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Research paper

An analysis of government financial reporting transparency in developing economies: the extent of compliance with cash-based IPSAS disclosures

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Abstract

This study aims to assess the degree of government compliance with cash-based IPSAS disclosure requirements in developing economies, and to highlight the areas of non-compliance relating to this standard. Based on a self-constructed checklist consisting of 68 disclosure items for a sample of 248 entity-year-observations relating to 62 central government entities from 10 DCs, the study findings reveal significant diversities in compliance levels with cash-based IPSAS disclosure requirements between the selected countries, varying between 33.8 % and 80.8 %, with an overall mean compliance index of 55.1% over the 2020-2023 period. Moreover, the research results demonstrate that, despite the significant improvement in the cash-based IPSAS disclosure level over time, full compliance with this standard has not been achieved by government entities. Thus, a number of non-compliance areas are identified in the present research. This paper contributes to the public sector accounting literature by providing new insights into the degree of government financial transparency in the context of developing countries. This research is among the first to focus exclusively on the analysis of compliance level with cash-based IPSAS and to identify the main areas of non-compliance with this standard.

Keywords: *Cash-Based IPSAS; Developing Economies; Disclosure Index; New Public Management; Non-Compliance Areas.*

1. Introduction

The emergence of the New Public Management (NPM) movement since the late 1970s has been a key event in the public sector history, where a greater emphasis is placed on budgetary rationality and government performance (Dunleavy and Hood, 1994; Lapsley, 1999). As an integral part of NPM, New Public Financial Management (NPFM) reforms play a crucial role in revolutionizing public financial information systems through the shift from cash to accrual accounting and the development of international public sector accounting standards (IPSAS) (Christensen, 2010; Guthrie et al., 1999). These new management practices have been introduced in advanced economies and then gradually in developing economies with the aim of addressing the opacity of public fund management, improving financial transparency and government accountability, and promoting a performance-based public sector (Christiaens et al., 2015; Sellami and Gafsi, 2018). Recent years have seen a growing movement towards the use of accrual-based IPSAS. Aware that several countries still apply the traditional cash accounting model in the preparation of financial statements of their public sector entities (PSEs), the IFAC and its committee, the IPSAS Board, have published, since 2003, the cash-basis IPSAS in order not only to improve the quality of government financial reporting, but also to facilitate the future transition process to accrual-based IPSAS (IPSASB, 2017). In the context of developing countries (DCs), the implementation of NPM innovations and the adoption of IPSAS were largely boosted by the intergovernmental organizations such as the World Bank, the Organization for Economic Co-operation and Development (OECD), the International Monetary Fund (IMF), and the Asian Development Bank (Christiaens et al., 2015). According to these international institutions, the reform of government accounting practices is becoming increasingly demanding in order to strengthen the country's institutional capacity and achieve its development goals (Chan, 2006).
Proponents argue that the weakness of accounting systems and the lack of transparency are the main drivers behind the government's inability to cover budgetary expenditures and discharge its financial accountability. In this regard, IPSAS are perceived as a useful tool for ensuring effective public financial management and a relevant benchmark for better assessing government actions (Chan, 2006; Mnif and Gafsi, 2024). However, a mere adoption of IPSAS does not allow governments to benefit from the expected advantages if public sector entities (PSEs) do not correctly apply these standards or do not prepare IPSAS-compliant financial statements (Benito et al., 2007; Mnif and Gafsi, 2020; Sellami and Gafsi, 2020). This paper aims to assess the degree of government compliance with cash-based IPSAS disclosure requirements, specifically in the context of DCs, while highlighting the main areas of non-compliance with this standard during the period 2020-2023. Indeed, most of the existing studies focus on the assessment of compliance level with local standards (Ingram,1984; Giroux, 1989; Lim and McKinnon, 1993; Christiaens, 1999; Ryan et al., 2002) or international standards, with greater focus on accrual-based IPSAS (Pina and Torres, 2003; Pérez and Lopez-Hernandez, 2009; Abushamsieh et al., 2014; Benito et al., 2007; Mnif and Gafsi,

2020; Sellami and Gafsi, 2020; Mnif and Gafsi, 2024). However, still little empirical evidence on the compliance level with cash-based IPSAS disclosure requirements has been undertaken.
Another motivation for this research is the consideration of the complexity and the socio-economic importance of the public sector, as well as the significant impact of the NPM reforms on the development of government accounting. In addition, the awareness of the challenges and obstacles faced by several developing countries in implementing IPSAS constitutes another motivation for this paper.
Based on a self-constructed checklist consisting of 68 disclosure items for a sample of 248 entity-year-observations relating to 62 central government entities from 10 DCS, the study findings reveal significant diversities in compliance levels with cash-based IPSAS disclosure requirements between the selected DCs, varying between 33.8 % and 80.8 %, with an overall mean compliance index of 55.1% over the 2020-2023 period. Moreover, the research results demonstrate that, despite the significant improvement in the cash-based IPSAS disclosure level over time, full compliance with this standard has not been achieved by the sampled PESs. Thus, a number of non-compliance information areas are identified in the present research.
The results of the current research could be interesting and useful as they provide practitioners, academics and researchers with an in-depth analysis of the assessment of the level of government compliance with the cash-based IPSAS disclosure requirements in the context of DCs, and the main problems encountered by PSEs in these economies in implementing this standard. The study results could also encourage the IFAC and IPSASB in their ongoing efforts in the field of public sector international accounting harmonization by focusing on the areas of non-compliance with such specific IPSAS standard. Furthermore, our results could stimulate the supporting role of international financial institutions (WB, IMF, etc.) in disseminating IPSAS in developing economies. By assessing the degree of compliance with cash-based IPSAS, our results could also help DCs' policymakers in their accounting strategies to address the areas of non-compliance with this standard and further strengthen financial transparency and government accountability in order to facilitate the obtaining of foreign credits and financial assistance from transnational donors/lending institutions.
This paper is organized as follows: Section 2 provides an overview of prior literature pertaining to the extent of compliance with government accounting standards. Next, the study methodology is described in Section 3. Then, we report, in Section 4, the research findings relating to the compliance level with cash-based IPSAS and the main non-compliance standard areas. Finally, the paper is concluded with a summary and discussion of policy implications in Section 5.

2. Literature review on compliance with government accounting standards

Prior research on international accounting harmonization provides evidence that the adoption (even if mandatory) of international accounting standards does not necessarily lead to the fact that these norms will be applied in the same way by all the entities, which in turn leads to significant diversities in the level of accounting disclosure whether between countries or even between entities belonging to the same country. The previous accounting literature provides evidence that the use of international accounting standards, even in a mandatory setting, does not necessarily lead to the fact that these norms will be applied in the same way by all the private or public sector entities, which in turn leads to significant diversities in the extent of disclosure requirements, whether between countries or even between entities belonging to the same country (Pina and Torres, 2003; Glaum et al., 2013; Juhmani, 2017; Mazzi et al., 2018).
In the field of public sector accounting, empirical studies on the assessment of compliance level with national accounting standards have begun in the 1880, specifically in the context of developed economies (Ingram, 1984; Giroux, 1989; Lim and McKinnon, 1993; Christiaens, 1999; Ryan et al., 2002; Bolıvar et al., 2013; Tejedo-Romero and Araujo, 2018). More recently, a number of studies have been conducted to analyse the degree of compliance with IPSAS disclosures, with more focus on the accrual-based standards' requirements. Most of these searches have been carried out in the context of developing countries (Pérez and Lopez-Hernandez, 2009, four MERCOSUR countries; Abushamsieh et al., 2014, six Middle East Arab countries; Sukmadilaga et al., 2015, two ASEAN countries; Sellami and Gafsi, 2020, eight African countries; Mnif and Gafsi, 2024, in 13 DCs). The main previous empirical studies on the extent of government accounting disclosures are reported in Table 1.

Table 1: Previous Empirical Studies on the Extent of Government Accounting Disclosure Requirements

Author(s)	Study sample	Year/Period	Accounting standards	Research instrument	Main findings
Ingram (1984)	49 states (USA)	1980	US GAAP	Accounting PracticeIndex	- There are significant diversities in the extent of compliance with national GAAP requirements amongst States. - Most American states do not provide complete information on public liabilities and assets of the government.
Giroux (1989)	97 US cities	1983	US GAAP	Accounting Disclosure index	- There are significant differences in the amount of government accounting standards' disclosures across US cities and amongst disclosure items. - The overall mean scores relating to the pension and employee benefits and statistical section disclosures are higher than the overall mean index of operating budget disclosures.
Lim & McKinnon (1993)	50 statutory authorities from the Australian State of New South Wales (NSW)	1984	National GAAP	Self-constructed disclosure index, including 39 items	Relatively significant disparities in the extent of voluntary accounting disclosure are revealed between NSW statutory authorities and amongst non-financial and financial disclosure items.
Christiaens (1999)	100 Flemish municipalities	1995	National GAAP	Compliance Index	Compliance levels range from 36.1% to 83.4%, with a mean score of 62% and a standard deviation of 10.2%.
Ryan et al. (2002)	36 Queensland localgovernment councils	1997, 1998 & 1999	National GAAP	Local GovernmentAccountability (LGA) index	- The extent of local government accounting disclosure has improved over the three-year period. - Financial information items are completer and more precise than non-financial ones. Low government disclosure levels mainly concern performance aspects and the areas of corporate governance, executive and staff remuneration, as well as occupational health and safety.
Pina & Torres (2003)	16 member countries of the OECD and the European Community	2000-2001	IPSAS 1	The Cook's (1989)index	- The overall average index of compliance with IPSAS 1 is 55%.

					- The information items relating to long-term debt record the highest level of disclosure, thus reaching full compliance for some entities
Da Costa-Carvalho et al. (2007)	175 municipalities in Portugal	2003	National GAAP	Compliance Index	Compliance levels are higher for budgetary information, with a mean disclosure index of 87%.
Pérez & Lopez-Hernandez (2009)	Governments from four MERCOSUR countries (Paraguay, Argentina, Uruguay and Brazil)	2006	IPSAS 1 and IPSAS 2	Compliance index, comprising 76 items relating to IPSAS 1 and IPSAS 2	Argentina registers the highest mean compliance level (53.9%), followed byParaguay (42%) and Brazil (21%).
Abushamsieh et al. (2014)	Government entities of six Middle East Arab countries (Egypt, Palestine, Bahrain, Jordan, Oman and Kuwait)	2007, 2008 & 2009	IPSAS 1& IPSAS 2	Self-constructed disclosure index	Despite the significant reforms introduced in Middle Eastern Arab countries, the extent of compliance with IPSASs 1 and 2 disclosure requirements is very low and is below 26%.
Sukmadilaga et al. (2015)	Government entities from two ASEAN countries: Malaysia and Indonesia	2012-2013	IPSAS	Self-constructed disclosure checklistbased on that of Ernst and Young (2012)	Malaysia and Indonesia both report very low levels of compliance with IPSAS requirements Indonesia provides more accurate and complete information than Malaysia, with a mean disclosure level of 17% (against a mean compliance index of 9% for Malaysia).
Tejedo-Romero & Araujo (2018)	100 Spanish local municipalities	2008, 2009, 2010, & 2012	National GAAP	Self-constructed index	Ther is a significant disparity in the extent of compliance with national standards' requirements with an overall mean disclosure score of 65.1%.
Sellami & Gafsi (2020)	60 sub-Saharan African government entities	2014-2017	Five Accrual-based IPSAS	Self-constructed disclosure index based on that of Ernst and Young (2012 & 2018)	Compliance levels differ from one African government to another and between entities in the same country, with an overall average disclosure score of 62.5%.
Mnif & Gafsi (2020)	100 entities from different countries across the globe	2015-2017	IPSASs, 1, 2, 3, 14 & 24	Self-constructed checklist of 116 items	The mean compliance level for the study' global sample is 65.7%.
Mnif & Gafsi (2024)	500 entity-year observations of 125 PSEs from 13 DCs	2015-2018	Accrual-based IPSAS	Self-constructed disclosure checklist based on that of Ernst and Young (2018)	High level of disparity in the extent of compliance with accrual-based IPSAS (1,2,3,14 & 24) amongst DCs' governments, with an overall mean score of 61%.

Whether conducted in developed or developing economies, the main results of all previous empirical studies, presented in Table 1, show significant differences in the degree of conformity to local and international accounting standards as well. In addition, they reveal that the amount of government accounting disclosures is generally lower in less developed countries

In terms of IPSAS implementation, most of the existing studies have focused on the assessment of compliance level with accrual-based IPSAS with greater emphasis on the disclosure requirements of IPSAS 1 "Presentation of financial statements" and IPSAS 2 "Cash flow statements" (Pérez and Lopez-Hernández, 2009; Abushamsieh et al., 2014; Sukmadilaga et al., 2015). More recently, other studies have expanded the scope of accrual-based IPSAS disclosure requirements to cover other standards, namely IPSAS 3 "Accounting policies, changes in accounting estimates and errors," IPSAS 14 "Events after the reporting date", and IPSAS 24 "Presentation of budget information in financial statements" (Mnif and Gafsi, 2020; Sellami and Gafsi, 2020; Mnif and Gafsi, 2024). However, very few researchers like Pina and Torres (2003) and Abushamsieh et al. (2014) have underlined and explained the areas of non-compliance for OEDC and Middle East Arab countries, respectively.

On the other hand, a number of studies have attempted to empirically analyse the determinants of compliance with (accrual-based) IPSAS disclosures by highlighting the influence of the economic, institutional and political-administrative environment on the level of government transparency, particularly in the context of DCs (Sellami and Gafsi, 2020; Mnif and Gafsi, 2024). The main results of these studies show that these economies have failed to achieve a high level of accounting disclosure due to their constraining environmental features such as the weak public management structure, vulnerable institutional capacity, inadequate regulatory framework, lack of appropriate and sufficient skills, etc. In the context of ASEAN countries, more specifically Indonesia and Malaysia, Sukmadilaga et al. (2015) emphasize the need to introduce substantial changes and improvements in public financial management in these governments in order to improve financial transparency in the public sector and increase IPSAS disclosure levels. In the same vein, Araya-Leandro et al. (2016) stated that Central American government entities have not yet reached an acceptable level of convergence with IPSAS despite considerable efforts made to modernize public sector accounting in this region.

All these previous studies provide a useful and comprehensive framework for accounting disclosure practices in the public sector. However, still little research on the extent of compliance with the cash-based IPSAS disclosure requirements has been undertaken despite the increasing acceptance of this standard, specifically in the context of DCs, and its considerable importance in improving the quality and transparency of government cash-based financial statements and alleviating the complexity of the future transition process to accrual-based IPSAS.

3. Research methodology

3.1. Sample and data sources

The study sample consists of a number of DCs' government entities belonging to the central government level and preparing their financial statements according to the cash-based IPSAS during the period 2020-2023.

The overall initial sample includes 3408 entity-year observations, from which 548 are rejected because they relate to Government Business Enterprises (GBE). Indeed, this type of business is not within the scope of the use of IPSAS and it includes trading and financial enterprises. Next, 492 observations are also excluded because they belong to PSEs that have not adopted the cash-based IPSAS. Then, we discard 460 entity-year observations for entities preparing financial statements according to the accrual-based IPSAS. Moreover, other entity-year-observations (444) are rejected because they relate to PSEs that do not publish English annual reports. In addition, 420 entity-year observations are removed from the sample because they relate to government entities whose annual reports do not refer to IPSAS appearing in the audit opinion or in the footnote relating to accounting policies. Next, we exclude from the study sample 404 entity-year-observations related to organizations operating at the local government level. Furthermore, 392 entity-year-observations for published reports that do not relate to the study period are also dropped. Thus, the final sample consists of 248 entity-year-observations relating to 62 central government entities whose 2020, 2021, 2022, and 2023 financial statements are obtained from the websites of various ministries, departments, and other central government bodies belonging to ten DCs from different regions across the globe. The sample selection process is presented in Table 2.

Table 2: Sample Selection Process

Initial sample		3408
(-) Government Business Enterprises (GBEs)		(548)
(-) Entities belonging to jurisdictions with no formal adoption of cash-based IPSAS		(492)
(-) Entities preparing their annual reports under accrual-based IPSAS		(460)
(-) Entities with no published English language annual reports		(444)
(-) Entities with no reference to IPSAS in the audit opinion or in the accounting policy		(420)
(-) Entities belonging to the local government level		(404)
(-) Entities whose annual reports do not relate to the study period		(392)
Final sample		248
Categorized by:		
Country (Geographic region) *	Fiji (East Asia and Pacific)	28
	Jamaica (Latin America and the Caribbean)	40
	Lesotho (Sub-Saharan Africa)	20
	Liberia (Sub-Saharan Africa)	32
	Maldives (South Asia)	12
	Pakistan (South Asia)	32
	Rwanda (Sub-Saharan Africa)	28
	Sierra Leone (Sub-Saharan Africa)	20
	Somalia (Sub-Saharan Africa)	16
	Zimbabwe (Sub-Saharan Africa)	20
Government activity**	General public services	14
	Defence	03
	Public order and safety	08
	Economic affairs	11
	Environmental protection	06
	Housing and community amenities	03
	Health	05
	Recreation, culture, & religion	04
	Education	07
	Social protection	01

* Sampled countries are classified by region according to the World Bank's (2024) country classification.
** Government activity divisions are defined according to the classification of the functions of government (COFOG, 1999) developed by the OECD, and published by the United Nations Statistical Division (European Commission, 2011).

3.2. Construction of the disclosure checklist

Consistent with the previous research (Glaum et al., 2013; Juhmani, 2017; Mazzi et al., 2018; Mnif and Gafsi, 2020; Sellami and Gafsi, 2020; Mnif and Gafsi, 2024), we develop a self-constructed checklist in accordance with the revised cash-based IPSAS text in order to assess the compliance level with the standard's accounting disclosure requirements. The study checklist is composed of 68 disclosure items which are classified into two main categories, namely Mandatory disclosure requirements (MDR) and Encouraged disclosure requirements (EDR), which together constitute the standard's structure, as specified by the IPSASB (2017).

The standard's first part (MDR) identifies the financial and budgetary disclosure requirements relating to the treatment of cash receipts, payments and cash balances made by PSEs other than GBEs, which must be clearly disclosed in the financial statements and explanatory notes. The second part relating to the encouraged disclosure requirements (EDR) highlights additional accounting policies and methods that an entity is encouraged to adopt and apply in order to improve the reliability and transparency of its financial statements.

As recommended by the IFAC/IPSASB, the study checklist contains the minimum requirements for the information to be provided in all government entities' cash-based financial statements and which should be sufficiently understandable, reliable and relevant in order to meet the information needs of the various stakeholders. The content reliability of the self-constructed checklist was checked by an independent IPSAS expert. Table 3 highlights the main disclosure items of the revised cash-based IPSAS, classified by category and subcategory in accordance with the standard's content and structure.

Table 3: Checklist Content

Standard part	Disclosure category	Nbr. of items
Part (1): Mandatory disclosure requirements (MDR)	1. Information to be disclosed in the statement of cash receipts and payments	03
	2. Reporting period	02
	3. Information about the entity	05
	4. Restrictions on cash balances and access to borrowings	03
	5. Comparative information	02
	6. Identification of financial statements	05
	7. Correction of errors	03
	8. Foreign currency	02
	9. Budget information	09
	10. Changes in accounting policies	03
	Total items per disclosure category	37

Part (2): Encouraged disclosure requirements (EDR)	1. Going concern	01
	2. Administrated transactions	02
	3. Disclosures of major classes of cash flows	02
	4. Additional information on assets, liabilities, revenues, expenses and comparison with budget	02
	5. Consolidated financial statements	04
	6. Acquisitions and disposals of controlled entities and other operating units	03
	7. Joint arrangements	02
	8. Financial reporting in Hyperinflationary economies	02
	9. Payments by third parties on behalf of the entity	02
	10. Recipients of external and other assistance	11
	Total items per disclosure category	31
Total disclosure items of Cash-based IPSAS		68

3.3. Calculation of the IPSAS compliance index

In line with the prior literature (Lopes and Rodrigues, 2007; Al-Shammari et al., 2008; Ben Saâda and Gafsi, 2019; Sellami and Gafsi, 2020; Mnif and Gafsi, 2024), The IPSAS disclosure index used in this study is unweighted, dichotomous, and adjusted for non-applicable items, where each disclosure item is coded as disclosed (1), not disclosed (0) or not applicable (NA). Adjusting the index for non-applicable items avoids penalizing an PSE for not disclosing one or more irrelevant elements. Indeed, and in order to minimize errors, the study checklist was carefully constructed by removing some elements whose applicability to a given PSE cannot be assessed and judged by an external review (Glaum et al., 2013).

In the current research, a global disclosure index (CASHIPSASDIjt) is computed for each government entity and for each country, separately. CASHIPSASDIjt is the ratio of the total number (T) of items (di) provided by the PSE (j) to the maximum number of applicable items (M) for that government entity during the year (t):

$$CASHIPSASDIjt = \frac{T\sum_{i=1}^{n} d\ i,jt}{M\sum_{i=1}^{m} di,jt}$$

4. Research findings

Cash-based IPSAS is IPSAS is a high-quality international standard that was developed and initially published by the IPSAS Board in 2003 in order to be applied by all PSEs, other than GBEs, which use cash-based accounting method in the preparation of their annual reports. The standard was subsequently revised in 2006, 2007 and 2017, respectively, and it is, in its latest revised version, applicable from 1 January 2019. Cash-based IPSAS aims to prescribe the manner in which general purpose financial statements should be prepared and presented on a cash basis in order to ensure transparency and comparability in the financial reporting of receipts, payments and cash balances of ESPs around the World.

In this section, we attempt to assess the degree of compliance with the mandatory and non-mandatory disclosure requirements of this standard by central government entities in developing economies, and also to identify the main areas of non-compliance during the period 2020-2023.

4.1. Descriptive statistics relating to the compliance level with cash-based IPSAS

The results of the descriptive statistics relating to the extent of compliance with cash-based IPSAS over the 2020-2023 period are reported in Table 4.

Table 4: Descriptive Statistics Relating to the Level of Compliance with Cash-Based IPSAS in Developing Countries During the Period 2020-2023

Country	N	Compliance level	Min	Max	Mean	Median	S-D
Fiji	28	MDR	0.6216	0.702	0.658	0.648	0.0277
		EDR	0.645	0.709	0.669	0.661	0.0272
		FDR	0.632	0.705	0.663	0.661	0.0205
Jamaica	40	MDR	0.486	0.648	0.577	0.567	0.0514
		EDR	0.612	0.645	0.628	0.612	0.0163
		FDR	0.544	0.647	0.600	0.602	0.0329
Lesotho	20	MDR	0.540	0.756	0.656	0.656	0.0679
		EDR	0.516	0.548	0.532	0.532	0.0165
		FDR	0.529	0.661	0.600	0.588	0.0430
Liberia	32	MDR	0.432	0.459	0.441	0.432	0.0130
		EDR	0.451	0.483	0.459	0.451	0.0141
		FDR	0.441	0.470	0.449	0.448	0.0097
Maldives	12	MDR	0.540	0.648	0.596	0.594	0.0372
		EDR	0.548	0.612	0.594	0.596	0.0215
		FDR	0.558	0.632	0.595	0.595	0.0254
Pakistan	32	MDR	0.378	0.702	0.510	0.513	0.0744
		EDR	0.354	0.573	0.466	0.419	0.0144
		FDR	0.397	0.573	0.466	0.463	0.0426
Rwanda	28	MDR	0.648	0.864	0.750	0.756	0.0547
		EDR	0.709	0.741	0.729	0.741	0.0160
		FDR	0.691	0.808	0.741	0.735	0.0325
Sierra Leone	20	MDR	0.432	0.621	0.540	0.554	0.0601
		EDR	0.451	0.516	0.483	0.483	0.0330
		FDR	0.441	0.573	0.514	0.522	0.0465
Somalia	16	MDR	0.324	0.351	0.337	0.337	0.0139

		EDR	0.354	0.387	0.358	0.354	0.0110
		FDR	0.338	0.367	0.347	0.345	0.0105
Zimbabwe	20	MDR	0.432	0.567	0.493	0.486	0.0495
		EDR	0.387	0.419	0.403	0.403	0.0165
		FDR	0.411	0.500	0.452	0.448	0.0326
All countries	248	MDR	0.324	0.864	0.562	0.567	0.1193
		EDR	0.354	0.741	0.538	0.516	0.1204
		FDR	0.338	0.808	0.551	0.558	0.1142

MDR: Mandatory disclosure requirements
EDR: Encouraged disclosure requirements
FDR: Full disclosure requirements

Table 4 presents for each sampled country the mean, standard deviation, median, minimum and maximum value relating to the level of compliance with mandatory disclosure requirements (MDR), encouraged disclosure requirements (EDR), and full disclosure requirements (FDR) of the cash-based IPSAS standard during the study period. The descriptive statistics findings show significant diversities in compliance levels with cash-based IPSAS full disclosure requirements between the sampled DCs, varying between 33.8 % and 80.8 % over the 2020-2023 period.

The overall mean compliance index relating to FDR for the study sample is 55.1%, with a standard deviation of 0.1142 and a median of 55.8%. The overall average compliance with MDR is 56.2%, with a standard deviation of 0.1193 and a median of 53.8%. As regards encouraged disclosure requirements (EDR), the overall mean compliance index is 53.8 %, with a standard deviation of 0.1204 and a median of 51.6%. However, none of the selected countries have achieved full compliance with cash-based IPSAS disclosure requirements, whether mandatory or non-mandatory, during the period 2020-2023.

According to previous studies, differences in the extent of compliance with government accounting standards disclosures may be related to the specific environmental characteristics of each country, such as the quality of public administration and the strength of public management systems (Sukmadilaga et al., 2015; Sellami and Gafsi, 2020; Mnif and Gafsi, 2020 & 2024), government political culture (Mnif and Gafsi, 2024), political competition (Bolıvar et al., 2013), the quality of accounting education (Sellami and Gafsi, 2020), government financial condition (Carpenter, 1991; Laswad et al., 2005; Carvalho et al., 2007; Bolívar et al., 2013), and the level of citizen wealth (Mnif and Gafsi, 2024). Disparities in compliance levels may also be associated with microeconomic factors such as the size of public sector entity (Carvalho et al., 2007; Garcia and Garcia-Garcia, 2010; Bolívar et al., 2013), accounting and auditing department expertise (Cheng,1992), state entity's audit budget and audit quality (Cheng,1992; Sellami and Gafsi, 2020; Mnif and Gafsi, 2024).

Furthermore, the results in Table 4 show that the Government of Rwanda records the highest levels of compliance (74.1% for FDR, 75% for MDR, and 72.9% for EDR), followed by the Government of Fiji whose average disclosure index reaches 66.3% for the standard' full requirements, 65.8% for MDR and 66.9% for EDR. Indeed, the Rwandan government has made, over the past decades, considerable efforts to reform the public management system, strengthen the country's institutional capacity, and improve government accounting practices. In 2006, the government has implemented a public financial management action plan aimed at strengthening several aspects of the existing system, more specifically in the areas of accounting, control, and auditing (IMF, 2011). In fact, the government sought to improve financial transparency and combat corrupt practices through the establishment of a quality accounting and auditing framework and the implementation of stronger financial controls and reporting procedures. Rwanda has also developed and implemented new rules on fiscal and financial decentralization and procurement reforms through the creation of autonomous and semi-autonomous tax agencies with the aim of enhancing public sector performance by streamlining tax collection and increasing government revenue (Samaratunge et al., 2008). Rwanda has made great strides in putting in place an adequate legal framework for budget management with the Organic Budget Law and accompanying financial regulations passed in 2006, thanks to which government budget is prepared through a transparent and appropriate set of procedures and in accordance with international accounting standards. Recently, a comprehensive and ambitious five-year new Public Financial Management Strategic Plan (PFM SSP 2024-2029) was developed and validated by the government and its development partners in June 2024 with the objective of accelerating and promoting the country's socio-economic development through the implementation of an effective fiscal policy and strengthened accountability measures. The key areas of intervention of this new plan include the improvement of transparency and accountability of public financial management, and the achievement of government economic and financial sustainability (MINECOFIN, 2024).

As for the Government of Fiji, it has taken relevant procedures and corrective measures aimed at redefining the public management system, ensuring budgetary rationalization and promoting effectiveness and efficiency in the public sector. These actions involve, for example, the development of the Fiji PFM Improvement Programme (PFMIP) 2016–2019 focusing mainly on a set of priorities including budget transparency, regulatory compliance, improving debt and government expenditure management and promoting the digitalization of public management practices (ADB, 2017).

However, the results of the descriptive statistics described in Table 4 reveal that the lowest average levels of FDR compliance belong to the Somali government (34.7%), followed by Liberia and Zimbabwe with overall average indices of 44.9 % and 45.2 %, respectively. Indeed, the introduction of NPM reforms, including IPSAS implementation, is still challenging and complex in several sub-Saharan African countries like Somalia, Zimbabwe, Uganda, Liberia and Burundi. Producing IPSAS-compliant government financial statements in these economies seems to be difficult to be achieved in the absence of an adequate legal framework, political support, strong governance mechanisms and appropriate professional skills (Tanjeh, 2016; ACCA, 2017). According to Transparency International, sub-Saharan Africa is among the worst-performing regions in the world (Mnif and Gafsi, 2020). For example, the 2023 average corruption perceptions indices in Somalia, Zimbabwe, and Liberia are 11, 24, and 25, respectively (TI, 2023).

Table 5 sets out the evolution of the compliance level with cash-based IPSAS disclosure requirements (MDR, EDR and FDR) during the study period.

The results in Table 5 show a significant increase in the level of compliance with the IPSAS standard and its different reporting components over time. The overall mean compliance level with the standard's FDR increases from 51.6% in 2020 to 58.3 in 2023, and this is the same case for the overall average compliance indices with MDR and EDR which increased from 47.7% to 60.7% and 49.4% to 55.6%, respectively. Despite the challenges and difficulties faced by developing economies in implementing IPSAS, these countries have relatively managed to improve the extent of compliance with the cash-based standard. significant efforts have been made by DCs' governments to strengthen transparency and financial accountability in the public sector. However, full compliance with the IPSASB' standard was not achieved during the 2020-2023 period.

Table 5: Compliance Level with Cash-Based Ipsas Disclosure Requirements by Year and by Country

Country	N	Disclosure requirements	Year/period 2020	2021	2022	2023	Whole period
Fiji	28	MDR	0.644	0.656	0.664	0.660	0.658
		EDR	0.645	0.644	0.677	0.709	0.669
		FDR	0.644	0.651	0.670	0.682	0.663
Jamaica	40	MDR	0.508	0.589	0.564	0.645	0.567
		EDR	0.612	0.616	0.638	0.645	0.612
		FDR	0.555	0.604	0.598	0.645	0.602
Lesotho	20	MDR	0.567	0.643	0.675	0.740	0.656
		EDR	0.516	0.516	0.548	0.548	0.532
		FDR	0.544	0.585	0.617	0.652	0.588
Liberia	32	MDR	0.439	0.442	0.442	0.442	0.432
		EDR	0.451	0.451	0.451	0.483	0.451
		FDR	0.444	0.446	0.446	0.461	0.448
Maldives	12	MDR	0.558	0.567	0.621	0.639	0.594
		EDR	0.569	0.602	0.602	0.602	0.596
		FDR	0.563	0.583	0.612	0.622	0.595
Pakistan	32	MDR	0.439	0.513	0.506	0.581	0.513
		EDR	0.403	0.415	0.419	0.419	0.419
		FDR	0.422	0.468	0.466	0.507	0.463
Rwanda	28	MDR	0.706	0.741	0.756	0.799	0.756
		EDR	0.714	0.714	0.741	0.741	0.741
		FDR	0.710	0.733	0.75	0.771	0.735
Sierra Leone	20	MDR	0.454	0.524	0.589	0.594	0.554
		EDR	0.451	0.451	0.516	0.516	0.483
		FDR	0.452	0.491	0.555	0.558	0.522
Somalia	16	MDR	0.324	0.324	0.351	0.351	0.337
		EDR	0.354	0.354	0.362	0.362	0.354
		FDR	0.338	0.338	0.356	0.356	0.345
Zimbabwe	20	MDR	0.432	0.486	0.486	0.567	0.486
		EDR	0.387	0.387	0.419	0.419	0.403
		FDR	0.411	0.441	0.455	0.5	0.448
All countries	248	MDR	0.477	0.557	0.567	0.607	0.567
		EDR	0.494	0.525	0.547	0.556	0.516
		FDR	0.516	0.547	0.558	0.583	0.558

4.2. Areas of non-compliance with cash-based IPSAS disclosure requirements

Areas of non-compliance in the accounting standard represent the key items in the financial statements for which the entity has not provided complete information in accordance with the accounting regulations applicable to a defined period. Table 6 reports, in more detail, the extent of compliance with cash-based IPSAS for each of its main parts by category of disclosure items and by country over the period from 2020 to 2023, identifying thereby the areas of non-compliance with the standard's requirements.

From Table 6, the study results indicate that compliance level with cash-based IPSAS disclosures by DCs' government entities varies significantly among the different item categories. Regarding Part 1 of the standard relating to the Mandatory Disclosure Requirements (MDR), the disclosure items of the two categories "Information to be disclosed in the statement of cash receipts and payments" and "Information about the entity" record the highest mean compliance levels, which are 82.9% and 79.5%, respectively, whereas disclosure items relating to the "Restrictions on cash balances and access to borrowings" have the lowest overall average compliance level (22.1%) during the period 2020-2023.

As regards Part 2 of the cash-based IPSAS standard (EDR), the disclosure items of the two categories "Going concern" and "Additional information on assets, liabilities, revenues, expenses and comparison with budget" register the highest mean compliance levels, which are 84 % and 57.2%, respectively, whereas disclosure items relating to the information category "Payments by third parties on behalf of the entity" record the lowest overall average compliance level (29.2%) over the 2020-2023 period.

Table 6: Compliance Level by Item Category of Cash-Based IPSAS for Each Country Over the 2020-2023 Period

Item category	Fiji	Jamaica	Lesotho	Liberia	Maldives	Pakistan	Rwanda	Sierra Leone	Somalia	Zimbabwe	All DCs
Panel A: Mandatory disclosure requirements (MDR)											
Information to be disclosed in the statement of cash receipts and payments	0.667	1.000	1.000	0.667	0.727	0.989	0.928	0.667	0.667	0.750	0.829
Reporting period	1.000	0.112	0.500	0.500	0.125	0.109	0.500	0.500	0.468	0.200	0.469
Information about the entity	0.585	0.940	0.950	0.600	0.750	0.918	0.964	0.910	0.400	0.75	0.795
Restrictions on cash balances and access to borrowings	0.321	0.100	0.133	0.333	0.250	0.104	0.416	0.167	0.333	0.100	0.221
Comparative information	0.500	0.500	0.650	0.500	0.625	0.109	0.598	0.250	0.333	0.500	0.508
Identification of financial statements	0.592	0.645	0.680	0.400	0.600	0.218	0.821	0.650	0.250	0.550	0.597
Correction of errors	0.678	0.500	0.416	0.104	0.583	0.662	0.750	0.416	0.333	0.500	0.416
Foreign currency	0.517	0.500	0.500	0.500	0.541	0.135	0.500	0.475	0.500	0.500	0.463
Budget information	0.714	.0.667	0.778	0.556	0.722	0.171	0.865	0.672	0.361	0.667	0.675
Changes in accounting policies	1.000	0.558	0.400	0.114	0.500	0.690	0.0714	0.250	0.354	0.250	0.438
Panel B: Encouraged disclosure requirements (EDR)											
Going concern	1.000	1.000	1.000	0.250	0.833	1.000	0.964	1.000	0.000	1.000	0.840
Administrated transactions	0.500	0.500	0.575	0.000	0.500	0.500	0.482	0.500	0.500	0.500	0.435

Disclosures of major classes of cash flows	0.500	0.598	0.875	0.500	0.541	0.109	0.517	1.000	0.000	0.500	0.443
Additional information on assets, liabilities, revenues, expenses and comparison with budget	1.000	0.500	0.600	1.000	0.500	0.000	0.982	0.500	0.500	0.000	0.572
Consolidated financial statements	0.928	0.500	0.250	0.750	0.500	0.250	0.750	0.250	0.234	0.500	0.327
Acquisitions and disposals of controlled entities and other operating units	0.750	0.667	0.333	0.333	0.667	0.333	0.667	0.333	0.333	0.333	0.478
Joint arrangements	0.667	0.500	0.500	0.500	0.458	0.500	0.500	0.500	0.500	0.000	0.500
Financial reporting in Hyperinflationary economies	0.500	1.000	0.500	1.000	0.958	0.500	0.964	0.500	0.000	0.000	0.524
Payments by third parties on behalf of the entity	0.892	0.825	0.250	0.468	1.000	0.000	0.982	0.250	0.667	0.000	0.292
Recipients of external and other assistance	0.522	0.588	0.636	0.272	0.492	0.622	0.698	0.500	0.284	0.590	0.528

5. Conclusion

This study aimed to assess the degree of government compliance with cash-based IPSAS disclosure requirements, specifically in the context of DCs, and to highlight the main areas of non-compliance with this standard during the period 2020-2023.
Based on a self-constructed checklist consisting of 68 disclosure items for a sample of 248 entity-year-observations relating to 62 central government entities from 10 DCS, the study findings reveal significant diversities in compliance levels with cash-based IPSAS disclosure requirements between the sampled DCs, varying between 33.8 % and 80.8 %, with an overall mean compliance index of 55.1% over the 2020-2023 period. Moreover, the research results demonstrate that, despite the significant improvement in the cash-based IPSAS disclosure level over time, full compliance with this standard has not been achieved by the sampled PESs. Thus, a number of non-compliance information areas are identified in the present research. The results of this research are consistent with previous empirical studies demonstrating significant differences in the level of compliance with IPSAS standards in developing economies (Pérez and Lopez-Hernandez, 2009; Abushamsieh et al., 2014; Mnif and Gafsi, 2020; Sellami and Gafsi, 2020; Mnif and Gafsi, 2024).
This study contributes to the public sector accounting literature by providing new insights into the degree of government financial transparency in the context of developing countries through the assessment of compliance with cash-based IPSAS disclosure requirements. Indeed, most of the existing studies focus on the assessment of the degree of compliance with local standards (Ingram,1984; Giroux, 1989; Lim and McKinnon, 1993; Christiaens, 1999; Ryan et al., 2002) or international standards, with more focus on accrual-based IPSAS (Pina and Torres, 2003; Pérez and Lopez-Hernandez, 2009; Abushamsieh et al., 2014; Benito et al., 2007; Mnif and Gafsi, 2020; Sellami and Gafsi, 2020; Mnif and Gafsi, 2024). However, still little empirical evidence on the compliance level with cash-based IPSAS disclosure requirements has been undertaken. To the authors' best knowledges, this research is among the first to focus exclusively on assessing the level of compliance with cash-based IPSAS and to identify the main areas of non-compliance with this standard.
The results of the current research could be interesting and useful as they provide practitioners, academics and researchers with an in-depth analysis of the assessment of the level of government compliance with cash-based IPSAS disclosure requirements in the context of DCs, highlighting the main problems encountered by PSEs in these economies in implementing this standard. The study results could also encourage the IFAC and the IPSASB in their ongoing efforts in the field of public sector international accounting harmonization by focusing on the areas of non-compliance with such specific IPSAS standard. Furthermore, our results might stimulate the supporting role of international financial institutions (WB, IMF, etc.) in disseminating IPSAS in developing economies. By assessing the degree of compliance with cash-based IPSAS, our results could also help DCs' policymakers in their accounting strategies to address the areas of non-compliance with this standard and further strengthen financial transparency and government accountability in order to facilitate the obtaining of foreign credits and financial assistance from transnational donors/lending institutions.
However, due to the lack of IPSAS adoption status for some DCs and the unavailability of annual reports of several PSEs, we could not include other countries/government entities, which is the main limitation of the present research which therefore opens the way for further future investigations on this topic. Indeed, it would be useful to expand the sample size to cover other PSEs operating in the context of developed or developing economies. Furthermore, it would be interesting to examine the determinants of compliance level with cash-based IPSAS and to analyze its impact on public sector management in several countries around the world.

References

[1] Abushamsieh K., Lopez-Hernandez A.M., Ortiz-Rodriguez, D. (2014). The development of public accounting transparency in selected Arab countries. *International Review of Administrative Sciences*, Vol. 80(2), 421-442. https://doi.org/10.1177/0020852313514522.

[2] Al-Shammari B., Brown P., Tarca A. (2008). An investigation of compliance with international accounting standards by listed companies in the Gulf co-operation council member states", *The International Journal of Accounting*, Vol. 43(4), 425-447. https://doi.org/10.1016/j.intacc.2008.09.003.

[3] Araya-Leandro, C. Caba-Pérez, M.D.C. López-Hernandez A.M. (2016). The convergence of the central American countries to international accounting standards. *Revista de Administraçao Pública*, Vol. 50(2), 265-283. https://doi.org/10.1590/0034-7612131665.

[4] Asian Development Bank, ADB (2017). Supporting Public Financial Management Reform. Manila; and ADB. 2014. Sector and Thematic Analyses in Policy Development. Manila.

[5] Ben Saâda M., Gafsi Y. (2019). Does disclosure of internal control system of credit risk improve banks' performance? Evidence from Tunisian listed banks. *International Journal of Financial Engineering* 6 (04), 1950031, https://doi.org/10.1142/S2424786319500312.

[6] Benito B., Brusca I. Montesinos V. (2007). The harmonization of government financial information systems: The role of the IPSASs. *International Review of Administrative Sciences*, Vol. 73(2), 293-317. https://doi.org/10.1177/0020852307078424.

[7] Bolívar M.P.R., Muñoz, L.A., Hernández A.M.L. (2013). Determinants of financial transparency in government. International Public Management Journal, Vol. 16(4), 557-602. https://doi.org/10.1080/10967494.2013.849169.

[8] Chan J.L. (2006). IPSAS and Government Accounting Reform in Developing Countries, in Accounting Reform in the Public Sector: Mimicry. Fad or Necessity", edited by Evelyne Lande and Jean-Claude Scheid (France: Expert Comptable Media), pp. 31-42.

[9] Christiaens J. (1999), "Financial Accounting Reforms in Flemish Municipalities: An Empirical Investigation", *Financial Accountability and Management*, Vol.15(1), 21–40. https://doi.org/10.1111/1468-0408.00072.

[10] Christiaens J., Vanhee C., Manes-Rossi F., Van Cauwenberge P., Aversano, N. (2015). The effect of IPSAS on reforming governmental financial reporting: an international comparison. *International Review of Administrative Sciences*, Vol. 81(1), 158-177. https://doi.org/10.1177/0020852314546580.

[11] Christensen J. (2010). Conceptual frameworks of accounting from an information perspective. *Accounting and Business Research*, Vol.40(3), 287-299. https://doi.org/10.1080/00014788.2010.9663403.

[12] Chouraqui J. (2020). Les réformes et l'État et la transformation des services publics : des tendances internationales au local, quels effets pour les territoires ? Annales de géographie, Vol. 732(2), 5-30. https://doi.org/10.3917/ag.732.0005.

[13] Ernst and Young (2018), "International public sector accounting standard's (IPSASs) disclosure checklist", 2018 edition.

[14] Giroux G. (1989). Political Interest and Government Accounting Disclosure", Journal of Accounting and Public Policy, Vol.8(3), 199–217. https://doi.org/10.1016/0278-4254(89)90004-5.

[15] Glaum M., Schmidt P., Street D.L., Vogel S. (2013). Compliance with IFRS3- and IAS36- required disclosures across 17 European countries: company- and country-level determinants. *Accounting and Business Research*, Vol. 43(3), 163-204. https://doi.org/10.1080/00014788.2012.711131.

[16] Guthrie J., Olson O., Humphrey C. (1999). Debating developments in New Public Financial Management: The limits of global theorizing and some new ways forward. *Financial Accountability & Management*, Vol.15(3–4), 209–228. https://doi.org/10.1111/1468-0408.00082.

[17] Ingram R.W. (1984). Economic Incentives and the Choice of State Government Accounting Practices. *Journal of Accounting Research*, Vol. 22(1), 126-144. https://doi.org/10.2307/2490704.

[18] International Monetary Fund, IMF (2011). Rwanda: A Decade of Difficult but Sustained Public Financial Management Reforms.

[19] Ministry of Finance and Economic Planning of Rwanda, MINECOFIN (2024). "Government and Development Partners Endorse New Public Financial Management Sector Strategic Plan".

[20] Juhmani O. (2017). Corporate governance and the level of Bahraini corporate compliance with IFRS disclosure. *Journal of Applied Accounting Research*, Vol.8(1), 22-41. https://doi.org/10.1108/JAAR-05-2015-0045.

[21] Dunleavy P., Hood, P. (1994). From old public administration to new management. *Public Money and Management*, Vol.14(3), 9-16. https://doi.org/10.1080/09540969409387823.

[22] Lapsley I. (1999). Accounting and the new public management: instruments of substantive efficiency or a rationalising modernity? *Financial Accountability and Management*, Vol.15(3), 201-207. https://doi.org/10.1111/1468-0408.00081.

[23] Lim S., McKinnon J. (1993). Voluntary Disclosure by NSW Statutory Authorities: The Influence of Political Visibility. *Journal of Accounting and Public Policy*, Vol.12(3), 189–216. https://doi.org/10.1016/0278-4254(93)90027-9.

[24] Lopes P.T., Rodrigues L.L. (2007). Accounting for financial instruments: An analysis of the determinants of disclosure in the Portuguese stock exchange. *The International Journal of Accounting*, Vol. 42(1), 25-56. https://doi.org/10.1016/j.intacc.2006.12.002.

[25] Mazzi F., Slack, R. and Tsalavoutas I. (2018). The effect of corruption and culture on mandatory disclosure compliance levels: Goodwill reporting in Europe", *Journal of International Accounting, Auditing and Taxation*, Vol. 31, 52-73. https://doi.org/10.1016/j.intaccaudtax.2018.06.001.

[26] Mnif Y., Gafsi Y. (2024). The influence of the socioeconomic and politico-administrative environment on the extent of compliance with IPSAS in developing countries. *Journal of Accounting in Emerging Economies*, Vol. 14(2), 273-299. https://doi.org/10.1108/JAEE-02-2022-0044.

[27] Mnif Y., Gafsi Y. (2020). A contingency theory perspective on the analysis of central government accounting disclosure under International Public Sector Accounting Standards (IPSAS). *Meditari Accountancy Research*, Vol.28(6), 1089-1117, https://doi.org/10.1108/MEDAR-04-2019-0480.

[28] Pérez C.C., López-Hernández A.M. (2009). Governmental financial transparency in MERCOSUR member countries. *International Review of Administrative Sciences*, Vol.75(1), 169-181. https://doi.org/10.1177/0020852308099511.

[29] Pina V., Torres L. (2003). Reshaping Public Sector Accounting: An International Comparative View. *Canadian Journal of Administrative Sciences*, Vol.20(4), 334-350. https://doi.org/10.1111/j.1936-4490.2003.tb00709.x.

[30] Ryan C., Stanley T., Nelson M. (2002). Accountability Disclosures by Queensland Local Government Councils: 1997–1989. *Financial Accountability and Management*, Vol.18(3), 261–289. https://doi.org/10.1111/1468-0408.00153.

[31] Sellami Y.M., Gafsi Y. (2020). Public management systems, accounting education, and compliance with international public sector accounting standards in sub-Saharan Africa. *International Journal of Public Sector Management*, Vol. 33(2/3), 141-164. https://doi.org/10.1108/IJPSM-12-2018-0274.

[32] Sellami Y.M., Gafsi Y. (2018). Evolution of Government Accounting". In: Farazmand A. (eds) Global Encyclopedia of Public Administration, Public Policy, and Governance. Springer, Cham, pp. 1-7, https://doi.org/10.1007/978-3-319-31816-5_3422-1.

[33] Sukmadilaga C., Arie Pratama A., Mulyani S. (2015). Governance Implementation in Public Sector: Exploratory Analysis of Government Financial Statements Disclosures Across ASEAN Countries. *Procedia-Social and Behavioral Sciences*, Vol.211, 513-518. https://doi.org/10.1016/j.sbspro.2015.11.068.

[34] Tejedo-Romero F., Araujo J.F.F.E. (2018). Determinants of local governments' transparency in times of crisis: evidence from municipality-level panel data. *Administration and Society*, Vol. 50(4), 527-554. https://doi.org/10.1177/0095399715607288.