMENT **EXPENDITURE MANAGEMENT** MACRO-FISCAL FORECASTING PAYROLL MANAGEMENT MEDIUM - TERM PERSPECTIVE LEGAL AND PUBLIC INVESTMENT MANAGEMENT INSTITUTIONAL PI-11 N/A N/A N/A FRAMEWORK PUBLIC ASSET MANAGEMENT **FXTFRNAI ALIDIT** DEBT MANAGEMENT CASH MANAGEMENT LEGISLATIVE SCRUTINY OF AUDIT REPORTS PROCUREMENT MANAGEMENT PI-24 N/S B+ C INTERNAL AUDIT **ACCOUNTING** FISCAL REPORTING

Figure 2: The Theoretical Framework: The Budget Cycle and Ghana's PEFA
Assessments

Source: The Author⁴

4.0 Legal and Institutional-Related Reforms of Ghana's PFM Systems

A country's PFM system is about 'the laws, organizations, systems and procedures available to governments wanting to secure and use resources effectively, efficiently and transparently' (Allen and Others, 2013, p. 2). To, therefore, strengthen a country's PFM institutions the place, to begin with, is the reform of the law with which those institutions operate.

In spite of its noted setbacks, one of the successes Ghana managed to achieve under its first wave of PFM reforms (i.e., PUFMARP, 1997/98-2003) was the promulgation of a plethora of primary and secondary PFM-related legislations whose aim were to strengthen the PFM provisions within the country's 1992 Constitution. The PFM related laws passed during this period were the Audit Service Act, 2000 (Act 584); the Bank of Ghana Act, 2002 (Act 612), the Financial Administration Act, 2003 (Act 654), the Internal Audit Agency Act, 2003 (Act 658),

⁴ The author first developed this diagram for a presentation he made at a PEFA Conference in Senegal in January 2019.

the Public Procurement Act, 2003 (Act 663) and the Financial Administration Regulation, 2004 (L.I. 1802).

Following the development of Ghana's PFM Reform Strategy in 2015, it was realized that the legal landscape of the country's PFM system consisted of 'a plethora of legal instruments, which together, do not establish an integrated legal framework' (IMF, 2015, p. 10). Ghana's PFM laws were, therefore, out of sync with the more modern PFM laws of its contemporaries in Africa such as 'the Kenya's 2012 Public Finance Management Act, Liberia's 2009 Public Finance Management Act, Rwanda's 2006 Organic Budget Law, South Africa's 1999 Public Finance Management Act as amended, and more recently, Uganda's 2015 Public Finance Management Act' (IMF, 2015, p. 10).

To, therefore, modernize the Ghanaian PFM legislation, the Parliament under the sponsorship of the Ministry of Finance, passed into law the Public Financial Management Act, 2016 (Act 921) and its related regulation the Public Financial Management Regulations, 2019 (L.I. 2378). The Act, which was signed into law on August 25, 2016, repealed and replaced the Financial Administration Act, 2003 (Act 645) and its Amendment (Act 760) as well as the Loans Act of 1970.

The role of the budget execution units – that is MDAs/MMDAs⁵ – in the overall budget process cannot be overemphasized. To this end, Ghana has since 2014 enhanced the capacity of its line ministries in their budget execution processes by providing them with the four Integrated Financial Management Information Systems called GIFMIS (i.e., Ghana's IFMIS). These four systems comprise the budget preparation module (i.e., GIFMIS Hyperion), the budget execution, accounting and reporting module (i.e., GIFMIS Financials), the human resource management information system (i.e., GIFMIS HRMIS), and the payroll processing system (i.e., GIFMIS Payroll).

The MDAs/MMDAs use the GIFMIS Hyperion in preparation of their line ministries' budgets. As a result of this ICT-based system alongside the respective budget documentation such as the budget chatter, fiscal strategy document (FSD), program-based budget (PBB) manuals and the like, the quality and timeliness of budget preparation process of these line ministries has tremendously improved over the years.

Following the usage of the GIFMIS Hyperion in the formulation of their budgets, the line ministries go into the budget execution mode using the GIFMIS Financials. Having had Parliamentary approvals of their respective allocations and the issuance of their warrants on the GIFMIS Financials, the MDAs/MMDAs are able to process their expenditure on the system. The expenditure processes include, but not limited to: (a) the purchase requisition for expenditure initiation; (b) the preparation of purchase orders when a supplier is selected; (c) the issuance of stores receive advice when goods/services are supplied; (d) the preparation of payment vouchers to aid in the payment of the supplier invoice; (e) the running of cash requirements report to establish total bills due for payment; (f) the running of the cash pooling report to establish total cash available on the bank accounts; (g) effecting payments on the system through Electronic Funds Transfer (EFT) for 3rd parties transactions and the use of system cheques for moneys required for internal payments.

_

⁵ MDAs/MMDAs stands for central government agencies (i.e., Ministries, Departments and Agencies (MDAs)) as well as sub-national agencies (i.e., Metropolitan, Municipal and District Assemblies (MMDAs))

In addition to the GIFMIS Hyperion and the GIFMIS Financials, MDAs/MMDAs are also able to use the GIFMIS HRMIS (i.e., Human Resource Management Information System) in the management of their human resources. The rollout of the GIFMIS HRMIS has cut down the HR business processes and enabled new employees in the MDAs/MMDAs to be paid within one month after recruitment, a payment which would otherwise have been received after 3-5 months following recruitment. The operationalization of the system in the MDAs/MMDAs has also reduced the backlog of inputs of personnel data. Following the capture of their human resources data into the GIFMIS HRMIS, the MDAs/MMDAs can run their payrolls through the GIFMIS Payroll system.

5.0 The Macro-Fiscal Framework-Related Reforms of Ghana's PFM Systems

Revenue generation and absorptions should reflect the fiscal policy objectives of the government. To this end, the budget process, and for that matter, PFM is informed first by the macro-fiscal policy framework of government. The macro-fiscal framework phase of the budget cycle sets out the medium-term fiscal plans of a country. The planning process begins with the Medium-Term Fiscal Framework (MTFF) followed by the Medium-Term Budget Framework (MTBF) and the Medium-Term Expenditure Framework (MTEF). MTFF is 'the basis for cabinet decisions on fiscal aggregates and a formal agreement on major policy initiatives' (Diamond, 2013, p. 21). MTBF allocates expenditure across different sectors and 'reflects cabinet decision-making on aggregate and line ministry spending ceilings over the medium term' (Diamond, 2013, p. 21). MTEF details out the ceilings in MBTF into the expenditure items in the annual budget. Following the two decade of Ghana's PFM reforms in this area, the 2018 PEFA assessment of the country's macro-fiscal framework revealed the following strengths and weaknesses as depicted in Figure 3.

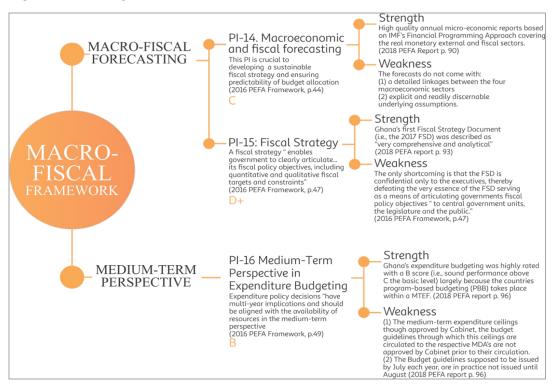


Figure 3: Strengths and Weaknesses in Ghana's Macro-Fiscal Framework

Source: Author's diagrammatic representation of Ghana's 2018 PEFA Assessment Findings

Ghana has been successful in producing macro-fiscal forecasts, the preparation of which had been described as being of 'high quality annual macro-economic reports' (2018 PEFA Report, p. 90). The forecasts are based on the IMF's financial programming approach covering the real, monetary, external and fiscal sectors. The preparation of these forecasts is, however, weakened by the fact that they do not come with 'a consolidated macroeconomic framework for the next few years' hence they are not very detailed in showing the linkages between the four macroeconomic sectors' (2018 PEFA Report, p. 90). Another observed weakness was the lack of explicit and easily discernable assumptions that underlie the country's macroeconomic and fiscal forecast.

Fiscal strategy 'enables the government to articulate ... its fiscal policy objectives, including specific quantitative and qualitative fiscal targets and constraints' (PEFA Framework, 2016, p. 47). Following the passage of Ghana's PFM Act 2016, the Government of Ghana began the implementation of s.15 of that Act by the production of its first fiscal strategy document (FSD) in 2017, this strategy which was prepared by the Ministry of Finance was assessed, in the 2018 PEFA assessment of the country's PFM systems, to be 'very comprehensive and analytical' (p. 93). The only weakness identified was that the FSD tended to be a confidential document accessible to only members of the executive thereby defeating the very essence of it being a means by which the government's fiscal policy objectives are made known 'to central government units, the legislature, and the public' (PEFA Framework, 2016, p. 47).

The expenditure budgeting of the country was highly rated as being of 'a sound performance above the basic' (i.e., a 'B' score) because the countries 'program-based budgeting (PBB), introduced in 2014, takes place within MTEF' (2018 PEFA Report, p. 96). The key weakness, however, is that the budget guidelines through which the government's approved medium-term expenditure ceilings are circulated to MDAs, are in practice not issued until August when they are supposed to be issued by July each year (2018 PEFA Report, p. 96).

6.0 Budget Preparation and Approval Processes-Related Reforms of Ghana's PFM Systems

Having had the macroeconomic and fiscal framework completed, the budget preparation process, logically and sequentially continues with 'the issue of budget instructions, preparation of budget proposals, negotiations on those proposals and finally presentation to and approval by the legislature' (Schiavo-Campo, 2007, p. 252). The strengths and weaknesses observed of the country's budget preparation and approval processes from the 2018 PEFA Assessment are as depicted in Figure 4.

Concerning budget classification, it was noted that the Ghana's budget formulation in the main reflects such internationally accepted categorizations of revenue by type and expenditures by administrative, economic, functional, and program or subprogram classifications (2018 PEFA Report, p. 40). The weaknesses in the country's budget classification bordered on the fact that not all MDAs/MMDAs are currently using the budget preparation module of GIFMIS hence the classification of their budget are done either manually or using semi-automated budget formulation tools such as Microsoft Access-based Activate (2018 PEFA Report, p. 40).

On budget documentation, it was assessed that Ghana accords with six out of the twelve elements of good budget documentation. The first of these six is that the country incorporates within its budget a forecast of the fiscal deficit or surplus. Secondly, the previous year's budget outturns are presented in the same format as the current year's budget proposals. Thirdly, the format of the current fiscal year's budget also accords with the budget proposals. Fourthly, the

budget also provides data on deficit financing as well as a description of its anticipated composition. Fifthly, the budget also incorporates the macroeconomic assumptions underpinning the government fiscal forecast and these assumptions include, but not limited to estimates for GDP growth, inflation, interest rates and the exchange rate. Sixthly, the budget inculpates the documentation of the country's medium-term fiscal forecasts. The weaknesses facing Ghana's budget documentations that are submitted to the legislature for approval are, however, that the documentations do not include details of such elements as the debt stock, financial assets, fiscal risks, and the implications on revenues of the government's new policy initiatives (2018 PEFA Report, p. 43).

Strength Budget formulation, execution and reporting are based on a Chart of Accounts (CoA) that accords with GFS standards and is structured into segments PI-4. Budget Classification A robust classification system allows transactions to be tracked through the Budget that include administrative, economic, functional and program/sub-program classifications. (2018 PEFA Report p. 40) budget formulation, execution and reporting cycle according to administrative Classification & Documentation unit. economic category, function/sub-funct or program. (2016 PEFA Framework, p.20) Weakness Not all MDA's are fully reporting on their budget execution on program/sub-program basis from the GIFMIS. (2018 PEFA Report p. 40) PI-5. Budget Documentation Strength Annual Budget Documentation refers Ghana met 6 out of the 12 required budget to the executive budget proposals for the documentation elements (2018 PEFA Report p. 43) next fiscal year with supporting documents, as submitted to the legislature for scrutiny Weakness and approval (2016 PEFA Framework, p.22) Ghana could not meet 6 out of the 12 required budget documentation elements (2018 PEFA Report p. 43) Strength PI-17. Budget PREPARATION The budget guidelines are detailed comprehensive and clear enough in aiding the MDAs in the preparation of **Preparation Process** & APPROVAL Budget While the MOF is usually responsible for the annual budget their budget (2018 PEFA Report p. 99) Preparation Weakness preparation process, effective preparation process, effective participation by other MDAs and Cabinet in the budget preparation process (2016 PEFA Framework, p.52). This PI is measured on the dimensions MDAs are allowed only 2 weeks to prepare their Process - Calendar, budget submissions instead of 6 weeks required Guidelines & Submission good practice (2018 PEFA Report p. 98) in addition, the submission of the budget to legislature is done at least one month before the start of the fiscal year but good practice requires this be done 2 months of budget calendar, budget guidelines and submission to legislature before the start Legislative Strength Scrutiny, PI-18. Legislative Ghana has been adjudged as having a sound Approval & performance in its legislative scrutiny of central Scrutiny of Budgets Adjustments . governments budget estimates. (2018 PEFA Report p. 101) This PI assess the extent to which the of Budgets Weakness legislature scrutinizes, debates and approves the annual budget, including the extent to which the legislature's procedures for scrutiny The core weakness however is that such legislative idget scrutiny does not cover medium-term estimates are well established and adhered to (2018 PEFA Report p. 101) (2016 PEFA Framework, p.53)

Figure 4: Strengths and Weaknesses in Ghana's Budget Preparation and Approval Processes

Source: Author's diagrammatic representation of Ghana's 2018 PEFA Assessment Findings

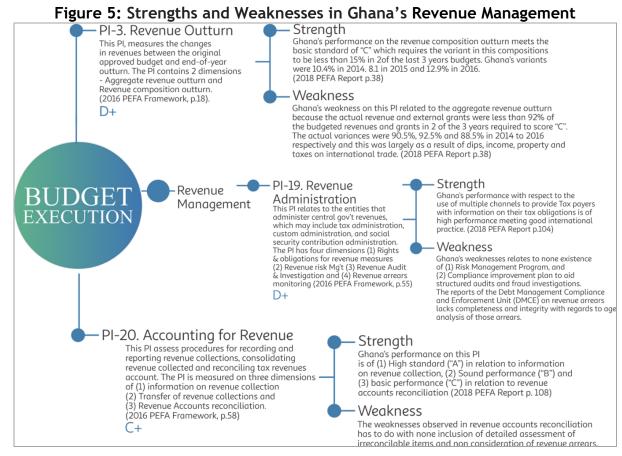
On the budget preparation itself, it was noted that the budget guidelines are detailed and comprehensive in aiding MDAs/MMDAs in the preparations of their respective budgets. The first of the two main weaknesses, however, was that these agencies are allowed a maximum of only two weeks, instead of internationally good accepted practice of 6 weeks, in the preparation of their budgets (2018 PEFA Report, p. 99). The second weakness is that the legislature is only giving one month to review and approve the budget which does not also accord with the internationally accepted legislative review period of two months (2018 PEFA Report, p. 99). On the legislative review itself, the identified weaknesses have to do with the concentration on the

review and approval of only the current year's budget and not those of the outer years (2018 PEFA Report, p. 101).

7.0 Budget Execution and Management-Related Reforms of Ghana's PFM Systems

7.1. Revenue Management

The budget execution phase of the PFM cycle, 'is the phase when resources are used to implement policies incorporated in the budget' (Tommasi, 2007, p. 279). The first element of budget execution, as depicted in Figure 2, is revenue management. The strengths and weaknesses observed in the 2018 PEFA Assessment of the country's revenue management are as depicted in Figure 5.



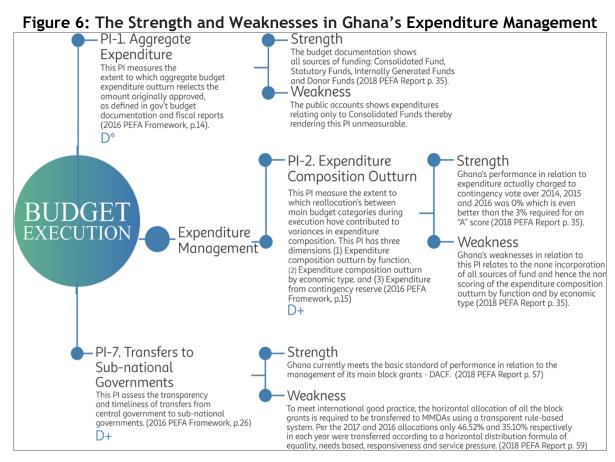
Source: Author's diagrammatic representation of Ghana's 2018 PEFA Assessment Findings

The weaknesses facing Ghana in improving its revenue generation potential were examined in relation to aggregate revenue outturn, revenue administration and revenue accounting. On the revenue outturn, it was observed that the country's revenues had, on aggregate, not performed as expected and that the non-performance was witnessed with respect to income, property and trade taxes (2018 PEFA Report, p. 38). The weaknesses observed with revenue administration related to the non-existence of the risk management program, compliance improvement plans, lack of comprehensive assessment of aged-analysis of tax debtors and so on (2018 PEFA Report, p. 104). Despite these weaknesses, it was noted that the key strength of Ghana's tax administration system rests on how the country deals with the rights and obligations of the

taxpayers where the country had a score of 'A'. The Ghana Revenue Authority (GRA), it was observed, provides the taxpayers with information about their rights and obligations, the processes and procedures by which those taxpayers could obtain redress to their grievances and that the GRA affords the taxpayers these information through a variety of media (2018 PEFA Report, p. 104). On revenue accounting, it was observed that the GRA has the capacity and do indeed provided information on revenue collections by preparing and sharing on monthly basis a consolidated report on all central government revenues. Another observed strength was that almost 80% (i.e., 79.10%) of these tax revenues are transferred to the country's Treasury Single Account (TSA) 48-hours following collection. Despite these strengths, revenue accounting had been bedeviled with irreconcilable items and the inability of the country to properly manage its revenue arrears (2018 PEFA Report, p. 104).

7.2. Expenditure Management

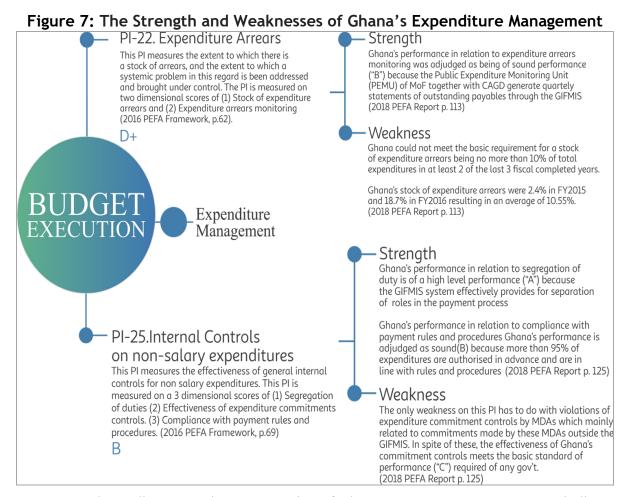
The second element of budget execution, as depicted in Figure 2, is expenditure management. This element considered such issues as aggregate expenditure, expenditure composition outturn, central government transfers to sub-national governments (SNGs), expenditure arrears and internal controls. The 2018 PEFA Assessment revealed, per Figure 6, the strengths and weaknesses of each of these elements.



Source: Author's diagrammatic representation of Ghana's 2018 PEFA Assessment Findings

The aggregate expenditure outturn and expenditure composition of Ghana were not capable of comparison because while the appropriated budget shows all sources of funding – that is consolidated, statutory, internally generated as well as donor funds – the main budget execution reports – that is the public account of Ghana – reports only on the consolidated fund. Although the consolidated fund, at the time of the 2018 PEFA assessment, represented almost 80% of MDAs/MMDAs sources of financing, the non-reporting of other funds such as statutory, internally generated as well as donor funds is a weakness needing a redress. On transfers from the central government to SNGs, the identified weakness was that not all the block grants are allocated using a transparent, rule-based system. The management of expenditure arrears had also faced the challenges of MDAs/MMDAs executing transactions outside the GIFMIS. As a result of this GIFMIS infractions, the internal controls surrounding these outside-the-GIFMIS expenditure transactions could not be vouched for.

On the strengths and weaknesses of the country's expenditure management with regards to expenditure arrears and internal controls on non-salary related expenditures was observed in the 2018 PEFA Assessment to be as shown in Figure 7.



Source: Author's diagrammatic representation of Ghana's 2018 PEFA Assessment Findings

7.3 Payroll Management

The third element in budget execution, as depicted in Figure 2, is payroll management. The payroll management in Ghana is done using two separate, but related, oracle-based systems of the Human Resource Management Information System (HRMIS) and the Integrated Personal and Payroll Database (IPPD 2) system. The critical weakness observed, at the time of the 2018 PEFA assessment (and shown in Figure 8), was that the HRMIS had only achieved a 50% coverage and hence its feed into the IPPD 2 system only covered that percentage, thereby requiring the remaining 50% feed from a non-automated manual based system.

7.4. Public Investment and Assets Management

The fourth and fifth elements in budget execution process depicted in Figure 2 related to public investment management as well as public asset management. During the 2018 PEFA assessment, public investment management could not be measured because it was deemed to be at its infantile stage. This is because the Public Investment Division (PID) of Ministry of Finance had not been sufficiently resourced to effectively undertake economic analysis, selection, costing and monitoring of investment projects. The management of public assets in Ghana had been bedeviled with the lack of a comprehensive asset register for both financial and non-financial assets.

Payroll **Payroll** Ghana achieved sound performance ("B") in both Internal Control and Payroll Audit dimensions. This had been possible because of the monthly payroll validations through the electronic salary payment voucher undertaken by all MDAs as well as the pre-audi procedures undertaken by the CAGD's Internal audit unit. On the PI-23. Payroll Controls Management This PI is concerned with the payroll for public servants only: how it is managed, how changes are handled and how consistency with personnel records management is exchange. Payroll audit the assessment team noted the 100% audit employees on gov't payroll been undertaken by the Ghana Audit Service (2018 PEFA Report p. 116) is achieved. The PI is measured on a 4 dimensional score (1) Integration of Payroll & Weakness Personnel records
(2) management of payroll changes
(3) Internal Control Of Payroll
(4) Payroll Audit
(2016 PEFA Framework, p.64) Ghana would have scored an "A" on the integration of payroll & personnel records had it not been a less than 50% coverage of the Human Resource Management Information System (HRMIS). Another weakness was noted in the Update of personnel records where it takes MDAs 2-Smonths to incorporate. In spite of these weakness Ghana met the basic standard of performance with a sc of "C" in each of this 2 dimensions (2018 PEFA Report p. 116) C +Public PI-11. Public Strength Investment The ongoing effort by Government to establish or Investment Mgt. functionalise the respective project and investment management systems under the leadership of the Public Investment Division (PID) of MoF. Management This PI assess the economic appraisal, selection, costing and monitoring of Public investment projects by gov't and publishing of progress information with (2018 PEFA Report p. 74) Weakness Ghana's below basic performance on this PI is largely as a result of the efforts of PID in improving each of emphasis on the largest and most significant project (2016 PEFA Framework, p.36) the dimensional requirements of economic analysis selection, costing and monitoring of investment projects being at their implementation stages. Public PI-12. Public Asset Asset The Strength of Ghana's Public asset management lies in the full Management deployment of the fixed asset module of the GIFMIS financials. Management This PI assess the management and monitoring of gov't assets (2018 PEFA Report p. 90) and the transparency of asset Weakness disposals The observed weakness relates to: (2016 PEFA Framework, p.39) (1) Non comprehensiveness of the asset register for non financial asset monitoring (2) Non comprehensiveness of asset register for the financial assets of gov't such as shares

Figure 8: Strengths and Weaknesses in Payroll, Public Investments and Assets

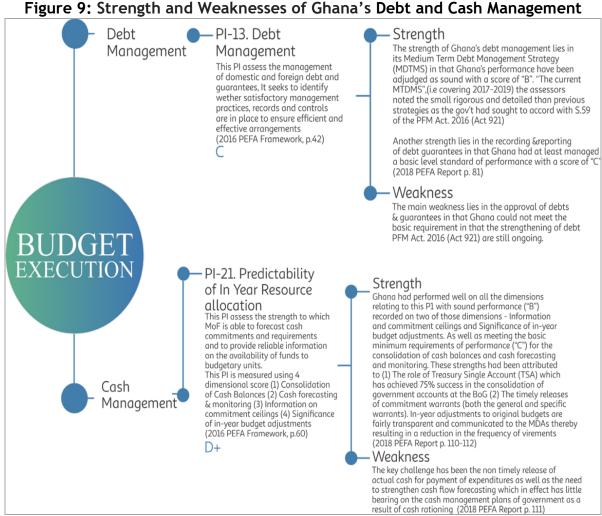
Management

Source: Author's diagrammatic representation of Ghana's 2018 PEFA Assessment Findings

and other financial instruments

7.5 Debt and Cash management

The sixth and seventh elements in budget execution depicted in Figure 2 were debt and cash management respectively. Debt management had, over the years, witnessed tremendous improvement in that Ghana's Medium-Term Debt Management Strategy (MTDMS) had come of age. Cash management had resulted in Ghana implementing a Treasury Single Account (TSA), while the success of TSA's implementation had been widely acknowledged, the persistence of cash-rationing had undermined this success.



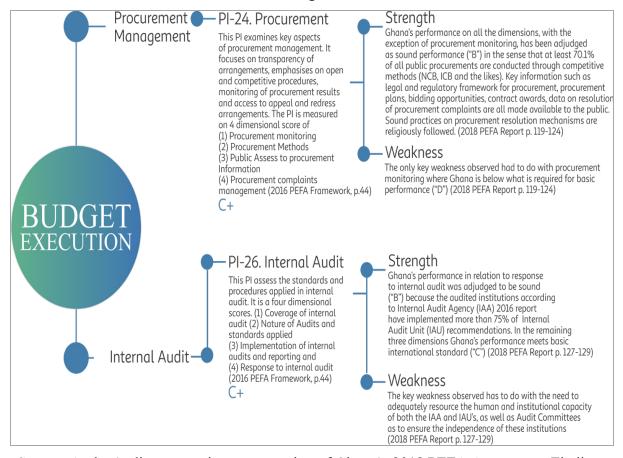
Source: Author's diagrammatic representation of Ghana's 2018 PEFA Assessment Findings

7.6. Procurement Management and Internal Control

The eighth and ninth elements of budget execution depicted in Figure 2 related to procurement management and internal audit. The strength of Ghana's procurement management systems is evident by its sound performance as assessed PEFA score of 'B'. The challenge that had, however, faced the country's procurement processes had to do with monitoring because its performance indicator was assessed to less than the basic standard of performance (a score of

'D'). The country's performance concerning its internal audit met the basic standard (a score of C). The main obstacle to improving the efficiency and effectiveness of internal audit lies in inadequate funding of the internal audit activities within the various MDAs/MMDAs.

Figure 10: Strength and Weaknesses of Ghana's Procurement and Internal Audit Mgt.



Source: Author's diagrammatic representation of Ghana's 2018 PEFA Assessment Findings

8.0 Accounting and Fiscal Reporting-Related Reforms of Ghana's PFM Systems

The rollout of the GIFMIS had tremendously improved accounting and financial reporting in Ghana. The principal obstacle of the system has been with its non-comprehensive coverage of other funds such as the statutory, internally generated and donor funds. The integrity of the financial data had also been challenged by the non-existence of automatic bank reconciliation (ABR) functionality within the GIFMIS. For these reasons the resulting annual financial statements generated through the system do not meet the completeness requirement. Ghana strengths concerning this performance dimension lie in its ability to provide the public with information on its fiscals. The critical obstacle has, however, been with the country's in-year budget reports whose coverage is limited because they provide information on only one source of finance – that is the consolidated funds. Figures 11 and 12 shows the strengths and weaknesses that were observed with regards to accounting and fiscal reporting observed in the 2018 PEFA assessment of the country.

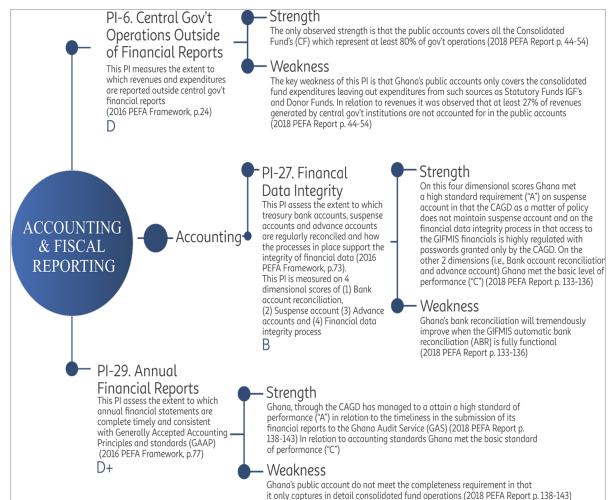


Figure 11: Strength and Weaknesses of Ghana's Accounting and Fiscal Reporting

Source: Author's diagrammatic representation of Ghana's 2018 PEFA Assessment Findings

9.0 External Scrutiny and Audit-Related Reforms of Ghana's PFM Systems

One of the strengths of Ghana's PFM system is the pervasive nature of its external audit scrutiny led by its Supreme Audit Institution (SAI) called the Ghana Audit Service (GAS). The country's 1992 Constitution guarantees the independence of GAS. The only obstacle identified as interfering with this independence has to do with that having the executive, through Ministry of Finance, scrutinizing the budget of GAS. Ghana had been respected for having a robust and unyielding Public Accounts Committee (PAC) of Parliament that holds the executive responsible for their stewardship. Despite this, however, had suffered from having to deal with a backlog of audit report hence their scrutiny tends to deal with audit reports that are almost three years late at any point in time. Figure 13 shows the strengths and weaknesses that were observed with regards to accounting and fiscal reporting observed in the 2018 PEFA assessment of the country.

Strength PI-8. Performance Ghana's performance was above what is required for sound performance ("B+"). This is as a result of its achieving the highest level of performance ("A") in relation to the service delivery performance plans within its programme based budget as well as its publication of Budget Performance Information for Service Delivery This PI examines the service delivery, performance information in the executive's budget proposal or its supporting and documentation in the year end report (2016 PEFA Framework, p.44) report (2018 PEFA Report p. 62-67) Avecuriness of the decorate of the service delivery units, by ensuring that information relating to those resources for such frontline service delivery unit as health and education are collected and recorded and desegregated by sources of funds (2018 PEFA Report p. 62-67) B+ PI-9. Public Access Strength ACCOUNTING Ghana's performance missed the highest level of performance ("A") required of a good international practice in that the gov't makes available to the public (1) Annual executive budget proposal documentation (2) In-acted Budget (3) In-year budget execution report (4) Annual budget execution report (5) Audited Annual financial report (6)Other external budget and the propert of the to Fiscal Information & FISCAL Fiscal This PI assess the comprehensiveness of fiscal REPORTING Reporting information available to public based on specified elements of information to which public accessis considered critical (2016 PEFA Framework, p.31) Annual financial report (6)Other external budget report (7) Summary of the budget proposals (8)Macro-economic forecast (2018 PEFA Report p. 67-69) Weakness The only criteria Ghana could not meet is the non publication of the pre-budget statement (which should have been achieved if the Fiscal Strategy Document (FSD) is made public) (2018 PEFA Report p. 67-69) PI-28. In-year Strength On this PI relates to the timeliness of in-year **Budget Reports** budget report where Ghana's performance was This PI assess the comprehensiveness, accuracy adjudged to be high ("A") largely due to CAGDs production and publication of monthly financial statements and timeliness of information on budget execution (2016 PEFA Framework, p.74) (2018 PEFA Report p. 136-138) Weakness D+ The coverage of those reports are limited in that they cover only expenditures financed out of the consolidate fund (2018 PEFA Report p. 136-138)

Figure 12: Strength and Weaknesses of Ghana's Accounting and Fiscal Reporting

Source: Author's diagrammatic representation of Ghana's 2018 PEFA Assessment Findings

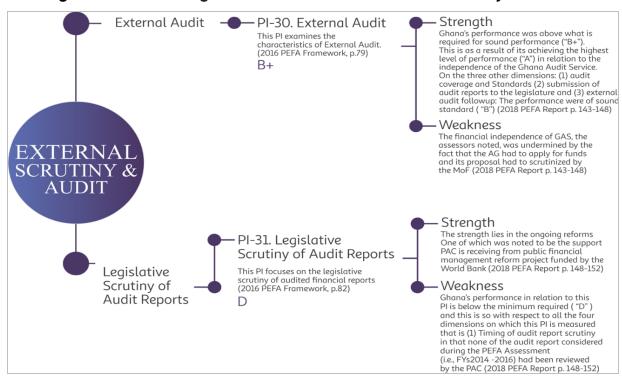


Figure 13: The Strength and Weaknesses of External Scrutiny and Audit

Source: Author's diagrammatic representation of Ghana's 2018 PEFA Assessment Findings

10.0 Ghana's PFM: A Move to Consolidation and Sustainability [2019-2024]

From the PEFA assessment findings, it is evident that Ghana, in the two decades of its PFM reform efforts, seemed to have touched on all aspect of its budget cycle with one kind of reform or the other. To this end, the time has come for Ghana's PFM journey to move beyond reforms to consolidation and sustainability. To do so, Ghana in developing its PFM and the accompanying GIFMIS strategies for the next 5-years (2020-2024), could benefit from according with the 7-stage process proposed by the PEFA Secretariat in transforming a PEFA assessment into a PFM Strategy as shown in Figure 14.

Figure 14: The Proposed Stages of Ghana's PFM Consolidation and Sustainability Dialogue

Stage 1:	Stage 2:	Stage 3:	Stage 4:	Stage 5:	Stage 6:	Stage 7
IDENTIFY PFM STRENGTHS AND WEAKNESSES	DETERMINE UNDERLYING CAUSES OF STRENGTHS AND WEAKNESSES	AGREE ON DESIRED PFM REFORM/ CONSOLIDA TION/SUSTAI NABILITY OUTCOMES	DEVELOP AND PRIORITZE PFM REFORM/CONSOL IDATION/SUSTAIN ABILITY OPTIONS	IDENTIFY POTENTIAL CONSTRAINTS TO REFORM/CONS OLIDATION/SU STAINABILITY	IMPLEMENT REFORMS//CON SOLIDATION/SU STAINABILITY & REFORM /CONSOLIDATI ON/SUSTAINABI LITY ACTION PLANS	MONITORING, EVALUATION AND ADJUSTMENT
Present a list of strengths and weaknesses identified in the PEFA report	Agree if analysis to be undertaken to identify the technical and non-technical causes or contributing factors to the strengths and weaknesses	Agree on the desired PFM outcomes to come from addressing the problems and weaknesses	Develop a set of reform initiatives that address the weaknesses identified and support the achievement of the desired PFM outcomes. Agree the order of priority of the reforms/consolidat ion/sustainability. Review priority based on constraints identified in stage 5.	Identify constraints to successfully implementing reform and possible actions to mitigate those constraints	Implement specific actions, identify responsibilities, timelines, and capacity development needs. This could be as individual initiatives or part of a reform/consolid ation/sustainabili ty strategy or action plan.	Monitor the implementation of reforms and individual actions. Review and modify consolidation/sust ainability. initiatives or plans.

Source: PEFA Handbook Volume IV: Using PEFA to support Public Financial Management improvement (2nd Draft, June 2019)

In putting together Ghana's PFM Strategy, the first stage requires the identification of the strength and weaknesses of the country's PFM. The intent of this stage is to answer the questions: 'what is the problem?' and 'what are the findings of the PEFA assessment?' (PEFA Handbook Volume IV, 2019, p. 14). In answering these questions, Ghana has the opportunity of assessing whether a giving issue identified during the PEFA assessment could be addressed using PFM or non-PFM related interventions. Having identified an issues as requiring a PFM related intervention should lead to the second stage in the development of Ghana's PFM

Consolidation and Sustainability Strategy. The stage requires Ghana to provide an answer to the question: 'what are the causes of strong and poor PFM performance identified by the PEFA assessment?' (PEFA Handbook Volume IV, 2019, p. 15). To this question, while the 2018 PEFA assessment report could be useful, there may be the need for further assessment to be undertaken by the country using other PFM diagnostic tools such as 'TADAT⁶ for monitoring tax administration or ... PIMA⁷ for monitoring public investment' (PEFA Handbook Volume IV, 2019, p. 16). The use of such other tools will provide Ghana with the opportunity of unearthing both the technical and non-technical causes of its PFM weaknesses. Having identified the underlying causes of the weaknesses in its PEFA assessment report, the third stage requires Ghana to decide as to the outcomes it wishes each aspect of its PFM consolidation and sustainability effort to achieve. The decision on the outcomes is required as an input into the fourth stage which requires the country to prioritize and sequence the PFM initiatives that will be necessary in achieving a given PFM outcome. The fifth stage requires the country to identify the constraints that will inhibit the achievement of the desired outcomes. The sixth stage is the stage of implementation and the seventh is about monitoring and evaluation.

In putting together its GIFMIS Strategy, Ghana could benefit from a PFM digitization architecture that is 'a data-driven, single-platform based, deployement optimized, hybrid-cloud architecture' as shown in Figure 15.

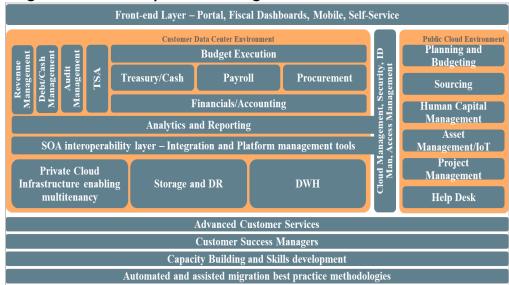


Figure 15: The Proposed PFM Digitization Architecture for Ghana

Source: Author's as inspired by Peter Erdosi

⁶ TADAT - Tax Administration Diagnostic Tool

⁷ PIMA - Public Investment Management Assessment

⁸ The PEFA Secretariat's study *Stocktake of PFM Diagnostic Tools*, identifies a total of 46 diagnostic tools for PFM systems in use as at December 2016 available at https://pefa.org/sites/default/files/asset/study_document/Stocktake%20PFM%20Tools-04-17-2018 clean.pdf

Ghana's PFM and its enabling technological solutions and systems cannot lag behind the digital revolution the global economy is currently experiencing. To this end, Ghana needs a rethink with regards to its current technology platform – the current on-prem Oracle E-Business Suite (EBS) that is running Oracle database and IBM based operating system and server infrastructure. The call for a re-think is premised on the fact that the current mega-trends borders on such new digital technologies as machine learning, artificial intelligence, internet of things (IoTs), conversational user interfaces, chat bots, mobile-enabled devices, social-media, blockchain, embedded real-time analytics and so on. These new technologies are in the main cloud driven and hence the technology behind Ghana's PFM systems cannot ignore the adoption of one-form of cloud computing or the other. The question is not whether Ghana's PFM systems should or should not be cloud oriented, the question is rather on when and in what form the country's PFM could related digitization agenda should take.

In putting together its GIFMIS Strategy for the next 5-years, Ghana needs to decide on which cloud-based PFM model it wishes to adopt, considering all aspects of PFM operations: from security to data residency, from (functional) compliance to control, from scalability and robustness to interoperability and openness. This is especially so because Ghana being a sovereign nation, will need to carefully mitigate risks that are tolerable for private sector players but substantially different in PFM context of a sovereign government. To this end, there are four common cloud deployment models today that are opened to Ghana – these are public, private, hybrid, and community cloud. Leaving out a detailed elaboration on each of these four models and limiting this discussion to the proposed model and its benefits, it is important for Ghana to note that a choice of a cloud-based PFM architecture is dictated by where services are hosted, who has access to data and information, who is managing the cloud, and customization of services. The proposed hybrid cloud architecture for Ghana's PFM systems will consists of a public and private cloud within which the country can easily segment data and transfer data between clouds (i.e., private and public) as and when necessary.

11.0 Conclusion

In charting a way forward for Ghana's PFM systems, I have in this paper traced the various waves of Gahan PFM reforms which began some two decades ago. Having been engaged in PFM reforms for such a long period, Ghana's decision to move beyond reforms to consolidation and sustainability is an endeavor that must be encouraged. In this regard, I have sought in this paper to encourage Ghana's PFM consolidation and sustainability efforts by pointing out the steps the country should take in getting its PFM strategy for the next 5-years prepared. In the paper, I have further encouraged the country to ensure that its GFMIS strategy embraces technologies of the now as well as those the near future.

In addition to these country-specific admonishments, I have in the paper drawn out the lessons that could be learnt by other developing countries from the two-decades of Ghana's PFM reforms. These lessons include the need to ensure ownership of the reforms by each of the key PFM institutions. I have also drawn attention to the need to ensure that strategies should underpin PFM reform processes to avoid muddling-through. Furthermore, I have drawn attention to the need to have a periodic assessment of PFM reforms, consolidation or sustainability efforts using such PFM performance measurement frameworks as those of PEFA.

References

- Allen R., Hemming R., & Potter B.H. (2013). The International Handbook of Public Financial Management
- Betley, M., Bird, A., & Ghartey, A. (2012). Evaluation of Public Financial Management Reform in Ghana, 2001–2010. Final Country Case Study Report, Joint Evaluation, p. 27
- Bowen, G. A. (2009). Document analysis as a qualitative research method. Qualitative research journal, 9(2), 27-40.
- Cangiano M., Curristine T., & Lazare M., (eds.), 2013. Public financial management and its emerging architecture, IMF, p VII.
- Dener, C., Watkins, J., & Dorotinsky, W. L. (2011). Financial Management Information Systems: 25 Years of World Bank Experience on What Works and What Doesn't. The World Bank, p. 52
- Diamond, J. (2013). Good Practice Note on Sequencing PFM Reforms. Available at https://blog-pfm.imf.org/files/sequencing-v8-good_practice_note_on_sequencing_pfm_reforms_jack_diamond_january_2013_1.pdf accessed on May 31, 2019, p. 21.
- IMF's Afritact West 2 (2018), Continue Momentum on Restructuring the Ministry of Finance (Budget Division)
- IMF's Afritact West 2 (2017), Ghana: Review of the Functions of the Ministry of Finance. Technical Assistance Report, June 2017.
- IMF Fiscal Affairs Department, (2015), Ghana Towards an Integrated Public Financial Management Legal Framework, p. 10
- PEFA (2019) PEFA Handbook Volume IV: Using PEFA to support Public Financial Management improvement (2nd Draft, June 2019)
- PEFA (2016). Framework for assessing public financial management. Available at https://pefa.org/sites/default/files/PEFA%20Framework_English.pdf
- World Bank (2015). Public Financial management Reform Project (PAD). Available at http://documents.worldbank.org/curated/en/516451516628028345/pdf/Disclosable-Version-of-the-ISR-Ghana-Public-Financial-Management-Reform-Project-P151447-Sequence-No-06.pdf
- World Bank (2016). Project Performance Assessment Report: Republic of Ghana eGhana Project, Report No. 108359 available at https://ieg.worldbankgroup.org/sites/default/files/Data/reports/ppar_ghana_01032017_0. pdf accessed on May 31, 2019
- Schiavo-Campo, S. (2007) Chapter 2: 'The budgeting and its coverage'. Public Sector Governance and Accountability Series: Budgeting and Budgetary Institutions edited by Anwar Shah. Available at https://siteresources.worldbank.org/PSGLP/.../BudgetingandBudgetaryInstitutions.pdf accessed on May 31, 2019, p. 252

People's Conception about Revenue-Expenditures and Governmental Accounting Procedure in Bangladesh: A Strategic Way Forward and Philosophical Analysis

Md. Abdul Kuddus, MPhil Fellow, Institute of Bangladesh Studies, Rajshahi University and Assistant professor, Department of Business Studies, North Bengal International University, Rajshahi, Email:shyamoluits@gmail.com, Mobile: +8801717854104

Abstract

At Present governmental policy making emphasizes on what departments produce rather than on what they have available to spend. The main aim of this paper is to develop a theoretical framework of accrual based governmental accounting systems in Bangladesh. It also helps conceptualizing accounting information used by the politicians (users of information) and public financial managers/civil servants (producer of information). As the people of the country are the owners of public money, the governments as well as the civil servants have some responsibility to ensure welfare to the citizenry at all levels by effective utilizing of the money. For developing the theory exploratory research has been conducted. To reach the result descriptive statistical techniques have been used to analyze on thirty respondents who are directly/indirectly practitioner/service receivers of governmental accounting information systems operating in Bangladesh. In conducting this research twenty structured 'Yes"/'No" simple dichotomous questionnaires have been used to measure people's philosophy about taxation and accounting in Bangladesh to develop a strategic theory of the subject. This is done because, all of the laws and regulations in the parliament of Bangladesh has been passed through "yes"/"no" oral votes basis. The outcomes of the research will help the government and other stakeholders in setting services providing and revenues generation agenda, policy formulation, financial decision analysis, implementation and performance evaluation of the government functions by department, ministries, local self government and many other components units.

Keywords: Governmental Accounting, Shared Capital Assets, Budget Calendar, Resource Accounting, Civil Service Accounting.

1.0 Introduction

All organizations which are not privately owned or operated can be defined as government organization. Government's financial activity done by the civil servants is called civil service accounting. Governmental sector organization can be classified into the departments of central government, nationalized industries/state owned enterprises, public corporations, local

¹ The term Government sector and public sector sometimes used as interchangeably. Government sector includes central government, state government as well as local government bodies. But public sectors means beyond the limit of government at different level. The public sector includes public companies, public interest entities (PIE), public enterprises and services. The public sector is usually composed of organizations that are owned and operated by the government. This includes federal, provincial, state, or municipal governments, depending on where you live (https://www.toppr.com).

² A state-owned enterprise (SOE) is a legal entity that is created by a government in order to partake in commercial activities on the government's behalf. It can be either wholly or partially owned by a government and is typically earmarked to participate in specific commercial activities (World Bank Group, Corporate governance of SOEs: A toolkit, 2014, p. 25). Currently there are 49 state owned enterprises (non financial) in Bangladesh. See Bangladesh economic review 2019, Chapter 9, p. 1.

authorities, bodies set up for a specific purpose: universities, the mint etc (Frank Wood's, 2008). These are the government enterprise not government. Hence, they don't have any power of taxation and using fund without the prior permission by the government raised from their services and other charges. The aim of the study is to give answer to the questions set by the people of Bangladesh for long time regarding Revenues-expenditures and government accounting procedures currently practicing. Main intellectual basis for governmental financial sector analysis and policy advice over the last five decades is the work of World Bank group and IMF reform strategy on public financial management³. In Bangladesh, govt. usages "Stopgo-Approach" for budgeting and accounting which means a way of controlling the economy by restricting government spending for a period of time and then not restricting it so severely for a time. Taxation is necessary by the government for public services and to manage whole economy. For collecting taxes government of Bangladesh has been announced "Kor Bahadur".4 Designation for higher tax payers from the fiscal budget 2017-2018. For enhancing the realization of unpaid tax the government has taken initiatives titled 'Rajawsha Halkhata' from the same fiscal year budget. The ministry of commerce has been announced another motivational designation 'Commercially Important Person⁶ (CIP)' to drive more taxation from the business giants and affluent persons. For grooming more taxes and attaching more people on taxpayer's net government also observe 30th November as 'Income tax day' and December 10-15 as 'VAT Day' and 'VAT Week' in every year. In Bangladesh government is providing services to the people with profit and without profit. But taxes are collected from the people who have taxable income. People who are not able to pay taxes get also government services. Taxation is less risky for government financing than taking loan from private sector by the government. Here exist 'Supranational taxation" between central government and local self-

_

³ The government of Bangladesh has taken several reforms strategy regarding public financial management and expenditure control for strengthening the public financial management process. These are (a) Public financial management action plan 2018-2023. (b) Public financial management reform strategy 2016-2021, (c) GoB Financial management Reform Program September 2003, (d) Reforms in budgeting and expenditure control (RIBEC) 1992, (e) Report of the committee on reforms of the budget and expenditure control (CORBEC), 1971/1980, Ministry of Finance Bangladesh.

⁴ Prestigious designation to the families where all members are paying taxes for long period of time. Budget speech 2017-2018, p.81.

⁵ Ibid. P.81

⁶ In Bangladesh a CIP is an individual who is allowed to receive a number of benefits and facilities for the period of one year after recognition for their contribution to their respective sector. Such a CIP receives a special id card from the Ministry of Commerce and from the Government of the People's Republic of Bangladesh. Such CIPs are invited to the Citizen's reception for various national ceremonies including entry to the Bangladesh Secretariat and the city corporation. CIP's have priority seating opportunities in most domestic public transport during business trips. To facilitate visas, the Ministry of Foreign Affairs offers a 'Letter of Introduction' to the Embassy concerned. CIP's get access to the Very important person (VIP) lounges at airports and their family members receive priority when booking cabins at government hospitals. Generally, CIP's are either those who export products or those regarding businesses. CIP's primary list is prepared based on the amount of export, income tax and value-added tax (VAT), the type of business, employment, etc. Afterward, the people who qualify are selected for the honor (https://en.wikipedia.org/wiki/Commercially Important Person).

⁷ A supranational organization is an international group or union in which the power and influence of member states transcend national boundaries or interests to share in decision making and vote on issues concerning the collective body. The European Union and the World Trade Organization are both supranational entities. In the EU, each member votes on policy that will affect each member nation. The benefits of this construct are the synergies derived from social and economic policies and a stronger presence on the international stage.

government for balanced economic development. But uniformity of accounting system is absence for reporting revenues and expenditure. Harmonization of accounting and reporting practices in all levels of government needs to adopt international public sector accounting standards.

Government accounting aims at preventing waste in government and establishing a balance between optimal expenditure and services by managing governmental assets and resources in the most efficient way. This balance can be established only by obtaining complete and accurate information from government accounting system. Government accounting used to monitor revenues and expenses, which were available only in the budget and excluded the payables, receivable and assets of the government as there was a limited area of operation for the government previously (Mihriban Coskun Arslan, 2017). In modern concept of government accounting goes far beyond being budget and considers the changes in assets and includes cash flow into the accounting systems. Government accounting is a process which enables recording, making decision, analysis, classification, summarization, notification, and interpretation of government financial knowledge as well as including and reflecting all transactions which includes purchasing, transferring and allocation of government property in general. In private organization, business ownership holds by the people. Ownership government's business like enterprises also holds by the people of the respective country. So it is important duty of the government to ensure transparency and accountability⁸ for the people benevolence. Government accounting, as an instrument of financial management, also aims are creating a basis for productivity analyses by suggesting the costs of government services, It determines whether government activities are rational or not (Financial reform project of Turkey, 2002). When political power had only a few duties in national economy in the past, there was not much need for information for economic administration. Now the whole world is directed by the economy rather than political power. So it is obliged to create an accounting method which can respond to changes arising out of lack of information on account of relationship among the nations. Budget and business accounting both are related with future, so no future decision will be taken effectively without originating proper government accounting systems. Government accounting is the safeguard of government assets, instrument of governmental financial decision analysis and better method of forecasting and generating revenues, recording and reporting expenses and measurement of performances.

2.0 Literature Review

The object of government is the welfare of the people (Roosevelt, 1910). To ensure welfare all economic policies are made for the people not for the nation. A nation may fall into decay through taxation in two ways: Firstly, when the amount of the taxes exceeds the power of the nation and is not proportioned to the general wealth. Secondly, when the amount of taxation, proportioned on the power of the nation, is viciously distributed (Pietro Verri 1728-1797). A wise collector-general shall conduct the work of revenues-collection, increasing the income and decreasing the expenditure (Kautilya). The superintendent shall furnish the accounts as to the forms of works in hand, of works accomplished, of parts of works in hand, of receipts of

_

⁸ Accountability requires government to answer to the citizenry-to justify the raising of public resources and the purposes for which they are used. Governmental accountability is based on the belief that citizenry has a "right to know", a right to receive openly declared facts that may lead to public debate by the citizens and their elected representative. Financial reporting plays a major role in fulfilling government's duty to be publicly accountable in a democratic society. Government Accounting Standards Series, No.171-A. June 1999, p. 76.

expenditure, of net balance, and tasks to be undertaken in each of the several departments, There are four main purpose of taxation viz.; Revenue (collect a sum of money for government), redistribution (transfer from rich to poor, reprising (levied on harmful things e.g.; tobacco, carbon), representation (accountability to general public by the government). As per the American revolutionary slogan "no taxation without representation" implied this: rulers' tax citizens, and citizens demand accountability from their rulers as the other part of this bargain. Bongabondhu sheikh Mujibur Rahman (1966) proclaimed in a movement that, the power of taxation and revenue collection should be vested in the federating units and the federal centre would have no such power. The federation would be entitled to a share in the state taxes to meet its expenditures. Taxation is much of a political issue as an economic issue. Political leaders have used tax policy to promote their agendas by initiating tax reforms; decreasing or increasing tax rates, changing the definition of taxable income, creating new taxes on specific products etc. An efficient national revenue collection system is the hub of every public administration system and the cornerstone of sound fiscal management (Zhou Gideon, 2013).

Government accounting is essential to all economic thinking conducted from a factual basis, because it gives a factual record in an orderly manner (Bray, 1955, p.2). There are three types of accounting system e.g. national accounting, government budgeting and government accounting and they have different sets of policy makers, nationally and internationally, they have different conceptual frameworks, they have different accounting policies and they are implanted by different institutions of government in different ways (Jones, 2000). The role of accounting and financial reporting are key factor that determines many decisions that are taken on a daily or short term basis. The quality of government financial reporting is also reflected in the correctness of the decision of the managers (Zdravkoski, 2018). Most of the government plans for the future development of the public entity and not-for profit unit are prepared based on the data and information in the financial statement. For making these financial statements there are three basis of government accounting e.g.; the cash basis that record revenues only when cash is received, and expenditures recorded only when cash is paid, irrespective of the accounting period in which the services was rendered or the benefit received, the accrual basis and under this method revenues are recorded when earned and expenditure are recorded as the result in liabilities are known or when benefits are received notwithstanding the fact that the receipt or payment of cash could take place or partly in another period, and the commitment basis that records an anticipated expenditure evidence by contract or by a purchase order or determined by administration. Practicing accrual basis accounting system is almost absent in Bangladesh due to lack of knowledge. This study will minimize the gap of using accrual basis accounting in the government sector.

3.0 Rationale of the study

In government accounting, spending money does not generate more revenue, but business does. So, a strong accounting system is necessary. Government accounting is necessary for international comparison and making sustainable strong market economy. As the government takes loan from other government for running its activities, hence it is very much necessary to set up accounting standards, laws and regulation for recording and reporting of governmental financial activities. All government sector organizations must maintain systematic records so that (i) financial requirements can be estimated and (ii) the measurement of the use of these financial resources can be established and the relative efficiency and effectiveness of the organization in using them can be assessed. Value for money is the utmost importance, especially when taxation or charging levels are high or increasing rapidly. Accounting

procedures must be directed towards ensuring that the maximum benefit is obtained from the limited resources (Frank Wood's, 2008). The owner of the state is its citizens, whether they are poor or rich, elite or lower class. So the managers of the public money should inform the governmental financial and non-financial performance to its citizenry regularly on ward, union, upozila, district as well as secretariat zone in a manner as the people feels convenient. The necessity of applying accrual basis accounting in government/public sector enterprise is to prepare financial statements, reuse of assets and waste minimization at all levels of government using the equation of **Assets = Liabilities + Fund balance/Government Equity⁹**. Where, Assets represents current assets, Liabilities represent current liabilities and Fund balance represents reserve and unreserved fund and government equity means the capital provided by the government for running the enterprise. Accrual basis accounting helps in recording and reporting the state's financial activities and measuring the following resources, liabilities and capitals properly:

Table 1: Government assets, liabilities, revenues, expenses and their basis of reporting

Assets ¹⁰	Liabilities	Revenues	Expenditures	Basis of accounting
Capital assets: Land, Improvement to land, easements, buildings, building improvements, vehicles, machinery, equipment, work of historical treasures. Infrastructure assets: Satellite, Roads, bridges, tunnels, drainage systems, water and sewerage systems, dams and lighting systems. Shared capital assets: City hall, state office building that serves different functions from a unit.	Current and noncurrent liabilities: Accounts payable, Compensated absences, claims and judgments, due to other funds, compensated absences, claims and judgments, bonds, notes, and loans payable, payable to other governments, deferred revenue	General revenues: All revenues are general revenues e.g.; sales tax, property tax, franchise tax, income tax, all other non-tax revenues including interest, grants and contribution. Program revenues: Charges for services, utilities etc.	General government: Public works, public safety. Education, health, engineering services, cemetery, community development, culture and recreation. Debt service: Principal, interest and other changes, capital outlay, depreciation. etc.	For all the cases customized cash/accrual/ modified accrual basis of accounting procedures should be applied by the government for measuring performance and implementing governmental long term visionary plan of development.

⁹ Government Equity Accounts and Guidelines (Up to December 31, 2017), Ministry of Finance, Bangladesh

¹⁰ Financial assets are not considered as it is used cash basis accounting for reporting.

¹¹ Buildings except those are an ancillary part of a network of infrastructure assets, should not be considered infrastructure assets for purposes of this statement. These types of assets should not be depreciated.

4.0 Budget Review Calendar (Revenue generation point of view)

Budget calendar is the future plan of generating revenues and approving expenditures to the purposes for the government at different levels and many other institutions. This calendar has been prepared by considering the Adam Smith principles of taxation ¹² as applicable for the citizens of Bangladesh.

Table 2: Budget Calendar

Months ¹³	Budget Calendar activities ¹⁴
September1-29	NBR officers met with a regional revenue advisory team at national, local and village level of government for estimating projected revenues.
September 30- October 14	Presentation a report to the commissioners ^a a with comprehensive set of recommendations and first round of appropriation requests
October 15-30	Commissioners will contact with central govt. with recommendations by the advisory council.
October 31- Novemvber-14	Adoption of revised income tax and revenues accelerating policy, exemption or deduction where necessary.
November 15-29	Arranging country wide tax fair.
November 30- December-14	Country wide VAT fair.
December 15-31	Upholding the preliminary fiscal plan for upcoming fiscal year budget to citizenry. Review of enterprise, special revenue, and other funds and take action when necessary.
January 1-14	Forming VAT/Tax education forum in different educational institution and within the society across the country for consciousness and revenue generation. Approval of appropriation request for the balance of the general fund
January 15-March	Public hearing on proposed budget (Dialogue should be held on between statesmans to farmers)
April 1-30	Necessary amendment (draft) should be done on Fiscal Act for the upcoming budget, if necessary.
May 1-31	Printing, binding and presenting budget document to stakeholders for month wide discussion in the parliament after opening for all.
June 1	Presentation of budget in the parliament

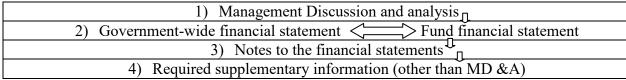
a. District Commissioner (DC). All appropriation and approvals of fund, policy and necessary actions related with budget will be passed, taken and enforced by the decision of the cabinet and ECNEC meeting proceedings adjusting the calendar date/s.

¹² In The Wealth of Nations (1776), Adam Smith argued that taxation should follow the four principles of fairness, certainty, convenience and efficiency. Fairness, in that taxation should be compatible with taxpayers' conditions, including their ability to pay in line with personal and family needs.

¹³ July- August months are reserved for innovation and idea generation for upcoming year budget.

¹⁴ Applicable for all levels of Government.

To ensure transparency in government sector Government Accounting Standard Board (GASB) Statement No 34. has recommended the following requirement for the general purpose external financial statements:



Source: GASB No. 34, June 1999. p.5

Financial statements and measurement practices used in general governmental and fund accounting is given below:

Table 3: Fund name, Required financial statement and Basis of measurement

Fund name and types	Required financial statements	Basis of measurement		
(1) Government fund (a) The general fund (b) Special revenue funds (c) Capital project fund (d) Debt service fund (e) Permanent funds	(1) Balance Sheet(2) Statement of revenue,expenditures, and changes in fund balances.	➤ Current Financial Resource Measurement Approach ➤ Modified accrual basis accounting method		
(2) Proprietary funds: (b) enterprise fund (c) Internal service funds	 (1) Statement of net assets or balance sheet¹⁵ (2) Statement of revenue, expenses, and changes in fund net assets of fund equity¹⁶ (3) Statement of cash flows 	➤ Economic resource measurement approach ➤ Accrual basis accounting		
(3) Fiduciary funds and similar component unit (a) Pension(and other employee benefit) trust fund (b) Investment trust fund (c) private-purpose trust funds (d) Agency funds	(1) Statement of fiduciary net assets(2) Statement of changes of fiduciary net assets.	Economic resource measurement approach Accrual basis accounting		
(4) Segment information ¹⁷	 (1) Condensed Statement of net assets (2) Condensed Statement of revenue, expenses, and changes in fund net assets (3) Condensed Statement of cash flows 	Measurement basis is not clearly stated at GASB statement no. 34.		

_

¹⁵ Either a balance sheet or a net assets format may be used. For convenience, only the statement of net assets is referred to in this Statement.

¹⁶ Either fund net assets of fund equity may be used as the label for the difference between proprietary fund assets and liabilities; for convenience, only the term net assets is used in this statement.

Table 3: Fund name, Required financial statement and Basis of measurement

(5) Reporting Component Units	(1) Condensed Statement of net assets	➤ Measurement basis is not	
	(2) Condensed Statement of activities	clearly stated at GASB statement no. 34.	

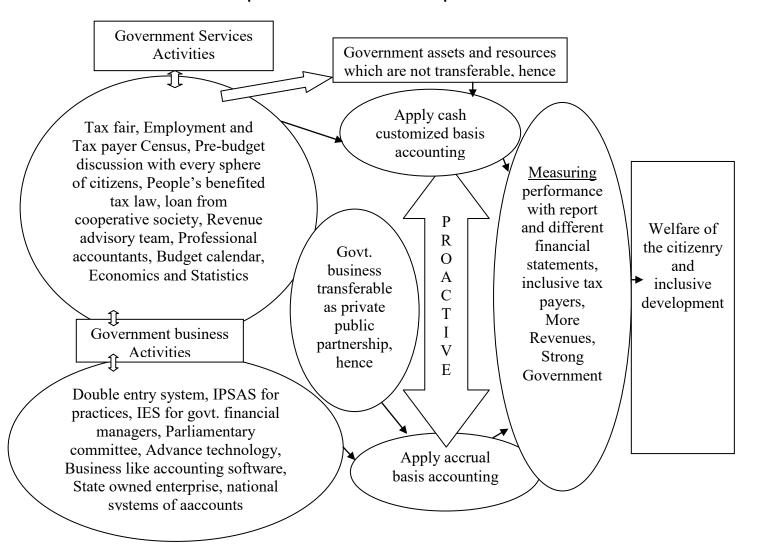
5.0 Concept of different elements regarding governmental accounting

Terms	Explanation
Primary government	A state government, To qualify as a primary government, one must have a separate elected governing body, separate from other primary governments and must be fiscally independent. Fiscal Independence = determine budget, tax, issue bonds.
General government	General purpose local government (e.g., a city, town, village, township, borough, county, etc.)
Special purpose government	Special purpose government that has a separately elected governing body, is legally separate, and is fiscally independent of other state or local governments
Sponsoring government	A government-sponsored enterprise (GSEs) is a quasi-governmental entity established to enhance the flow of credit to specific sectors of the economy. Created by acts of the parliament, these agencies provide public financial services. GSEs help to facilitate borrowing for all sorts of individuals, from students to farmers to homeowners.
Components unit	A component unit is a legally separate government for which the elected officials of the primary government are financially accountable or an organization whose exclusion would cause statements to be misleading. To be a component: The primary government is able to impose its will upon the component (Board member, budgets, decision overrules). Component is able to impose burden on the primary government (obligation of debt).
District component	An organizational unit that raises and holds economic resources for the direct benefit of a governmental unit (GASB Statement no 39).
Landfill unit	A landfill is a large area of land or an excavated site that is designed and built to receive wastes. (GASB Statement no 18).

¹⁷ Segment disclosure are not required for an activity whose only outstanding debt is conduit debt for which the government has no obligation beyond the resources provided by related leases or loans In addition, segment reporting is not required when an individual fund both is a segment and is reported a major fund.

6.0 Theoretical model of the study

Figure: Theoretical model for government accounting and people's Benefitadopted from researcher's experience.



PROACTIVE stands for: Professionalism, Reliability, Objectivity, Accountability, Credibility, Transparency, Integrity, Viability, Ethics (Adapted from core values of CAG, http://www.cagbd.org/)

The above model has been developed after critically review the literature of government accounting, laws and regulation, international public/government sector accounting and education standards, public financial management reports and reform strategy published by the different national and international authority for taxation and governmental accounting for meeting current demand and for future knowledge generation. In the above model government activities have been differentiated in two categories. viz.; governmental services activities that fix the variable for raising public money and ensuring operational and fiscal accountability. As per this assumption, government assets are not transferable. Hence, it has been suggested to use cash customized government accounting method for reporting and measuring services activities.

On the other hand, the governmental business type assets can be transferable to private ownership in the form of Public Private Partnership (PPP) at a certain percentage. In that case applying accrual basis/modified accrual basis accounting systems is strongly suggested. If the total systems are applied duly, then with the help of the different financial statements, clearly presented management discussion and analysis section, required supplementary information and notes to the financial statements, balance sheet and cash flow statements will ensure transparency in governmental financial management. It will be able to compare intra governmental operations and accounting within the international donor groups and lending agency. Ultimately general welfare to the citizenry of the country will be ensured and balanced development must be expedited systematically.

7.0 Objectives of the Study

The general objective of the study is to determine the strategic way forward for collecting taxes and evaluating government accounting procedure as a tool for ensuring operational and financial accountability of the government and effective policy making for corruption free balanced development in Bangladesh. To achieve the general objective some others specific objectives are as follows:

- 1) To establish suitable effectiveness criteria for recording and reporting of revenues, expenditure and government accounting system.
- 2) To determine the factors associated with the effectiveness criteria for budgeting and government accounting system.
- 3) To develop an explanatory theory that associates certain factors with the effectiveness of revenues, expenditure and government accounting systems.
- 4) To evaluate the government accounting procedure as a tool for policy formulation and effective taxation for the all levels of government in Bangladesh.

8.0 Methodology of the study

This is an exploratory study. In carrying out the present study, both quantitative and qualitative method is being followed. Social Constructionism research philosophy is used in conducting this research. Inductive research approach is applied to develop theory. Total sample has been 30. Of which some are business graduate (receiver of services) and some are employees (Practitioners of government accounting in different levels) working at the chief accounting officer of ministry of Science and Technology situated at Segunbagicha, Dhaka, Bangladesh. Telephone interview was conducted with the four professional accountants for taking their opinion. An upozila accounts officer and some academician's practical and research experience is placed to fill the gaps and short fall. Both primary and secondary data have been used to carry out the research. For collecting Primary data a structured mailed questionnaire was sent to the aforementioned office. For collecting secondary data Primary sources that is, reports, thesis emails, conference reports, company reports, some governmental publications, Budget speech, unpublished manuscript sources, some secondary sources i.e.; newspapers, books, journals, internet, some tertiary sources i.e.; indexes, abstracts, colleagues encyclopedias, dictionaries, bibliographies and citation indexes are studied and analysis. Questionnaire was designed based on the previous studies adopted for developing public sector accounting framework by, Financial Management Academy (FIMA), Institute of Public Finance, Bangladesh (IPF), Consortium of International Government Accounting Research (CIGAR) Network, International Consortium for Governmental Financial Management (ICGFM), Government Accounting Standard Board (GASB), International Monetary Fund (IMF) and World Bank group.

9.0 Analysis of data

Table 4: Variable relating to revenues

Key variables	Total respondents	Yes in %	No in %	No comment
a) Having ideas about recording and reporting govt. revenue in terms of taxation and financial transaction	30	93.33	6.67	nil
b) Employment and taxpayers census needed by NBR	30	96.67	3.33	nil
c) Pre-budget discussion needed with general people of the country.	30	83.33	16.67	nil
d) taking loan from farmers and cooperative society to meet deficit budget	30	93.33	6.67	nil
e) Taxation is less needed but making profit of govt. enterprise should enhance	30	100	00	nil

From the above analysis it is seen that most of the people of the country having idea about reporting and recording of revenues through taxation and financial transaction. But when they asked to write down the ideas they didn't do that. The general citizens of the country have emphasized on the employment and taxpayers census for grooming tax revenues. For utilizing money from the people of the country they have been directed to the government to take loan from the cooperative society for meeting deficit budget. Majority respondents opine that prebudget discussion should hold between government and public. 100% people are thinking that the profit by the government enterprises should maximize to reduce the tax burden of the people.

Table 5: Ensuring accountability and establishing just society

Key variables	Total respondents	Yes in %	No in %	No comment
a) Revenue collection advisory team	30	86.67	13.33	nil
b) Demonstrating collected revenues on digital devices	30	90.00	10.00	nil
c) Developing AIS for performance measurement	30	83.33	13.33	3.34
d) Tax payers oriented law and act	30	86.67	13.33	nil

Above analysis showing that most of the people of Bangladesh suggested forming revenue advisory team across the country to generate more revenues on time. For measuring government performance Central Accounting Information Systems (CAIS), some taxpayers' benevolent laws must be introduced by the government. They also suggest that, as the collected revenues are the public money; hence, it should be displayed digitally regular basis at the convenient

place of the collector. Majority number of respondents thinks that Accounting Information Systems (AIS) should play central role in making governmental decision about resource management and expenditure control.

Table 6: Reforms and standard setting in public sector

Key variables	Total	Yes in	No in	No
	respondents	%	%	comment
a) CGA office replaced by professional	30	80.00	20.00	nil
accountant				
b) Applying double entry accounting system in	30	86.677	10.00	3.33
public sector				
c) Adopting IPSAS for worldwide comparison of	30	100	00	nil
govt. activities				
d) IES and FIMA, IPF for skill building by	30	86.67	13.33	nil
Pertaining training				

With the expanding scope of the economy of Bangladesh the functions of the government financial managers has also been expanded. In line with expansion the government is placing 7th five year development plan, Delta Plan-2100, producing some medium term development budget before the citizenry. Hundred percent people think that, government should adopt International Public Sector Accounting Standards for international comparison and to recognize receivable and payable and for meeting the government guarantee. In that regard professional skill building needed for public financial managers through maintaining International Education Standards. Comptroller General of Accounts (CGA) office should replace by the professional accountant over civil servants. Double entry accounting system is needed for communicating economic events by the government. Newly appointed civil servants must undergo training pertaining by FIMA/IPF.

Table 7: Way of adopting GASB statement no.34 and IPSAS

Key variables	Total respondents	Yes in %	No in %	No comment
a) Reluctant of MPs	30	76.67	20.00	3.33
b) ICAB role over FIMA and IPF on strengthening public financial management	30	43.33	nil	56.67
c) Parliamentary committee should strongly oversight the public accounts of the republic's	30	100	00	nil
d) Needs of government financial managers council	30	100	00	nil

More than seventy-five percent people of the country think that governmental accounting systems has yet updated as the economic sectors expanding rapidly due the reluctant of members of parliament. An important portion of the respondents argued that governmental business type activities should oversight by the Institute of Chartered Accountants of Bangladesh (ICAB). Hundred percent respondents gave their opinion to establish governmental financial manager's council for developing their professional skills. Most important things is

here that the parliamentary committee regarding Public Accounts of The Republic should take intensive care on allocating fund, ensuring accountability and stopping the extravagant expenditure.

10.0 Findings of the study

After carefully analysis of the data and documents following are the major findings have been discovered:

- Financial Reporting Council (FRC) is in sleeping mood after its conception. As a result, it has no contribution for developing any standards/systems for governmental financial reporting practices.
- Building, libraries, museum, highways, parks should be classified as public sector assets.
 These service facilities do not produce probable future cash flow for the government.
 Charging depreciation is not appropriate for service facilities. It is better expensed rather than capitalized.
- Only a budget management act 2009 is operating total government economy of Bangladesh. There is no governmental accounting standard for recording and reporting transactions. International Education Standards (IES) are not followed to enhancing the skills of public financial managers.
- Financial managers are of two types, (a) Government financial managers and (b) Public financial managers. Government finical managers are the executive body (civil servant) and appointed by the elected members of the Republic. Public financial managers are non-executive body (public servant) appointed by the executive body and work under the direct supervision of the executive body.
- In Bangladesh various reform strategies regarding public sector expenditure control/management have been implemented but no strategic project regarding government financial recording and reporting strategy yet to be done.
- A theoretical model has been recommended for future application of accrual and customized cash basis accounting in the governmental sector.
- A budget preparation calendar has been suggested to booming more revenue for strong policy.
- Using accrual based government accounting information systems will enhance the decision making skill of the government over the cash basis accounting.

11.0 Recommendation and conclusion of the study

Government sources of revenues are changing, people's perceptions and concepts about the definition of the government is changing, government budgeting systems changing, total GDP increasing, social safety net and other activities of the government also changing. So it is very important issue of developing a uniform governmental accounting system. Establishing strong accounting system in government sector is necessary because the current time emphasizes on what departments produce rather than on what they have available to spend. It is strongly recommended that the whole systems of government accounting should be digitalized by the 2025. With the dimensions of Industry 4.0, the "on demand" economy is being emerging across the world. In this economics system, corporate giant like 'face book' and 'Amazon' those do not have any content but are they are the richest company of the world. Revenue generation and taxation of the People's Republic of the Bangladesh will undergo through block chain method by 2020 as stated in budget speech 2019-2020. World largest GDP country's budget

management systems have changed. So redesigning of recording and reporting of Bangladeshi governmental/civil service accounting activities is necessary for ensuring accountability. Redesigning of skills is necessary for nursing public money. Proper nursing of public money may bring the sweetest fruit for the people of Bangladesh. In the pathway of development of Bangladesh accrual basis accounting is the next step to start finessing the intellectual infrastructure, making public services easier. Moreover, to reduce the tax burden from people government should give deep attention on profit making planning in the state owned enterprises which need accrual basis accounting.

References

- Adenugba, Adetunji, Adesoji, Ogechi, Faith, Chike (2013). "The effect of internal revenue generation on infrastructural development: A study of Lagos state of internal revenue service". Journal of Education and Social Research. Vol. 3(2). pp.419-436.
- Arslan, Coskun, Mihriban (2017). Historical development of government accounting". Accounting and corporate reporting today and tomorrow. pp. 239-275.
- Amirthalingam, K (2013). "Importance and issues of taxation in Sri Lanka". International Journal of theory and practice: Colombo Business Journal. Vol. 04, No 01: pp. 43-52.
- London: Secretaries of the treasury.
- Bangobondhu sheikh Mujibur Rahman, Six point demand declared in 5th February, 1966 at Lahore, Pakistan. Demand No.4.
- Brian, Roach (2010). "Taxes in the United States: History, fairness and current political issues" Global development and environmental institute. Tufts University
- Better accounting for the taxpayer's money: Resource accounting and budgeting in government (1994). A consultation paper.
- Bogui, B. Fredric (2009). "Handbook of government accounting." United States: CRC Press. Financial reform project of Turkey, 2002.
- Gideon, Zhou, Alouis, Madhikeni (2013). "Systems, process and challenges of public revenue collection in Zimbabwe" American international journal of contemporary research. Vol. 3 No. 2.
- Government Accounting Standards (GASB No. 34) Series, No.171-A. June 1999, p. 76
- Government of People's Republic of Bangladesh, Finance Division, Ministry of Finance (2018). "public financial management (PFM)." Action Plan 2018-2023.
- Government equity accounts and guidelines (2017). Government of People's Republic of Bangladesh, Finance Division, Ministry of Finance.
- IMF(2015). "Current challenges in revenue mobilization: improving tax compliance". Washington, D.C.
- Ives. Martin, and et al (2009). "Introduction to not for profit and governmental accounting", Sixth edition. London: Pearson education limited. p.25.

- Jones, Rowans (2000). "Public versus private: The empty definitions of national accounting". Financial accountability and management. 16 (2): pp.167-178.
- Jones, Rowans (2000). "National accounting, government budgeting the accounting discipline". Financial accountability and management. 16 (2): pp.101-116.
- Kautilya's Arthasatra (Translated by R. Shamasastry), "The business of collection of revenue by the collector general and The business of keeping up accounts in the office of the accountants".pp. 77-82.
- Kumshe, Gimba, Mustapha, Bukar, Kagu (2013). "Cash management, Revenue and cost effective methods of revenue collection at local government level". International journal of basic and applied science. Vol. 01, No 04: pp. 834-839.
- Ouda, Hasan, Dr. (2019). Information fit: Theory based on governmental accounting information matching between producers nd users". International journal on governmental financial management, vol.19, No. 1. pp.1-31.
- President Theodore Roosevelt, 26th president of the United States from 1901 to 1909, The New Nationalism, 1910.
- Smith, Adam (1776) "An inquary into the nature and causes of the wealth of nations". London: Metues and co, Ltd.
- Saunders Mark, Lewis Philip, Thornhill Adrian (2007), Research method for business students, Third Edition, Delhi, India: Pearson education limited in south Asia
- Uchenna, Wilson, Ani, Obara, Chukwuma, Lawyer (2005), "Public sector accounting: Principles and Practice". Port Harcourt, Nigeria: The blueprint limited.
- Verri, Pietro (1728-1797) "The New Palgrave Dictionary of Economics", pp.1-2
- Wood, Frank, Sangster, Alan (2008). "Business Accounting." Eleventh edition, England: Pearson education limited. pp.486-494.
- Zaheer, Rummana (2013). "The economic performance of SAARC member countries". Research on humanities and social science. Vol. 3, No. 05: pp. 201-214.
- Zdravkoski, Ignor (2018). "Concepts of the accounting basis of government accounting". IX. IBNESS Congress Series-Edirne/ Turkey, September 29-30, 2018.

Websites:

```
(http://www.cagbd.org/)
(http://www.cigar-network.net/)
(https://www.fima.gov.bd/)
(https://www.icgfm.org/)
(http://ipf.org.bd/)
(https://mof.gov.bd/)
(https://studopedia.org/1-79081.html).
```

The Efficiency of Personnel Costs Utilisation among MDAs in Nigeria: The Data Envelopment Analysis Approach

Rafiu Oyesola Salawu, Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria, Department of Management and Accounting, osalawu02@yahoo.co.uk, osalawu@oauife.edu.ng

Philip Olawale Odewole, Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria, Department of Management and Accounting, waleodewole@gmail.com (Corresponding Author)

Abstract

The study investigated the efficiency of public sector entities in the utilisation of personnel cost releases to Ministries, Departments and Agencies in the education sector in Nigeria.

Population of the study comprised forty -five (45) DMUs made up of federal universities, federal polytechnic and federal colleges of education within four (4) geo-political zones and Abuja. Purposive sampling method was employed in selecting twenty-five (25) DMUs. Secondary data were sourced from the Annual General Warrants from the office of the Accountant- General of the Federation and Audited financial statements of the Public Sector entities on personnel costs, capital grants and overhead cost releases to the DMUs.

Data were analysed using Data Envelopment Analysis (DEA). The findings revealed that the DMUs were not efficient in personnel cost utilization. The results of the average efficiency scores with the application of both Charmers, Cooper and Rhodes Model (CCR) and Banker, Charmer and Cooper Model (BCC) showed 0.70 and 0.69 efficiency frontiers respectively. The summary of the overall results therefore revealed that there was no full efficiency of 100% in the utilization of personnel cost releases among the sampled DMUs. The study recommended that a central monitoring unit be created jointly by the Federal Ministry of Finance and Accountant – General's office to ensure full utilization of personnel cost releases among the DMUs. The study therefore concluded that only periodic assessment, regular evaluation and integration of the size of the payroll of the DMUs with the personnel cost releases by the central authorities can guarantee full efficiency scores in the utilization of personnel cost releases to the Public Sector entities in Nigeria.

Keywords: Efficiency Scores, Decision Making Units (DMUs), Data Envelopment Analysis, CCR, BCC

1.0 Introduction

The public sector entities (PSEs) are the organizations that carry out public programme and provide general services, redistribute income through the pool of wealth available and supported with statutory taxes or levies. They include government parastatals and agencies, corporations and public enterprises (Kara, 2012). These entities are in three (3) broad categories: public sector entities that are fully funded by the central authority, public sector entities that are partially funded by the central authority and the last group are the ones that are not funded by the federal government but generate enough revenue to meet its obligations. There are three (3) major sources of funding that are generally attracted to the PSEs by the federal government: the personnel cost releases, the overhead cost releases and capital grants allocations. One of the greatest puzzles of the public sector entities is the measurement of the efficiency of utilization of various public financial releases allocated to the sector. The personnel cost releases assumes the

largest size among the chains of financial releases to the public sector entities which are dedicated for the payment of salaries for the different categories of staff members in the organization as personal emolument.

Before the introduction and implementation of Integrated Personnel and Payroll Information System and Government Integrated Financial Information System, personnel cost allocations were released directly by the central authority to the entities through the designated statutory personnel cost accounts of the different Ministries, Department and Agencies with the Central Bank of Nigeria on monthly basis in line with the approved personnel cost budget for the current year. This practice enabled the entities to exercise absolute control on disbursement of the personnel cost releases. There was a shift in the operation however with the introduction of IPPIS and GIFMIS among the MDAs. These two platforms are currently used for processing the payment of salaries to employees in the public sector entities. The determination of the efficiency of various Decision Making Units in the effective utilization of personnel cost releases by the central authority is the main objective of this paper. Data Emolument Analysis (DEA) was employed as a tool in the determination of the efficiency scores of various public sector entities. DEA as a non-parametric method used to measure the technical efficiency of the entities and their capacity to minimize inputs at a given level of outputs or maximize outputs at a given level of inputs among the Decision Making Units (DMUs) was employed. A DMU is efficient when its efficiency score is 100% or 1 and is able to produce a certain amount of inputs, or use the same amount of or less inputs to produce a given amount of outputs while a revise is applicable for the less efficient DMU. The remainder of this paper is as follows: following the introductory section, section two reviewed the literature, section three discusses the methodology, section four presents and analyses and discusses results while section five gives the policy recommendations and conclusion.

2.0 Literature Review

Farrel (1957) started the modern efficiency performance measurement. He considered the Economic efficiency was considered as the ability of the public sector entities to obtain maximum output from available input resources. Conventionally, the indices used to evaluate performance in the private sector such as profitability ratios, Return on Asset, unit cost ratios are grossly inadequate measures of performance in the public sector (Coelli, 1992; Bowlin, 2018). The adoption of DEA in the determination of the efficiency of the public sector entities therefore filled this gap (Johnes & Johnes, 1993, Beasely, 1997, Madden, Savage & Icempkes (1997). Bren and Raab (1994) engaged DEA analysis to assess relative efficiency of the top 25 universities in the United States. The findings showed that the most prestigious universities always attracted a high degree of satisfaction among students. Many finance and accounting scholars have given curious attentions on the studies of efficiency of companies (Thore, Kozmetsky & Philips, 1994; HSU & LIU, 2008; Joshi & Singh, 2009). Beasely (1997) examined the relative efficiency of 45 British Universities for the years 1990-1996. The findings revealed apparent differences among higher educational institutions. Chandra (1998) assessed the performance efficiency of Canadian textile companies using the DEA-CCR with the input being number of labour and average annual investments and outputs were the annual sale values. The researches for the performance efficiency of the entities are not restricted to the developed nations alone. Similar researches were also carried out in the developing nations of the world. Canonical Correlation Analysis (CCA) was employed in line with (Friedman and Sinuary-sterm1999). Also, Basso and Funari (2001) developed a performance evaluation model for investment funds using a DEA Approach to measure the mutual fund performance of an

organisation. The conclusion supported the proposition that DEA is a useful tool used as a bench mark for determining a Mixed Portfolio for each specific fund of the enterprise. Assessment of the efficiency of a public institution in the use of various allocations received from the federal government has been a major concern to many finance practitioners across the globe. Galagedera & Silvapulle (2002) examined the Australian Mutual Fund Performance Appraisal. DEA was used to measure the relative efficiency of many investment funds in Australia. The efficiency test was carried out using different input-output variations models by the authors and concluded that some were efficient while some were not. Efficiency of an entity occurs when a set of output is maximized given a set of inputs or when a set of inputs is minimized for a given output (Saranga & Phoni, 2004). Saranga and Phoni (2004) also employed DEA to measure the technical efficiency of British Universities. Their findings revealed that only a few were efficient. Khajavi, Salami Ford and Rabiyeh (2005) used the DEA for determining the portfolios of efficient companies in Tehran's stock market and concluded that many of the companies were technically efficient. Numerous authors have carried out researches on the efficiency of public institutions in the developed world (Kempkes & Pohl, 2018, Warning, 2005) using DEA. The results revealed that DEA is a reliable yardstick in assessing efficiency performance of the organisations. Recent writers adopted both parametric and non-parametric approaches of Data Envelopment Analysis (DEA) and Stochastic Production Approach (SPA) respectively (Wu, 2005, Radam & Abdullah, 2008). Erkat and Hatice (2007) employed the DEA with specified inputs and outputs to analyse the performance of 500 industrial companies in Turkey. The findings indicated that only nine firms were efficient during the research periods. The primary intention of DEA was to evaluate the relative performance efficiency of public sector entities such as schools and hospital but is not limited to that because business firms and industries also employ it to analyse msonetary values (Erkut and Hatice, 2007). Previous studies revealed that basic conventional ratios were engaged in the analysis of efficiency of performance of public entities by early researchers (Ponnu & Ramthandin, 2008).

Khajavi, Ghayuri Moghadam & Ghaffari (2010) conducted a research on the analysis of financial statements using different financial ratios with a DEA and financial statements of 267 corporations. The results revealed that 90 companies under investigation were adjudged efficient while the remaining 61 companies were inefficient. DEA was used to estimate the performance efficiency of manufacturing companies of China and Turkey (Liu, 2010). The study concluded that the application of DEA is suitable to estimate firms' efficiency. Tahir and Yusuf (2011) also used the DEA-CCR and DEA-BCC with inputs and outputs to appraise the efficiency of 14 Malaysian public listed enterprises. The result disclosed that only one company was relatively efficient while the others are inefficient. Tehrani, Mehragan & Golvani (2012) examined the financial position of companies in Tehran using DEA on 36 companies. Their findings revealed that only 9 companies were efficient while the remaining 27 companies were inefficient. Tehrai, Mehragan and Golvani (2012) considered 36 Australian public universities in their research and concluded that majority of them were efficient.

In Nigeria, efficiency of the public sector entities has been attempted by few authors. Igbinosa (2008) measured the relative efficiency of Nigerian universities. DEA's technique was employed in the estimation. The results of the finding indicated that not all Nigerian federal universities are technically efficient. DEA was also employed to measure efficiency of staff of a particular section of university of education with their web metric ranking (Liu and Lewis, 2010). The findings revealed that DEA was a highly valuable tool in measuring organisation's

efficiency. Abdulkareem and Oyeniran (2011) employed the DEA to determine the technical efficiency of the universities in Nigeria. The conclusion was that only a few of Nigerian universities are efficient. Inu and Maduabun (2014) also applied DEA as a tool for determining the efficiency of selected federal universities in Nigeria. The results revealed that only four (4) (23.5%) of the 17 federal universities under study were efficient.

3.0 Methodology

3.1 Data

The population of the study consists of forty -five (45) public sector entities in the education sector at the federal level within the (4) geo-political zones and Abuja. Purposive sampling was used to select twenty -five (25) Decision Making Units (DMUs) in the sector. Data were obtained from the office of the Accountant- general of the federation and the audited annual financial statements on the personnel costs, capital grants and overhead cost releases to the DMUs by the central authority. The Data Envelopment Analysis (DEA) was used to analyse the inputs and outputs in the sampled DMUs in order to evaluate their efficiency in the periods covered by the study. The study adopted both the input and output oriented versions in the assessment of the efficiency of the entities Both the Charmer, Cooper and Rhodes model (CCR,1978) based on Farrel's research (1957) and Banker, Charmers and Cooper model (BCC) were employed. The beauty of the CCR is in optimizing the ratio of outputs to inputs by solving for a group of weights that comply with a system of linear equation (Rouse, 1997; Basso & Funari, 2001; Beasely,1997).

3.2 Model Specification

The Charmer, Cooper and Rhodes model and the Banker, Charmer and Cooper model used in optimizing the ratios of outputs to inputs is stated as follows:

```
Maximise Ø<sub>i</sub>
(i)
\emptyset_{iyrj} \dots \dots \sum A_{rj} + S_{ri=0} \dots
                                                        (ii)
r = 1.....s output of public sector
X_{ki} \dots \sum \lambda_j X_{kj-eki} = 0 \dots
                                                        (iii)
k = 1, \dots, m, input of public sectors
X_j \geq 0, S_{ri} \geq 0, ek_i \geq 0...
                                                        (iv)
i = 1
i, j = 1 \dots n public sector in the sample where
\emptyset = proportional increase in output possible;
S_r = r - tn output slack
ek = k - th input-slack
A_i = weight or intensity variable used to derive all possible linear combinations of the
sample observation when the value of \emptyset_i, in equation (i) is 1,
\mathbf{A}_i = 1 and
A_i = 0 for i \neq i
```

The i-th public sector entity lies on the frontier and is technically efficient. For the inefficient entities, $\emptyset > 1$, $\lambda_i = 0$ and $\lambda_j \neq 0$ for $j \neq 1$, where j denotes the efficient public sector entity

in the sample. Inefficient public sector entities also have some positive output or/and input slacks. The output based technical efficiency index of the i - th public sector entities (Tes) are computed as follows:

$$\frac{\Lambda}{vri} = \sum X_{rjyri} = \emptyset_{iyri} + S_{ri}...$$
 (vi)

Equation (vi) shows that the projected output consists of two components, one representing the proportional increase in all output (\emptyset_{iyri}) and the other accounting for the non-proportional increase or output slack (S_{ri}) . Beside, estimating the maximum output from fixed inputs, the output oriented DEA in equation (i) also estimated the input slacks (excess input) that was conserved for an inefficient public sector entity to be fully efficient mathematically, the projected amount of the k-th resource of the i-th public sector entity (X_{ki}) are expressed as follows:

$$X_{ki} = \sum X_j X_{kj} = X_{ri-eki}...$$
 (vii)
 $k = 1 \dots m \text{ input}$

The study adopted two DEA models with an input and output oriented versions. The first model developed by Charmes (1978) was called the CCR model. The second model was named the BCC model, developed by Banker (1984). The CCR model is built on the assumption of constant returns to scale (CRS), whereas the BCC model is built on the assumption of variable returns to scale (VRS). The relative efficiency evaluated by the CCR model is the overall efficiency score and the one estimated by the BCC model is the pure technical efficiency score. These scores are typically defined on the internal [0, 1].

The Charmes, Copper and Rhoda (CCR) Model

According to Charmes (1978), the fractional form of the CCR linear programming model is given as follows:

$$\begin{split} &\eta_0 MA = \frac{\sum_{r=1}^s uryro}{\sum i \epsilon IDV_i X_{io}} \\ &\text{Subject to} \\ &\frac{\sum_{r=1}^s uryrj - \sum i \epsilon /FV_i (x_{ij} - x_{io})}{\sum i \epsilon IDV_i x_{ij}} \leq 1 \quad j \epsilon [1 \dots N] \\ &u_{ri} v_i \geq \epsilon > for \ r \epsilon \ (1 \dots s) \ and \ i \epsilon ID \\ &v_i \geq 0 \ for \ i \epsilon /F \end{split}$$

Where u and v are the weights of the input and output, i and r are the output and input of DMU. Liu (2010) views it as a technically complex model. The model is modified based on the Cooper's modification (Cooper, 2000).

Max
$$\phi_0 + \varepsilon \left(\sum_{r=1}^s S_{r0}^- + \sum_{r=1}^m S_{i0}^+\right)$$

Subject to
$$\sum_{j=1}^N y_j y_{rj} - S_{r0}^- = s \phi_0 y_{r0} r \varepsilon [1, \dots \dots s]$$
$$\sum_{j=1}^N y_j x_{ij} + S_{i0}^+ = x_{i0}, i \varepsilon [1, \dots m]$$
$$\phi_0, y_{ii} S_{r0}^-, S_{i0}^+ \ge 0$$

Where, ϕ_0 is the measure of efficiency of the Decision Making Unit (DMU) "O" in the set is $j=1,2,\ldots n$ DMUs rate related to other, ε is an infinitesimal positive number used to make both the input and output coefficient positive. S_{r0}^- is the slack variables for input constraints, which are all constrained to be non-negative, and S_{i0}^+ is the slack variables for output constraints, which are all constrained to be non-negative. y_j is the dual weight assigned to DMUs.

The BBC Model

According to Banker (1984), the BCC – model enables expression of the (input) technical efficiency measure for DMU. Therefore, it has the same equation employed in the CCR – model, but with convexity constraint for modification (Been and Raabi, 1994).

Max
$$\phi_0 + \varepsilon \left(\sum_{j=1}^s S_{r0}^- + \sum_{r=1}^m S_{i0}^+\right)$$

Subject to
$$\sum_{j=1}^N y_j y_{rj} - S_{r0}^- = \phi_0 y_{r0} \ r\varepsilon \ [1, \dots \dots s]$$

$$\sum_{j=1}^N y_j x_{ij} + S_{i0}^+ = x_{i0}, i\varepsilon \ [1, \dots m]$$

$$\sum_{j=1}^N y_i = 1$$

$$\phi_0, y_{ii} S_{r0}^-, S_{i0}^+ \ge 0$$

If convexity constraint $\sum_{j=1}^{N} y_i = 1$, it implies that DMU "O" is currently operating at the most productive scale size for the discretionary inputs, given the fixed level of non-discretionary input. However, if $\sum_{j=1}^{N} y_i > 1$, it implies that DMU "O" is operating at a scale greater than the most productive scale size for the discretionary inputs. Conversely, if $\sum_{j=1}^{N} y_i < 1$ then DMU "O" is operating in the increasing return to scale region, at a scale smaller than the most productive scale size (Banker, 1984). The DEA models are technically sufficient in the efficiency measurement of the public sector entities (Yu, Barros, Tsai, Liao, 2014).

4.0 Presentation and Interpretation of Results

Figure 1 presented the summary of the analysis of the distribution of efficiency scores using CCR. In 2008, the average mean efficiency score is 0.814. The efficiency scores for individual DMUs for the year were presented in the table. From the table, it can be seen that only one DMU (WAEC) achieved a full efficiency in 2008, meaning that, there was a most productive use of its input resource to achieve 100% efficiency level. Seventeen (17) DMUs performed above the efficiency mean of 0.814 and eight (8) DMUs performed below efficiency mean. In 2009, there was a slight improvement in the number of DMUs with full efficiency. Two (2) DMUs achieved full efficiency scores of 100%. That is, only 2 (two) DMUs within the education sector maximised the input resources (personnel cost) allocated to them by the central authority for the highest productivity without any slack funds. The DMUs are WAEC and NLN. Also, with the slight improvement in the mean efficiency score for the DMUs from 0.814 in 2008 to 0.822 (1.0%), only (18) eighteen DMUs performed above the mean efficiency scores. In 2010, none of the DMUs under consideration achieved full efficiency frontiers. However, there was a general improvement on the overall efficiency performance by an increase of 14.7% over the 2009 efficiency performance. This showed that though, there was no DMU that achieved a full efficiency score, general performance of the DMUs in the effective utilisation of the personnel cost input improved the efficiency frontiers of the overall performance. By implication therefore, it means the personnel cost inputs allocated to the DMUs during the year were effectively channeled to achieve productive output on the average. With the 0.943 as the average efficiency score, (17) seventeen DMUs operated below the average efficiency scores while (18) eighteen DMUs performed below the bench mark of average efficiency score.

Also, there was an improvement in the number of DMUs in 2011 that achieved full efficiency in 2011. The average efficiency score was 0.627. The deviation of the average efficiency score from the full efficiency score was wider than the previous years. The highest efficiency score was 0.768 while the lowest efficiency core was 0.599. With the average efficiency of 0.627, indicating an average slack resources of 0.373 (100 – 0.627) meaning that the DMUs under education sector were inefficient in the utilization of personnel costs allocated to them. Also, with the highest denominated efficiency score of 0.768 among the DMUs, it showed that entities within the sector paraded idle personnel cost funds at the yearend which were neither returned to the treasury or spent for the purpose it was meant for. The idle fund could have possibly been sources of the 13th months salaries that most MDAs within the education sector utilize to pay their workers which were neither budgeted for nor captured in the personnel cost budget of the relevant years.

In 2013, the efficiency frontier continued in the sliding fall with highest efficiency score of the sampled DMUs recorded at 0.321 with a far distance of 0.679 from the full efficiency frontier and the lowest efficiency of 0.201. The year 2013 recorded the lowest average mean efficiency score of 0.3 with a negative return to scale for all the MDAs at 0.30 average efficiency mean. Only (9) nine DMUs operated above this level while (16) sixteen DMUs performed below the average efficiency score. This implies that the DMUs under consideration poorly utilized the allocated personnel cost budgeted to the institutions. Also, that none of the DMUs achieved an average of 50% efficiency score suggested that more than 50% of the personnel costs allocated to the DMUs were not expended for the payment of salaries of staff. It is therefore curious to ask where the excess fund was channeled to in the subsisting year by the DMUs.

The trend improved slightly in 2014, 2015 and 2016 with the average efficiency score stated at 0.632, 0.849 and 0.359 respectively. It is relevant to state that in 2013, when other DMUs under the Ministry of Health joined IPPIS, all the DMUs under the education sector were not migrated to IPPIS. The situation still remains the same. While the central office of IPPIS exercises full control on the personnel cost appropriation and the disbursement among the MDAs under the health sector, personnel allocations under the education are released under the GIFMIS platform with considerable flexibility in pattern of disbursement.

Figure 1: Efficiency Scores in Personnel Costs for the 25 Sampled DMUs in Education Sector (2008-2016) using CCR

S/N	DMU	2008	2009	2010	2011	2012	2013	2014	2015	2016	AVERAGE
1	UNIAB	0.709	0.709	0.975	0.913	0.613	0.318	0.632	0.894	0.357	0.680
2	FLVB	0.999	0.999	0.99	0.908	0.605	0.319	0.633	0.883	0.35	0.743
3	FUTA	0.71	0.71	0.969	0.905	0.621	0.316	0.629	0.877	0.351	0.676
4	WAEC	1	1	0.964	0.913	0.608	0.297	0.629	0.883	0.35	0.738
5	JAMB	0.85	0.85	0.805	0.865	0.629	0.297	0.643	0.825	0.337	0.678
6	UNIABUJA	0.999	0.998	0.988	0.909	0.613	0.319	0.637	0.894	0.4	0.751
7	NOUN	0.845	0.845	0.794	0.801	0.693	0.299	0.63	0.886	0.352	0.683
8	FPI	0.80	0.85	0.943	0.924	0.615	0.297	0.629	0.885	0.351	0.610

Figure 1: Efficiency Scores in Personnel Costs for the 25 Sampled DMUs in Education Sector (2008-2016) using CCR

9	YCT	0.364	0.364	0.957	0.897	0.633	0.297	0.63	0.886	0.352	0.598
10	FCEAB	0.85	0.85	0.956	0.895	0.624	0.297	0.576	0.899	0.39	0.704
11	FCEAR	0.849	0.849	0.944	0.9	0.623	0.295	0.63	0.877	0.396	0.707
12	NEN	0.798	1	0.778	0.78	0.768	0.201	0.71	0.877	0.394	0.701
13	FCEOKENE	0.85	0.85	0.93	0.883	0.636	0.298	0.629	0.877	0.22	0.686
14	FCEONDO	0.85	0.85	0.955	0.895	0.625	0.299	0.63	0.877	0.415	0.711
15	FCEOYO	0.85	0.85	0.942	0.891	0.626	0.297	0.629	0.821	0.405	0.701
16	UI	0.721	0.721	0.987	0.917	0.608	0.318	0.629	0.932	0.299	0.681
17	UNILAG	0.707	0.707	0.985	0.915	0.607	0.32	0.641	0.904	0.385	0.686
18	OAU	0.723	0.723	0.989	0.915	0.608	0.312	0.629	0.884	0.351	0.682
19	UNIBEN	0.707	0.707	0.967	0.921	0.602	0.321	0.633	0.889	0.354	0.678
20	UNILORIN	0.853	0.853	0.976	0.906	0.609	0.27	0.63	0.074	0.424	0.622
21	FEDPOLYADO	0.85	0.85	0.926	0.884	0.632	0.299	0.629	0.878	0.376	0.703
22	FEDPOLYOKO	0.852	0.851	0.964	0.903	0.621	0.297	0.629	0.854	0.342	0.701
23	FEDPOLYOFA	0.85	0.85	0.948	0.787	0.631	0.313	0.629	0.879	0.318	0.689
24	FEDPOLYEDE	0.85	0.85	0.956	0.891	0.599	0.298	0.63	0.916	0.352	0.705
25	FEDPOLYAUCHI	0.853	0.852	0.973	0.721	0.623	0.298	0.629	0.877	0.35	0.686
	MEAN	0.78	0.861	0.945	0.882	0.627	0.3	0.633	0.85	0.359	0.70

Source: Author's Compilation (2019)

Figure 2 showed the number of DMUs that achieved 100% full efficiency during the research periods. From the table, out of (25) twenty-five sampled DMUs among the education sector, only (1) one DMU achieved a full efficiency in the utilisation of personnel cost allocation during 2008 and 2009. In other word, only WAEC operated at the optimal level of efficiency with fully efficiency frontiers of 100% in personnel cost utilisation. Any deviation from full efficiency suggests that the entities need improvement so as to upgrade to full efficiency. That implies that apart from this DMU, others were inefficient in the use of personnel cost allocations. The direct implication is that most of the MDAs within the education sector have unspent personnel cost balances at the end of every budget year. This excess amount could have arisen as a result of bloated personnel budget by the MDAs during the budget years. It can also be seen that after 2009, WAEC also ceased to achieve this feat of full efficiency but rather joined other inefficient MDAs for the rest part of research periods.

Figure 2: Efficiency Scores of DMUS in Personnel Cost Utilisation in Education Sector using CCR

S/N	Year	Name of MDA	CCR Scores
1.	2008	WAEC	1 or 100%
2.	2009	WAEC	1 or 100%
3.	2010	-	-
4.	2011	-	-
5.	2012	-	-
6.	2013	-	-

S/N	Year	Name of MDA	CCR Scores
7.	2014	-	-
8.	2015	-	-
9.	2016	-	-

Source: Author's computation 2019

Figure 3 showed the categorisation of inefficiency among the (25) twenty-five sampled DMUs within the education sector based on their level of inefficiency by comparing individual average range of efficiency scores with the overall mean.

The marginally inefficient DMUs are in the first category with efficiency scores above 0.70 but less than 1 or 100% efficiency frontier. This category of MDAs can achieve full efficiency by raising their standard of output or cutting down on input costs with relatively a little improvement in their operation.

The second category is averagely inefficient MDAs. This group of entities has their efficiency scores greater than 68 but less than 0.70. The MDAs are middle level performing MDAs. To attain full efficiency scores and maximum scale of operation, the MDAs should cut the input resources and increase the output so as to reduce the level of slack fund available for the institution. The third category of DMUs is the distinctively inefficient DMUs. Their efficiency scores range from 61-68. This category is a low-level performing DMUs who could not effectively utilise greater percentage of the appropriated personnel costs during the research periods. Drastic efforts are needed to boost the efficiency level of the entities within this group. It is therefore suggested that proper scrutiny of the personnel payroll of these DMUs will essentially reduce the personnel cost leakages and prevent wastages. In summary therefore, it can be said from the analysis above that DMUs under the education sector are not efficient in the utilisation of personnel cost allocation. From 2008 – 2009, only one DMU achieved the full efficiency of 1 or 100% in personnel cost resource utilisation. All other DMUs from the (25) twenty-five sampled size are either marginally inefficient, averagely inefficient or distinctively inefficient. From 2010 – 2016, none of the DMU attained full efficiency frontier of 1. It is curious to see that majority of the DMUs during the research periods recorded low CCR scores which suggests their needs for over-hauling and appropriate inputs – outputs mix. Part of the measures for those MDAs to achieve a full scale efficiency is a strict examination of their personal cost budgets vis-à-vis the size of the MDA. The management of the MDAs should find a way of reducing the personnel cost inputs and increase the value of salaries payable to the employees.

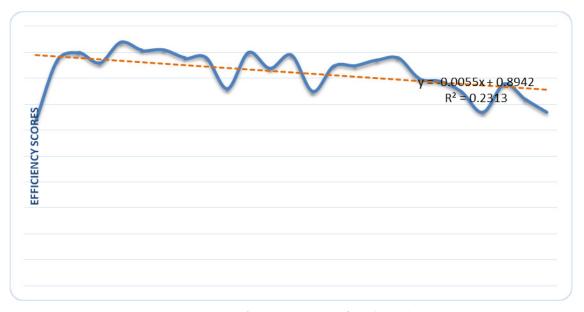
Figure 3: Categorisation of Inefficient MDAS in Education Sector using CCR

S/N	Level of Inc	efficiency	No of MDAs	Range of efficiency scores	Names of MDAs
1	Marginally MDAs	inefficient	12	0.70 < 1	FLVB, WAEC, UNABUJA, FPI, FCEAB, FCEAK, NLN, FCEONDO, FEDPOLYADO, FEDPOLYEDE
2	Averagely MDAs	inefficient	04	0.68 < 0.70	FCEOKENE, UI, UNILAG, FEDPOLYOFFA

S/N	Level of Inefficiency		Range of efficiency scores	Names of MDAs
3	Distinctively inefficient MDAs	09	0.61 < 0.69	
	Total	25		

Source: Author's Computation (2019)

Figure 4: Pattern of Average Efficiency Scores for (DMUS) on Personnel Costs
Utilisation under Education Sector with CCR Model



Source: Author's Computation (2019)

The Figure 4 shows the pattern of behaviour of the pool of average efficiency weight attached to the use of personnel cost among DMUs in Education Sector. DMUs capacities in the efficient usage of personnel cost in Education Sector ranges between 60% and 75%. Average efficiencies are steady across the DMUs except in the case of UNIABUJA which shows a spike to the peak in the overall class of scores.

Figure 5 showed the average efficiency scores ranking in on personnel cost usage among the 25 sampled DMUs in the education sector. DMUs (UNIABUJA) had the highest average efficiency score in the overall class of scores with 75% while YCT recorded the lowest average performance of 60%. The average efficiency score performance of other DMUs were stated in between the high and low extreme average efficiency scores performance. The average efficiency performance of the DMUs on personnel cost usage was remarkable.

Figure 5: Ranking of Average Efficiency Scores on Personnel Costs Utilisation for DMUS in Education Sector using CCR Model

DMU	Efficiency Scores	Efficiency Ranking
UNIABUJA	0.75	1 st
FLUB	0.74	$2^{\rm nd}$
WAEC	0.74	$2^{\rm nd}$
FCEAK	0.71	$4^{\rm th}$
FCEDNDO	0.71	$4^{ m th}$
FPL	0.7	$6^{ m th}$
FCEAB	0.7	$6^{ m th}$
NLN	0.7	$6^{ m th}$
FCEOYO	0.7	$6^{ m th}$
FEDPOLYADO	0.7	$6^{ m th}$
FEDPOLYOKO	0.7	$6^{ m th}$
FEDPOLYEDE	0.7	$6^{ m th}$
FCEOKENE	0.69	13 th
UI	0.69	13 th
UNILAG	0.69	13 th
FEDPOLYOFFA	0.69	13 th
UNIAB	0.68	$17^{ m th}$
FUTA	0.68	17^{th}
JAMB	0.68	17^{th}
NOUN	0.68	17^{th}
OAU	0.68	$17^{ m th}$
UNIBEN	0.68	$17^{ m th}$
UNILORIN	0.62	$23^{\rm rd}$
FEDPOLYAUCHI	0.61	24 th
YCT	0.6	25 th

Source: Author's Computation (2019)

Figure 6 shows the summary of analysis of result for the efficiency scores in personnel costs for the (25) twenty-five sampled DMUs in Education Sector using BCC. With the average mean 0.845 in 2008, only (3) three DMUs are technically efficient having the efficiency scores of 100% or 1. There DMUs are FLVB, WAEC and UI. Also, (3) three other DMUs operated close to the full efficiency frontiers but were technically inefficient. This therefore is suggestive of the need for an upgrade to full efficiency. This improvement can be achieved by altering the ratio of either input resources or output resources to attain full efficiency. The efficiency scores and the DMUs are 0.999, 0.957 and 0.933 for MDAs UNIABUJA, OAU and UNILORIN respectively. In 2009, only WAEC, NLN and UI are technically efficient in the personnel cost utilisation with efficiency scores of 100%. In other words, they were able to minimise input at a given level of outputs without idle fund. In between these (3) three efficient MDAs are deviations of inefficient MDAs who were not able to fully use up the total input costs (personnel costs allocations) at their disposal in 2009. Four DMUs – FLUB, UNIABUJA, OAU and UNILORIN belong to this category with efficient scores of 0.999, 0.999, 0.957 and 0.933. In 2010, there were only (3) three DMUs that were technically efficient and 3 DMUs were recorded technically efficient in years 2011, 2012, 2013 2014, 2015 and 2016 respectively while other DMUs are technically inefficient.

Figure 6: Efficiency Scores in Personnel Costs for the 25 Sampled MDAs in Education Sector (2008-2016) using BCC

S/N	DMU	2008	2009	2010	2011	2012	2013	2014	2015	2016	AVERAGE
1	UNIAB	0.758	0.709	0.975	0.913	0.613	0.318	0.632	0.894	0.357	0.685
2	FLVB	1	0.999	0.99	0.908	0.605	0.319	0.633	0.883	0.35	0.350
3	FUTA	0.71	0.71	0.969	0.905	0.621	0.316	0.629	0.877	0.351	0.676
4	WAEC	1	1	0.964	0.913	0.608	0.297	0.629	0.883	0.35	0.738
5	JAMB	0.851	0.85	0.805	0.865	0.629	0.297	0.643	0.825	0.337	0.678
6	UNIABUJA	0.999	0.998	0.988	0.909	0.613	0.319	0.637	0.894	0.4	0.751
7	NOUN	0.849	0.845	0.794	0.801	0.693	0.299	0.63	0.886	0.352	0.683
8	FPI	0.851	0.85	0.943	0.924	0.615	0.297	0.629	0.885	0.351	0.687
9	YCT	0.499	0.364	0.957	0.897	0.633	0.297	0.63	0.886	0.352	0.613
10	FCEAB	0.851	0.85	0.956	0.895	0.624	0.297	0.576	0.899	0.39	0.704
11	FCEAR	0.85	0.849	0.944	0.9	0.623	0.295	0.63	0.877	0.396	0.707
12	NEN	0.801	1	0.778	0.78	0.768	0.201	0.71	0.877	0.394	0.701
13	FCEOKENE	0.851	0.85	0.93	0.883	0.636	0.298	0.629	0.877	0.22	0.686
14	FCEONDO	0.851	0.85	0.955	0.895	0.625	0.299	0.63	0.877	0.415	0.711
15	FCEOYO	0.851	0.85	0.942	0.891	0.626	0.297	0.629	0.821	0.405	0.701
16	UI	1	0.721	0.987	0.917	0.608	0.318	0.629	0.932	0.299	0.712
17	UNILAG	0.875	0.707	0.985	0.915	0.607	0.32	0.641	0.904	0.385	0.704
18	OAU	0.957	0.723	0.989	0.915	0.608	0.312	0.629	0.884	0.351	0.708
19	UNIBEN	0.799	0.707	0.967	0.921	0.602	0.321	0.633	0.889	0.354	0.688
20	UNILORIN	0.933	0.853	0.976	0.906	0.609	0.27	0.63	0.074	0.424	0.631
21	FEDPOLYADO	0.85	0.85	0.926	0.884	0.632	0.299	0.629	0.878	0.376	0.703
22	FEDPOLYOKO	0.852	0.851	0.964	0.903	0.621	0.297	0.629	0.854	0.342	0.701
23	FEDPOLYOFA	0.851	0.85	0.948	0.787	0.631	0.313	0.629	0.879	0.318	0.690
24	FEDPOLYEDE	0.851	0.85	0.956	0.891	0.599	0.298	0.63	0.916	0.352	0.705
25	FEDPOLYAUCHI	0.855	0.852	0.973	0.721	0.623	0.298	0.629	0.877	0.35	0.665
	MEAN	0.854	0.822	0.943	0.882	0.627	0.3	0.633	0.85	0.359	0.697

Source: Author's Compilation (2019)

From Figure 7, it is clearly shown that in 2008, out of total number of 25 twenty five MDAs investigated on personnel cost utilisation using BCC model, only 3 three MDAs achieved full efficiency which translated to 12% of the total number. The remain (22) twenty MDAs which represent about 88% of the total number were technically inefficient in personnel cost utilisation. The same level of operation repeated itself in 2009, 2010 and 2016, year 2011 differs with only one (1) MDA on the full efficiency list. This represents 4% of total number while 96% of the sampled number were technically inefficient. The same scenario was repeated in 2011, 2013 and 2014. Year 2015 witnessed the highest number of MDAs with full efficiency scores with (6) six MDAs which translate to 24% of the total number while 76% of the total were technically inefficient.

Figure 7: Efficiency Scores of DMUS in Personnel Cost Utilisation using BCC Model in Education Sector

S/N	Year	Name of MDA	CCR Scores
1.	2008	FLVB, WAEC, UI	1
2.	2009	WAEC, NLN, UI	1
3.	2010	UI, OAU, UNIBEN	1
4.	2011	UI	1
5.	2012	NLN, UI, FEDPOLYOKO	1
6.	2013	NLN	1
7.	2014	FCEOKENE	1
8.	2015	FLVB, JAMB, UNIABUJA	1
9.	2016	JAMB, FCEAK, FEDPOLYEDE	1

Source: Author's Computation (2019)

There are three (3) levels of technical inefficiency: The technically marginally inefficiency technically averagely inefficiency and technically distinctively inefficiency.

An MDA is inefficient if it fails to attain a full efficiency score during the evaluation period. That is, when there are slack or idle fund that cannot be used up as input resources to generated need optimal output.

The table below shows the different levels of inefficiency of an entity compared with the average efficiency scores.

Figure 8 showed the categorisation of MDAs under the education sector based on their level of inefficiency with the number of MDAs in each category and their average range of their efficiency scores.

The category of technically inefficient MDAs have their efficiency scores in the range of 0.89 <1. This category of MDAs can still achieve a level of full efficiency with minimum effort.

The averagely technically inefficient MDAs are the middle level performing MDAs who need a moderately increase in the level of input resources to achieve a full efficiency scale or a cut in output to attain a fully technically efficiency frontiers.

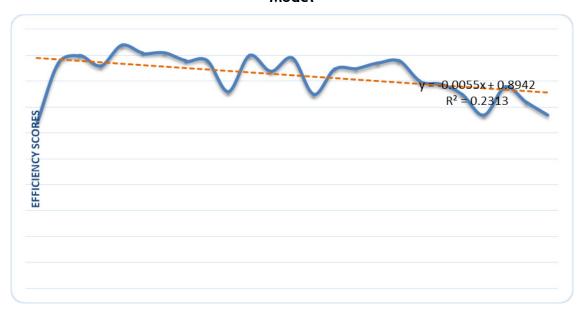
A distinctively technically inefficient MDAs lies between 0.72 < 0.82. This group of MDAs fell into category of MDAs who could not effectively utilised the allocated personnel cost over the years for absorbing the liabilities on personnel matters. In other words, the MDAs had a greater proportion of unused personnel costs at the end of each year. To attain full technical efficiency, this category of MDAs needed a drastic adjustment of personnel cost inputs – output. In summary therefore, out of total number of 25 sampled MDAs, (4) four of the number were technically marginally efficient which represented 16%, while (10) ten were averagely inefficient (40%) and distinctively inefficient MDAs were put at 12 which stood for 48% of the total.

Figure 8: Categorisation of Inefficient MDAS within the Education Sector using BCC Model

S/N	Types of Inefficiency	No of MDAs	Range of efficiency scores	Names of MDAs
1	Technically Marginally inefficiency MDAs	4	0.9 < 1	FLVB, UNIABUJA, UI, OAU
2.	Averagely technically inefficient MDAs	10	0.82 < 0.89	FUTA, WAEC, JAMB, FCEAR, NOUN
3.	Distinctively Technically inefficient	12	0.72 < 0.82	
	Total	25		

Source: Author's computation (2019)

Figure 9: Pattern of Average Efficiency Scores of Decision Making Units (DMUS) for Personnel Cost Utilisation for 25 Sampled DMUS under Education Sector using BCC Model



Source: Author's Computation (2019)

The Figure 9 shows the pattern of behavior of pool of average efficiency weight attached to the use of personnel cost among the DMUs in Education sector. DMUs capacities ranges between 70% and 91% in the efficient usage of personnel cost in the sector. There is a steady efficiency score performance across the DMUs except in the case of FLVB which shows a spike to the peak in the overall class of scores.

Figure 10 showed the average efficiency scores in descending order on personnel cost usage among the 25 sampled DMUs in the education sector. DMUs (FLVB and OAU) have the highest

average efficiency scores in the overall class of scores with 91% while UNIAB recorded the lowest average performance of 73%. The average efficiency score performance of other DMUs were stated in between the high and low extreme average efficiency scores performance. The average efficiency performance of the DMUs on personnel cost usage is remarkable.

Figure 10: Ranking of Average Efficiency Scores for the 25 DMUAS in Education Sector on Personnel Costs using BCC Model

DM U	Efficiency Scores	Efficiency Ranking
FLVB	0.91	1 st
OAU	0.91	1^{st}
UNIABUJA	0.9	3^{rd}
UI	0.9	3^{rd}
WAEC	0.89	5 th
UNKAG	0.88	$6^{ m th}$
JAMB	0.87	$7^{ m th}$
FCEAK	0.87	$7^{ m th}$
FCEOKENE	0.87	$7^{ m th}$
FPI	0.84	$10^{ m th}$
FCEONO	0.84	$10^{ m th}$
FUTA	0.83	12 th
NOUN	0.83	12 th
NLN	0.83	12 th
FEDPOLYEDE	0.82	15 th
UNIBEN	0.81	16^{th}
UNKORIN	0.80	$17^{ m th}$
FEDPOLYOFFA	0.79	18 th
FEDPOLYACH	0.78	19 th
FEDPOLYADO	0.77	$20^{ m th}$
YCT	0.76	$21^{\rm st}$
FCEDNDO	0.75	$22^{\rm nd}$
FEDPOLYAKO	0.74	$23^{\rm rd}$
FCEAB	0.74	23^{rd}
UNIAB	0.73	$25^{ m th}$

Source: Author's Computation (2019)

Figure 10 showed the efficiency score generated from the decision making units classified in terms of education and health sectors using overhead cost in 2010. It is observed that the mean efficiency level as depicted by the average efficiency score was 0.895 for CCR and 0.904 for BCC. In comparison with the overall average, 80% of the ministries in the health sector operated above the sectoral average of 0.899 and the remaining 20% were inefficient. Similarly, in comparison with the overall average, only 72% of the ministries in the education sector operated above the sectoral average of 0.945 (BCC) while the remaining 28% were inefficient. The highest mean obtained in the Southwest region was 100% efficiency. In the North central zone, the highest mean score was 0.317 while the highest mean obtained in Eastern zone was 0.312. By implication, Southwestern region had the highest mean score among the three regions captured in the study in the health sector. In contrast, for education sector, 0.974 was the highest attainable

efficiency score among the DMUs in the Southwestern part of the country. Also, the North central region was 100% efficient. Lastly, in the Eastern zone, 0.942 was the highest efficiency score attainable. By implication, North central region was performing better than the other regions in consideration.

5.0 Conclusion and Policy Recommendation

The objective of this paper is to evaluate the efficiency of the public sector entities under the education sector in the utilization of personnel cost releases to the various Decision Making Units (DMUs) by the central authority in Nigeria. In order to achieve full efficiency frontiers in the personnel cost allocations in the public sector entities, the following recommendations become imperative:

The budget office should set up the monitoring team to regulate the activities of low performing DMUs in terms of the personnel costs releases vis-à-vis size of the institution's payroll.

- The DMUs need close monitoring and supervision in order to enhance their efficiency scores and boast their efficiency frontiers to improve the overall efficiency position in resource utilization.
- The DMUs should either reduce their personnel cost inputs or increasing the size of the payroll to achieve full efficiency.
- The DMUs with idle personnel cost balances or unspent balances in their personnel cost accounts should be made to remit the balance to the treasury.
- Personnel cost allocation should be based strictly on the size of the institution's audited payroll.
- Both personnel audit and personnel cost audit should be regularly carried out among the MDAs to stem the tide of personnel cost leakages in the public sector entities.
- There should be a direct linkage between personnel cost releases and the needs assessment on the category of personnel staff in the MDAs.

In conclusion therefore, it is only a continuous assessment and evaluation of the personnel cost releases together with the size of the institution's payrolls on a regular basis that can guarantee a full efficiency score of the personnel cost utilization among the Decision Making Units in Nigeria.

References

- Abdulkareem, A Y & Oyenira, S (2011) 'Managing the Performance of Nigerian Universities for Suitable Development using Data Envelopment Analysis'. International Journal of Academic Research in Business and social Science, Vol. 15, No. 1. pp. 54-67.
- Basso, A & Funari, S (2001) 'Theory and methodology: A Data Envelopment Analysis approach to measure the mutual fraud performance'. European Journal of operation Research, Vol. 135, No. 3. pp. 477-492.
- Beasely, J (1997) 'Determining teaching and research efficiencies', Journal of Operational Research Society, Vol. 11, No. 9. pp. 441-452.

- Chandra, P, Cooper, W W; Shanling, Li, & Rahman, A (1998) 'Using DEA to evaluate 29 canadian textile companies considering returns to scale'. International Journal of Production Economics, Vo. 54, No. 2. pp. 129-141.
- Coelli, T (1992) Assessing the performance of Australian using data envelopment analysis. Internal Report, Centre for Efficiency and Productivity Analysis, University of New England.
- Erkut, D and Hatice, D (2007) 'Measuring the performance of manufacturing firms with super slacks based model of data envelopment analysis: An application of 500 major industrial enterprises in Turkey'. European Journal of operational Research, Vol. 182, No. 3. pp. 1412-1432
- Freeman, L & Sinuany-Stern (1984) 'Combining ranking scales and selecting variables in the DEA context; The case of industrial branches'. Computers and operation Research, Vol. 25, NO. 9. pp. 781-791.
- Friedman, L & Sinuany-Stern, Z (1999) 'Combining ranking scales and selecting variables in the DEA context; The case of industrial branches'. Computers and Operation Research, Vol. 25, No. 9, pp. 781-791.
- Farrell, M J (1957) 'The Measurement of Production Efficiency'. Journal of Royal Statistics Society, Vol. 120. pp. 253 281.
- Galagedera, U A & Silvapule, P (2002) 'Australian mutual fund performance appraisal using Data Envelopment Analysis'. Manageria Fiance, Vol. 28, No. 9. pp. 60-73.
- Inua, O I & Maduabum, C (2014) 'Performance Efficiency Measurement in the Nigerian Public Sector: The Federal Universities, Dilemma'. Mediterranean Journal of Social Sciences, Vol. 5, No. 20. pp. 838 846.
- Johnes, G and Johnes, J (1993) 'Measuring the research performance of UK economics departments', application of data envelopment analysis oxford Economic papers, Vol. 45, No. 2. pp. 332-345.
- Kara, E (2012) 'Financial Analysis in Public Sector Accounting. An Example of EU, Greece and Turkey', European Journal of Science Researches, Vol. 6, No. 1. pp. 81-89.
- Kempkes, G and Pohl C (2018) The efficiency of German Universities some evidence from non-parametric methods Applied Economics- on-line First.
- Khajavi, S, Salimifared, A, Rabieh, M (2005) 'The Function of Data Envelopment Analysis (DEA) in Determining a Portfolio of most Efficient Firms Accepted in Tehran Stock Exchanges'. Journal of Humanities and Sociologies, Shiraz University, Vol. 22, No. 2. pp. 75 90.
- Maddan, G; Savage, S and Kemp, S (1997) 'Measuring public sector efficiency; A study of the Economics Department at Australian Universities', Education Economics, Vol. 5, No. 2. pp. 153-168.
- Ponnu, C H and Ramthandin, S (2008) 'Governance and performance; Publicly listed companies in analysis', Journal of Business system, Governance and Ethics, Vol. 3, No. 1. pp. 35-53.

- Tehrani, R; Mehragan M E and Golkani, M R (2012) 'Armodel for Evaluating Financial Performance of companies by Data envelopment Analysis', International Businessmen Research, Vol. 5, No. 8. pp. 8-16.
- Saranga, H & Phani, B V (2004) 'The Indian pharmaceutical industry an overview of internal efficiencies using data envelopment analysis', Indian institute of Management calcutt, Vol. 3, No. 2. pp. 485-495.
- Wu, C C, Kao D C and Cheng; H H (2006) 'Examining retailing performance via financial index'. Asia pacific management Review, Vol. 11, No. 2. pp. 83-92.
- Wu, H L (2005) 'A DEA Approach to understanding the performance Taiwan's steel industries 1970-1996'. Asia Pacific management Review, Vol. 11, No. 2. pp. 83-92.
- Thore, Sr, Kozmetsky, G and Phillips, F (1994) 'DEA of financial statements data: the U.S. computer industry'. The Journal of productivity Analysis, Vol. 5, No. 2. pp. 229-248.

ABOUT IJGFM

The *International Journal on Governmental Financial Management* (IJGFM) is a peer-reviewed and open access journal and aims to provide a forum for practitioners and academics to discuss the many disciplines involved with governmental financial management. These include accounting, auditing, budgeting, performance measurement, debt management, information technology, tax management and treasury management.

We publish articles and comments which will:

- encourage collaboration among professionals, academics and others concerned about public financial management;
- contribute to the advancement of government financial management principles and standards, especially through describing existing good practice;
- identify problems or weaknesses through the critique of currently dominant views on public sector financial management reforms; and
- assist public sector financial managers in identifying their own solutions to common challenges.

We would particularly welcome contributions from individuals or teams working in the developing countries. We invite potential authors to review past issues of the journal at: http://www.icgfm.org/publications/journal/

EDITORIAL TEAM

Editor

Prof. Dr. Hassan Ouda, German University in Cairo, Egypt

Editorial Board

- Femi Aborisade, The Polytechnic, Ibadan, Nigeria.
- Pawan Adhikari, University of Essex, UK (from Nepal).
- Hugh Coombs, University of Glamorgan Business School, Wales, UK.
- Jérôme Dendura, Consultant in Public Financial Management (from France).
- Jerry Gutu, Consultant in Public Financial Management, former Accountant General of Zimbabwe (US based).
- Jesse Hughes, Old Dominion University (retired), Virginia, USA.
- Pratap Jena, National Institute of Public Finance and Policy, India.
- Harika Masud, Consultant in Public Financial Management (US Based).
- Fred Mear, de Montfort University, UK.
- Mohamed Moindze, Consultant in Public Financial Management, National School of Administration, Madagascar.
- Patrizio Monfardini, University of Siena, Italy.

- Norvald Monsen, Norwegian School of Economics and Business Administration, Norway.
- Ayodeji Ogunyemi, National Audit Office, UK (from Nigeria).
- Eddy Omolehinwa, University of Lagos, Nigeria.
- Joseph Onumah, University of Ghana.
- Michael Parry, Independent Public Financial Management Consultant, UK.
- Zakiah Saleh, University of Malaya, Kuala Lumpur, Malaysia.
- Carlos Santiso, Inter-American Development Bank, US.
- Stewart Smyth, Queen's University Belfast, UK.
- Sylvia Temu, University of Dar es Salaam, Tanzania.
- Daniel Tommasi, Independent Public Financial Management Consultant, France.
- Mathew Tsamenyi, University of Birmingham, UK (from Ghana).
- Nidhi Walia, Thapar University, India.
- Zbyslaw (Peter) Dobrowolski Editor, Professor, Jagiellonian University, Institute of Public Affairs, Poland.
- Owen Zhang, China National Audit Office.

AUTHORS' GUIDELINES

Manuscripts should be sent as an email attachment to the editor, Hassan Ouda - icgfm.ijeditor@icgfm.org and be copied to icgfm@icgfm.org

Structure of the Manuscripts/Format and Style

- The title should be short, clear and informative, but does not exceed 15 words.
- Author's names and institutions. The author's names should be accompanied by the author's institutions and an email account, without any academic title. It should be placed below the title. For a joint paper, one of the authors should be notified as the corresponding author.
- Count of pages should not exceed 20 single spaced pages or 10,000 words.
- An abstract not exceeding 150 words it should summarize the purpose, methodology, and major conclusions of the article. The key words should be of 3 to 5 words.
- Authors should write in a non-sexist and non-discriminatory style, using, for example, "her/him"; or "s/he"
- limited use of abbreviations to improve ease of reading, appropriate references (see below) to the literature on the subject to support facts, assertions and opinions; all quotations should be fully referenced;
- Footnotes, identified in the text by a numeral that is superscripted, should not include literature citations, and should be listed at the end of the paper, before the bibliography.

Referencing the text

References in the text to books, articles etc. should include the authors' names, the year of publication, and the specific page numbers if direct quotations are provided (e.g., Mickey & Donald, 1968, p.24). For more than two authors, the citation should be abbreviated as follows: (Kramdon and others, 1988, p.1). Multiple citations of the same author(s) in the same year should be distinguished in the text (and in the bibliography) by a, b, c, etc. following the year of publication. Latin terms, for example, et al, ibid or op cit should be avoided.

Bibliography

A bibliography should be included at the end of the text containing details of all books, articles papers, etc. which have been referenced in the text. The bibliography should only include references cited in the text. These should be arranged in alphabetical order according to the surname of the first author. The following details should be included: author and initials, full title and subtitle, place of publication, publisher, date, and page references (for direct quotations). References to journal articles must include the volume and number of the journal.

Where possible, details should be provided of the web address for material which is available on the Internet. In this case the date the material was read should be provided.

The layout should adhere to the following convention:

- Articles: Schick, A (1998) 'Why Most Developing Countries Should Not Try New Zealand Reforms', The World Bank Research Observer, Vol.13, No.1, February. pp.123-31.
- Books: Guthrie, J. Humphrey, C. Jones, L R. & Olson, O., (2005), International Public Financial Management Reform, Greenwich, Information Age Publishing citations from edited books: Flynn, N (2002) 'Explaining New Public Management: The Importance of Context', in K McLaughlin, S Osborne and E Ferlie (eds.) New Public Management: current trends and future prospects, London, Routledge.
- Translated books Adorno, T. W. Negative Dialektic (Frankfurt: Suhrkamp, 1966). Negative Dialectics, E. B. Ashton (trans) (1973) New York, Seabury Press.
- Reference to a report. World Commission on Environment and Development (1987) Our Common Future ('The Brundtland Report') Oxford, Oxford University Press references to material on the Internet.
- Dorotinsky, Bill (2008) Public Financial Management Reform: Trends and Lessons, ICGFM DC Forum, June.
- http://icgfm.blogspot.com (6 September 2008).

Charts, Diagrams, Figures and Tables

These should all be called figures, numbered consecutively in Arabic numerals, with a brief title in capitals, labeled, axes, etc. The text should indicate where the figure is to appear.

Copyright

Material published in the Journal may be reproduced without the consent of the editor or the consortium and reproduction, translation and distribution is encouraged.

PUBLICATION ETHICS AND PUBLICATION MALPRACTICE STATEMENT

The role of the editor is to evaluate the suitability of submitted manuscripts for the International Journal on Governmental Financial Management. This evaluation includes: (a) the quality of the manuscript, (b) whether it meets the Aims and Scope of the journal, and (c) the originality of the work. The editor will not disclose information about a submitted manuscript to anyone other than the author(s).

Below is the expected ethical behavior for our potential authors and the peer reviewers based on Elsevier publishing ethics and COPE's guidelines.

Ethical Guidelines for Peer Reviewers

- Reviewers are expected to be objective; avoiding any personal criticism of the authors.
- Reviewers are expected to treat the work of the authors fairly as if it is their own.
- Reviewers should to avoid any personal biasness related to the nationality, religious or political beliefs or gender.
- Reviewers are asked to ensure declaring all potential competing, or conflicting, interests.
- Reviewers should express their views clearly with supporting arguments.
- Reviewers are expected to report any potential ethical issues in the paper with respect to research and publication ethics do let the editor.
- Reviewers must not share the review or any information about the paper.
- Any communication with the authors should be through the editor.
- Reviewers are expected to respond to the editor within the agreed-upon time frame.

Ethical Guidelines for the Authors

- Authors must warrant that the work does not infringe upon any existing copyright and does not contain material of a libelous or scandalous nature.
- By submission of a paper to the Journal, the author indemnifies the publisher and editors against any breach of such warranty or copyright restrictions.
- Authors of reports of original research should present an accurate account of the work performed as well as an objective discussion of its significance.

- Authors may be asked to provide the research data supporting their paper for editorial review and/or to comply with the open data requirements of the journal.
- The authors should ensure that they have written entirely original works, and if the authors have used the work and/or words of others that this has been appropriately cited or quoted and permission has been obtained where necessary.
- Proper acknowledgment of the work of others must always be given. Authors should cite
 publications that have influenced the reported work and that give the work appropriate
 context within the larger scholarly record.
- Plagiarism takes many forms, from 'passing off' another's paper as the author's own paper, to copying or paraphrasing substantial parts of another's paper (without attribution), to claiming results from research conducted by others. Plagiarism in all its forms constitutes unethical behaviour and is unacceptable.
- An author should not in general publish manuscripts describing essentially the same research in more than one journal of primary publication. Submitting the same manuscript to more than one journal concurrently constitutes unethical behaviour and is unacceptable.
- Information obtained in the course of confidential services, such as refereeing manuscripts or grant applications, must not be used without the explicit written permission of the author of the work involved in these services.
- Authorship should be limited to those who have made a significant contribution to the conception, design, execution, or interpretation of the reported study. All those who have made substantial contributions should be listed as co-authors.
- When an author discovers a significant error or inaccuracy in their own published work, it is the author's obligation to promptly notify the journal editor or publisher and cooperate with the editor to retract or correct the paper if deemed necessary by the editor. If the editor or the publisher learn from a third party that a published work contains an error, it is the obligation of the author to cooperate with the editor, including providing evidence to the editor where requested.