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Public Sector Accounting Reforms in the Light of the Contingency Model of Government Accounting Innovations

ABSTRACT

Objective: Conducted a theoretical discussion on the results of the international literature related to public sector accounting reforms in the light of Lüder's Contingency Model of Governmental Accounting Innovations (CMGAI).

Method: This is a theoretical essay supported by literature review techniques and a classic model of comparative studies of government accounting.

Originality/Relevance: Unlike the literature and systematic reviews carried out on the subject, the CMGAI was innovated by adopting the CMGAI as a theoretical basis for systematization and reflection of the findings of the international literature.

Results: The essay argued that the implementation of the accrual-basis regime is a process of governmental accounting innovation. It identifies the main theoretical gaps and systematizes and discusses the main findings of the international literature in four main categories: stimuli, user expectations, readiness of information producers and implementation barriers.

Theoretical/Methodological Contributions: The work proposes a new approach to analyze the phenomenon of implementation of governmental accounting reforms based on international standards based on the accruals regime, expands the view on the causative factors and barriers of the process, in addition to identifying relevant literature gaps that may lead to new studies.

Keywords: Accounting Convergence. Accrual Regime. IPSAS. Accounting Innovation.

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1 INTRODUCTION

Adopting the accrual accounting regime (RCA) or competence in public sector accounting is justified by achieving a Fair View or Fair View on the public finances of national and subnational entities to strengthen transparency and accountability in the public sector (Moretti, 2016). In this sector, the accounting regimes used for the recognition of budgetary and accounting transactions vary between countries and may be cash-basis, cash transitioning to accrual basis, and accrual-basis.

Despite the results of the OECD Accruals Survey (Moretti, 2016), which analyzes the global panorama of RCA implementation in OECD countries, describing a "natural" migration trajectory to financial reports and budgets prepared on an accrual basis in member countries, the international literature presents inconclusive results. Moreover, it does not fully or partially adhere to the New Public Management (NPM) agenda embodied in the reforms proposed by the OECD.

The international literature on the RCA implementation process in developed economies (Adhikari & Gårseth-Nesbakk, 2016; Becker, Jagalla & Skaerbaek, 2014; Cuadrado-Ballesteros, Citro & Bisogno, 2020; Eulner & Waldbauer, 2018; Frintrup, Schmidhuber & Hilgers, 2020; Gomes, Fernandes & Carvalho, 2015; Hyndman & Connolly, 2011; Hyndman, Liguori, Meyer, Polzer, Rota, Seiwald & Steccolini 2018; Moretti, 2016; Oulasvirta, 2014) in emerging economies (Adhikari, Kuruppu & Matilal, 2013; Adhikari, Jayasinghe, Soobaroyen, Wynne, Malagila & Abdurafiu, 2021; Azevedo, Lino, Aquino, & Machado-Martins, 2020; Efendi, Dewi & Gamayuni, 2018; Goddard, Assad, Issa, Malagila & Mkasiwa, 2016; Harun, An & Kahar, 2013; Helden & Ouda, 2016; Wang & Miraj, 2018) and in both (Christiaens, Reyniers & Rollé, 2010; Kartiko, Rossietta, Martani & Wahyuni, 2018; MnifSellami & Gafsi, 2019; Vivian & Maroun, 2018) approaches the RCA implementation process from different objectives, contexts and theoretical-methodological perspectives, which makes it difficult to systematize the results for a broad understanding of this phenomenon. Moreover, the absence of a common theoretical-methodological framework to systematize the results of these investigations constitutes a gap to be filled in the literature on the RCA implementation process in different countries.

Based on the presented gap, it is highlighted that comparative studies in government accounting have been carried out since the 1990s based on contingency models of government accounting innovations (Lüder, 1992, 1994, 2000, 2002) analyzing the introduction of accounting innovations in the Public sector. Furthermore, according to Matias-Pereira (2021), other studies have used institutional approaches to investigate accounting reforms in the public sector, such as Revorêdo (2008) and Gomes *et al.* (2015).

This theoretical essay aims to discuss the results of the international literature related to public sector accounting reforms in light of Lüder's Contingency Model of Governmental Accounting Innovations (CMGAI); this is a theoretical essay supported by literature review techniques and a classic model of comparative studies of government accounting. Starting from the premise that the implementation of accrual-basis, through the adoption of international standards, represents a process of innovation in accounting practices in the public sector and that different from other works that analyze the phenomenon of implementation of accrual-basis (Borges, Mario, Cardoso & Aquino, 2010; Sasso & Varela, 2020), innovates by adopting the CMGAI as a theoretical basis for systematization and reflection on the findings of the international literature.

The work on screen contributes to the literature by filling the gap related to the absence of a common theoretical-methodological framework to systematize the results of the international literature on the RCA implementation process in different countries, proposing a

methodology to build an analysis framework based on research gaps on the factors analyzed to build an agenda for future investigations on the subject. It also contributes by analyzing the accounting and budgeting reforms aligned with the NPM already underway in developed and developing countries, identifying the key variables of this process, and scaling the relevance of factors related to the implementation of RCA in the public sector from a model of contingency of government accounting innovations as a way of understanding the challenges in implementing reforms in budgeting, accounting and cost practices for accrual accounting basis in a broader perspective.

The work is structured as follows: In Section 2, the CMGAI is presented; in Section 3, the international literature on the implementation of the RCA is examined in the light of each of the CMGAI modules; and finally, the final considerations of the work are presented.

2. CONTINGENCY MODEL FOR GOVERNMENT ACCOUNTING INNOVATIONS OF LÜDER - CMGAI

According to Lüder (1992), the CMGAI is based on the organizational contingency theory, which also includes behavioral components to analyze institutional conditions and collective behavior in the processes of accounting innovation in the public sector through context variables that describe these conditions. The model's focus is the transition from current government accounting systems to more informative models, seeking to explain the accounting innovation process involved. This model is based on five premises regarding the innovation process:

Table 1

Assumptions of the Government Accounting Innovation Process

Premise 1	Several stimuli, individually or in combination, initially reveal the need for improved information.
Premise 2	There are two sets of structural variables describing the fundamental attitudes of information users and producers, respectively, towards the role of information on government financial management and administrative efficiency.
Premise 3	Information users' expectations of change are influenced by their basic attitudes and the stimuli in the initial situation. The willingness of information producers to make changes is equally affected by these two factors and by the effects of information users' expectations of change.
Premise 4	The start of the innovation process does not necessarily require the existence of a stimulus. Basic attitudes (that have been changed) can also raise the willingness to make changes such that the decision to do so is taken.
Premise 5	The decision to innovate depends on the information producer's willingness to change and the implementation barrier. Two extreme cases are conceivable. In the first case, if all factors that affect implementation are neutral to changes, the innovation-decision is determined by the degree of willingness to accept the change. In the second case, if all factors affecting implementation inhibit change, a high degree of willingness to accept is required, or change may not be possible.

Source: Lüder (1992, pp.109-110)

The CMGAI has four modules: (1) the stimulus module, (2) the structural variables module for information producers, (3) the module for structural variables for information users, and (4) the implementation barriers module. Figure 1 shows the influences of situational or context variables on the attitudes and behaviors of participants in the CMGAI.

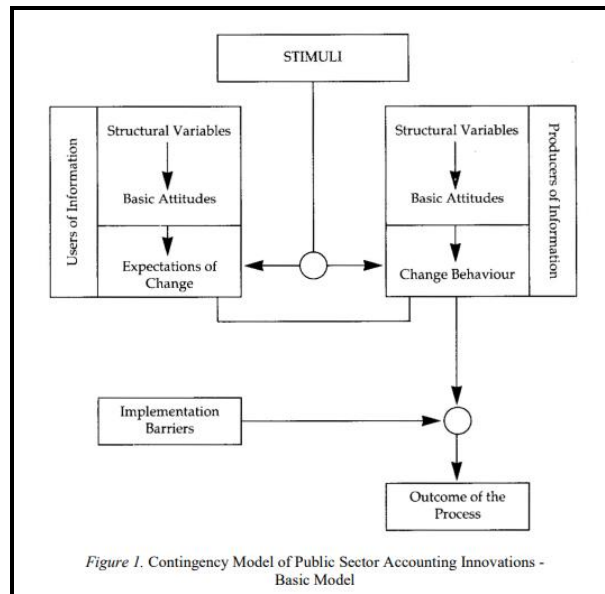


Figure 01. Influences of the CMGAI Modules
 Source: Lüder (1992, p.109)

It can be seen in the CMGAI scheme that the stimulus variables act both on the expectations of changes in the information demands of the users' accounting system and the change in the behavior of information producers. In turn, these agents have their attitudes determined by structural variables related to the social and political-administrative systems in which they operate. It is also noteworthy that the change or migration to a more informative accounting system or practice does not depend only on the change in the behavior of the information producer but also on the effect of implementation barriers on innovation.

According to Lüder (1992), because it is a contingency-based model, specific configurations or institutional components influence the attitudes and behavior of participants, unlike models of economic approach where self-interest in maximizing one's utility and structural individualism are the assumptions that determine the behavior of agents.

3. A REFLECTION ON CMGAI MODULES AND THE ADOPTION OF RCA IN THE PUBLIC SECTOR

The purpose of this section is to present some reflections as it addresses, in a non-exhaustive way, the context variables in each of the CMGAI modules seen in the previous section. As a method of data presentation and analysis, a set of tables representing each of the dimensions of the CMGAI is used, in which the lines represent the context variables that integrate the respective modules of the CMGAI and the columns enumerate the studies carried out in developed economies, developing and mixed studies. At the intersections between rows and columns (factors x studies), the + sign indicates the presence of the analyzed factor and one or more studies in the literature on implementing RCA.

3.1 Stimulating Factors for the Implementation of the Accruals Regime in the Public Sector

Within the Stimulus Module, the stimulus variables responsible for the demand for a greater level of informativeness of the accounting systems by the users of information with the producers are analyzed, which are also responsible for increasing the readiness of the latter to serve the users. For example, for Lüder (1992), "There are a series of stimuli, which

individually or in combination, initially reveal the need for improved information" (p.109). The table below summarizes some studies conducted in developed countries related to the context variables presented within the module to encourage the adoption of the RCA.

Table 02

Studies on incentives from developed countries for changes in government accounting

Factors	1	2	3	4	5	6	7	8	9	10
CMGAI stimuli x Literature										
F1. Fiscal Stress (FS)				+					+	
F2. Financial Scandal (FSC)										+
F3. Capital Market (CM)										
F4. External Accounting Regulator (EAR)										
F5. Professional Accounting Associations (PAA)										
Other Stimuli x Literature										
<i>Where: (1) Hyndman and Connolly (2011); (2) Becker et al. (2014); (3) Oulasvirta (2014); (4) Gomes et al. (2015); (5) Adhikari and Gärseth-Nesbakk (2016); (6) Moretti (2016); (7) Eulner and Waldbauer (2018); (8) Hyndman et al. (2018); (9) Frintrup et al. (2020); and (10) Cuadrado-Ballesteros et al. (2020)</i>										

According to Lüder (1992), financial problems causing financing dependencies stimulate reforms in accounting systems. In the context of current reforms, Fiscal Stress (FS) was addressed by Gomes et al. (2015), investigating the public accounting reform in Portugal for an accruals standard based on IPSAS and concluding that most of the surveyed stakeholders agree that the reform occurs due to a context of financial crisis, high international pressure to reduce the public deficit and improving the quality of financial information.

Corroborating the relevance of fiscal stress in this process, for Frintrup et al. (2020), "serious tax problems, insufficient comparability of financial information and growing demands for better accountability require national governments to change their current accounting regimes and move towards a system of standardized accounting practices" (p.1). The work also points out that in this initial phase of developing European Public Sector Accounting Standards - EPSAS, understanding the factors associated with a country's decision to adopt them can be useful for professionals, influencing user expectations and changes in managers' behavior.

Financial scandals involving waste of resources or corruption can trigger reformulations in accounting to make it more informative (Lüder, 1992). In this sense, studies were also identified relating motivations related to Financial Scandals (FSC) for adopting RCA. Investigating 33 OECD countries between 2011 and 2014, Cuadrado-Ballesteros et al. (2020) conclude that corruption is reduced as governments advance public sector accounting reforms by adopting international public sector accounting standards or implementing RCA.

Table 03

Literature on developing country stimuli for changes in government accounting

Factors	1	2	3	4	5	6	7	8	9	10
CMGAI stimuli x Literature										
F1. Fiscal Stress (FS)				+						
F2. Financial Scandal (FSC)										
F3. Capital Market (CM)										
F4. External Accounting Regulator (EAR)										+
F5. Professional Accounting Associations (PAA)										
Other Stimuli x Literature										
F6. Necessity of Replacement of the Current System										+
<i>Where: (1) Adhikari et al. (2013); (2) Harun et al. (2013); (3) Helden and Ouda (2016); (4) Goddard et al. (2016); (5) Wang and Miraj (2018); (6) Efendi et al. (2018); (7) Azevedo et al. (2020); (8) Adhikari et al. (2021)</i>										

The analysis of the incentives for carrying out changes in the accounting system of developing countries shows similar results (Table 03). As expected, the FS is a present stimulus for migration from developing countries to CAR. According to Helden and Ouda (2016), the migration to CAR by emerging economies is a response to pressure from institutions such as the World Bank and IMF and the need to improve the information for managing public policies and accountability. Among the counterparts of the financial aid programs operated by the resource donors (BM and IMF) are market opening measures, privatization programs, administrative and financial reforms (including in this role, the migration to accounting and budget information prepared on an accrual basis).

The nature of these conditions for the bailout is in line with the OECD's proposed reforms of accounting and budgeting systems. Ultimately, the improvement in the quality of information sought by external agents (WB, IMF, and OECD) for these nations is the full recognition of all relevant assets and liabilities by accounting and budget reports on an accrual basis.

According to Adhikari *et al.* (2021), analyzing through Institutional Logic the process of implementing RCA based on IPSAS in Sub-Saharan African countries, it was identified a parallel stimulus generated by the epistemic community (market and accounting corporation) of marginalization and discrediting of established systems of local accounting, used as a strategy to facilitate the imposition of the new accounting system assumed to be more informative and in which only through it the premises of transparency and accountability could be achieved. In the table below, we systematize some studies aggregating both developed countries and developing economies, seeking more generalizable results for this question.

Table 04

Studies on stimuli from developed and developing countries for changes in government accounting

Factors	1	2	3	4	5	6	7	8	9	10
CMGAI stimuli x Literature										
F1. Fiscal Stress (FS)										+
F2. Financial Scandal (FSC)				+						
F3. Capital Market (CM)										
F4. External Accounting Regulator (EAR)		+								
F5. Professional Accounting Associations (PAA)										
Other Stimuli x Literature										
F6. Fiscal Transparency										+

Where: (1) Christiaens *et al.* (2010); (2) Vivian & Maroun (2018); (3) Kartiko *et al.* (2018); (4) MnifSellami and Gafsi (2019)

MnifSellami and Gafsi (2019) investigated the environmental factors associated with countries' decision to adopt International Public Sector Accounting Standards (IPSAS) based on accruals. The results reveal a positive influence of external public funding (coercive isomorphic pressure), the degree of external openness (mimetic isomorphic pressure), and the importance of public sector organizations in adopting IPSAS, using a sample of 110 countries.

In these studies, the factor related to the presence of a standard issued by an External Accounting Regulator (EAR) also stands out. However, it is important to point out that although the term "regulation" is used, we do not speak here of compulsory compliance with the standards issued but of the presence of an international body that recommends accounting practices intending to improve the informativeness of the systems.

For Christiaens *et al.* (2010), the diversity in government financial information systems created the need to harmonize international accounting standards, resulting in the elaboration of the IPSAS (International Public Sector Accounting Standards), an accrual

accounting basis. They conducted a study that reveals the diversity in the process of adopting IPSAS and the accruals regime. According to the researchers, who sought to assess the extent to which European governments adopt IPSAS and their different levels of adoption, some governments still use cash-based accounting, only a minority apply IPSAS. Most local and central governments apply the accruals regime disregarding IPSAS. The need for transparency and efficiency can explain this trend. The fact that IPSAS are unique and offer specific know-how is the main argument for making use of them. However, many jurisdictions do not adopt IPSAS because they prefer their own local accounting rules.

Kartiko *et al.* (2018) explored the level of implementation of IPSAS based on governments' accruals regime and tested measures associated with central government fiscal transparency. Performing content analysis and Confirmatory Factor Analysis (CFA) on a sample covering 77 countries from 2008 to 2015 confirmed the relative importance and significance of accounting reports prepared based on the accruals regime. Evidence suggests that central governments should strategically implement IPSAS based on the accruals regime as it (implicitly or explicitly) enhances fiscal transparency.

Both in the view of Christiaens *et al.* (2010) and Kartiko *et al.* (2018), fiscal transparency appears as a stimulus to the transition process of accounting systems. This is a context variable not addressed directly in the CMGAI, which can be associated with the FSC factor, as the reaction to financial scandals is the demand from users for greater transparency. Increased transparency is one of the arguments for the reforms advocated by the BM, IMF, OECD, and IPSASB, which, based on these results, was highlighted in the table.

The analysis of the CMGAI stimulus module suggests that fiscal stress, associated with financial or corruption scandals and an external accounting regulator issuing high standards, constitute a tripod of stimuli for reforming accounting systems in both developed and under development. This result is in line with a perception that encouraging countries to migrate to the CAR has a fiscal nature, legitimized by accounting bodies that issue high standards and enforced by international financial institutions BM, IMF, and their OECD donors.

Despite the results of these studies on the context variables related to the stimuli for the adoption of RCA, there are strong criticisms of how the adoption of RCA has been imposed in practice by organizations such as the OECD, WB, and IMF. The discourse of improving transparency and accountability and the promise of making full costing feasible in the public sector, which justifies the inevitability of changing the accounting regime, are closer to an emotional appeal than backed by empirical bases on their effective results pointed out in the literature (Carlin, 2005). The risks to transparency and accountability arising from creative accounting through the management of discretionary accruals are omitted, and that regime change is only the initial step in the complex process of implementing full costing in the public sector. These considerations are necessary at the risk of biasing the debate on the stimuli for implementing RCA in the public sector as a pacified phenomenon in the literature.

3.2 Factors that Act on Attitudes about Users' Expectations and the Readiness of Information Producers

According to Lüder (1992), the structure variables are characteristics of the social and political-administrative systems that influence the basic attitudes of users and information producers concerning the increase in the level of informativeness of the accounting system. The variables are divided into two groups. Those that act on information users and variables that act on information producers represent the values of the political-administrative system of

public organizations, affecting their readiness for innovation in accounting information systems in response to user demand and stimulus variables.

In this section, the modules of users and producers of the CMGAI information will be jointly analyzed for comparison purposes based on assumptions 2 and 3 of the model. Based on the CMGAI and the literature on RCA implementation processes (based or not on IPSAS), we seek to identify the social factors that influence, on the one hand, the attitudes of information users, changing their expectations regarding the informative power of reports. Moreover, on the other hand, the political and administrative system factors influence the change in behavior of the producers of accounting information to establish a new parameter for the production of accounting information.

Table 05

Studies on the effects of structural variables on the attitude of users and producers of accounting information in developed countries

Factors	1	2	3	4	5	6	7	8	9	10
Information Users Module										
Social Structure										
F1. Socioeconomic Status (SS)										
F2. Political Culture (CULT)										
Changing Expectations (Citizens and Others)										
Information Producers Module										
Political-Administrative System										
F3. Training and Recruitment of Personnel (TRP)										
F4. Administrative Culture (CADM)			+		+		+			
F5. Political Competition (POL)										
Behavior Change (Politicians and Bureaucrats)	x		x		x					

Where: (1) Hyndman and Connolly (2011); (2) Becker et al. (2014); (3) Oulasvirta (2014); (4) Gomes et al. (2015); (5) Adhikari and Gårseth-Nesbakk (2016); (6) Moretti (2016); (7) Eulner and Waldbauer (2018); (8) Hyndman et al. (2018); (9) Frintrup et al. (2020); and (10) Cuadrado-Ballesteros et al. (2020)

Regarding the administrative culture of developed countries, studies 1, 3, and 5 confirmed its influence on the attitudes of information producers in implementing the RCA. Furthermore, Adhikari and Gårseth-Nesbakk (2016), conducting a study with accountants, budget executives, and politicians involved in the implementation of financial reporting and budgeting on an accrual basis in different OECD member countries, demonstrated that the technical and political divergences in the implementation of the regime of accruals among member countries are much higher than the results evidenced in academic research and the reports prepared by its proponents.

According to Hyndman and Connolly (2011), migration to CAR is consolidated in the central government of the United Kingdom. However, interviews with managers indicate that the complexity of the RCA makes it difficult to understand the information produced, impacting the conviction that its adoption resulted in a more informative model for decision-making. Also, in this study, it was identified that the results obtained in the RCA adoption process in the United Kingdom discouraged the adoption process in the Republic of Ireland, which did not embrace the NPM reforms at the administrative level with the same conviction.

Oularsvirta (2014), analyzing the Finnish government's rejection of IPSAS implementation, suggests that countries with consolidated accounting systems within the administrative structure and considered to have a good level of informativeness are a factor capable of inhibiting the behavior change of information producers to promote the system change.

Table 6
Studies on the effects of structural variables on the attitude of users and producers of accounting information in developing countries

Factors	1	2	3	4	5	6	7	8	9	10
Information Users Module										
Social Structure										
F1. Socioeconomic Status (SS)										
F2. Political Culture (CULT)										
Changing Expectations (Citizens and Others)										
Information Producers Module										
Administrative Political System										
F3. Training and Recruitment of Personnel (TRP)	+					+				
F4. Administrative Culture (CADM)	+		+					+		
F5. Political Competition (POL)										
Behavior Change (Politicians and Bureaucrats)	x		x			x		x		

Where: (1) Adhikari et al. (2013); (2) Harun et al. (2013); (3) Helden and Ouda (2016); (4) Goddard et al. (2016); (5) Wang and Miraj (2018); (6) Efendi et al. (2018); (7) Azevedo et al. (2020); (8) Adhikari et al. (2021)

Developing countries present factors related to Administrative Culture (CADM) and Training and Recruitment of Personnel (TRP) influencing the behavior change of information producers (favorably or unfavorably). Helden and Ouda (2016), analyzing factors related to local political conditions for implementing the reform agenda, highlight that the polarization between the NPM philosophy and the hegemonic political and cultural vision of developing nations is a significant variable in predicting the degree of success in implementing the accounting reform agenda.

Adhikari et al. (2013), in a survey on the implementation of accounting reforms conducted in Nepal and Sri Lanka, identified that despite strong resistance from the administrative structure to the reforms, colonialist influence played a decisive role in the investments in education and training carried out in Sri Lanka, and that made it possible to implement some changes. However, resistance factors prevailed in Nepal, and no change occurred despite the investments made.

Efendi et al. (2018) studied the RCA utility in the financial statements of the Lampung provincial government through interviews with budget managers. The results showed that the RCA information has not been useful by the local government in decision-making due to the following factors: the data from the local government's financial statements are not disclosed in full and are not presented completely and validly; the use of information in the financial statements was not regulated; users have low understanding of using financial reporting information for decision making.

In Brazil, Azevedo et al. (2020) highlight the role of administrative culture in adopting and maintaining IPSAS-based RCA. For the authors, Financial Management Information Systems (FMIS) are strategic in this implementation and call attention to the need to observe the SIGF contracting policies to preserve the advances obtained through clauses that prevent the discontinuity of functions related to the RCA.

International studies in developed and developing nations confirm the CADM's influence on information producers' behavior. For example, according to Vivian & Maroun (2018), conducting an international study to evaluate the responses to the adoption of NPM principles and IPSAS-based RCA with stakeholders, identified that accounting professionals tend to support proposals that are consistent with NPM principles, providing evidence of normative and mimetic isomorphic pressure to align public and private sector accounting practices. However, some government agencies and international organizations appear to have

complied, but most resist efforts to incorporate a new NPM discourse into public sector accounting.

Table 7

Studies on the effects of structural variables on the attitude of users and producers of accounting information in developed and developing countries

Factors	1	2	3	4	5	6	7	8	9	10
Information Users Module										
Social Structure										
F1. Socioeconomic Status (SS)										
F2. Political Culture (CULT)										
Changing Expectations (Citizens and Others)										
Information Producers Module										
Administrative Political System										
F3. Training and Recruitment of Personnel (TRP)										
F4. Administrative Culture (CADM)		+	+							
F5. Political Competition (POL)										
Behavior Change (Politicians and Bureaucrats)	x	x								

Where: (1) Christiaens *et al.* (2010); (2) Vivian & Maroun (2018); (3) Kartiko *et al.* (2018); (4) MnifSellami and Gafsi (2019)

The analysis of the CMGAI's information production module points out that the Administrative Culture (CADM) and the Training and Recruitment of Personnel (TRP) are factors responsible for influencing the behavior of information producers in both developed and developing countries. The research results indicate that the predisposition to adopt the RCA based or not on IPSAS depends on factors such as an administrative culture that adheres to the principles of NPM, the existence (or not) of quality public accounting, quality of management information systems (FMIS) and investments in training and recruitment policies compatible with the complexity of implementing RCA in the public sector.

Initially, research on socioeconomic factors and political culture influencing users' expectations were not identified. However, the economics literature on tax illusion studies demonstrates different expectations between net contributors and net beneficiaries concerned with more informative reporting on income and expenditure, respectively. In this essay, it is suggested that there is a gap in studies in the accounting area on the factors that influence the attitudes and, consequently the expectations of users of accounting information. Furthermore, this gap in studies regarding end users, citizens, and their representatives suggest that international financial institutions (BM, IMF) and their OECD maintainers, in addition to being responsible for encouraging change, also dictate expectations regarding information through the IPSAS issued IPSASB or IFRS-based public accounting (UK case) or a local RCA. Considering that these expectations are directed directly to the producers of information, as seen in Figure 01, and that these institutions are also part of the CMGAI users module, the focus of the studies on the variables that influence the behavior of producers would be justified.

A discussion in this scenario in both developed and developing countries concerns using RCA-generated information after implementation, which should also be investigated (Efendi *et al.*, 2018; Hyndman & Connolly, 2011). After all, the main arguments for the transition to RCA are the improvement of transparency and accountability for users. A recurring criticism of RCA deployment lies precisely in the cost-benefit trade-off of deployment for end users. It is pacified in the literature that there is a significant volume of investments in training and information systems in the implementation process. However, it cannot be said with certainty that these investments will be converted into informational benefits for external (transparency and accountability) and internal users. (information on costs for decision making).

3.3 RCA Implementation Barriers

This section analyzes the main barriers to RCA implementation in developed and developing countries. According to Lüder (1992), "the decision to innovate depends not only on the information producer's willingness to change but also on the implementation barrier." (p.110). The main implementation barriers addressed by the CMGAI are shown in Table 8.

Table 8

Studies on implementation barriers in developed countries

Factors	1	2	3	4	5	6	7	8	9	10
CMGAI Implementation Barriers										
F1. Organizational Characteristics (OC)						+				
F2. Legal System (LS)										
F3. Qualification of Accounting Officers (QAO)		+								
F4. Size of Jurisdiction (SIZE)										
Other Implementation Barriers										
F5. Information Systems (IS)						+			+	
F6. Implementation and Use Costs (IUC)		+								

Where: (1) Hyndman and Connolly (2011); (2) Becker et al. (2014); (3) Oulasvirta (2014); (4) Gomes et al. (2015); (5) Adhikari and Gårseth-Nesbakk (2016); (6) Moretti (2016); (7) Eulner and Waldbauer (2018); (8) Hyndman et al. (2018); (9) Frintrup et al. (2020); and (10) Cuadrado-Ballesteros et al. (2020)

It is identified that in developed countries, factors related to the variables Organizational Characteristics (OC) and the Qualification of Accounting Officers (QAO) are adherent to the CMGAI model, while barriers not initially foreseen in the model are identified in the literature: Systems Information (SI) and Implementation and Usage Costs (IUC).

Among the main challenges detected by the OECD Accruals Survey (2016) for full migration to RCA are: i. full identification and valuation based on accruals of assets and liabilities; ii. implementation of the necessary information technology (IS) infrastructure; and iii. political resistance to necessary legal changes (CO). In addition, according to Hyndman and Connolly (2011), adopting RAC led to significant increases in implementation and usage costs (IUC).

Still, regarding the challenges of member countries in adopting the reform agenda, Becker et al. (2014) propose a different line of research based on the impact of the transition from the cash to accrual basis model on the professionals involved in the implementation. In the present work, they analyzed the impact of the introduction of Accrual Output-Based Budgeting (AOBB) in two German states on Public Accountants and the particular challenges faced by these professionals related to the QAO factor.

The work by Frintrup et al. (2020) identified information technology (IS) costs as a potential barrier to EPSAS implementation. Politicians and regulators can consider this as they develop European Public Sector Accounting Standards.

Table 9

Studies on implementation barriers in developing countries

Factors	1	2	3	4	5	6	7	8	9	10
CMGAI Implementation Barriers										
F1. Organizational Characteristics (OC)					+					
F2. Legal System (LS)										
F3. Qualification of Accounting Officers (QAO)			+		+	+				
F4. Size of Jurisdiction (SIZE)										
Other Implementation Barriers										
F5. Information Systems (IS)			+			+				
F6. Implementation and Usage Costs (IUC)			+							

Where: (1) Adhikari et al. (2013); (2) Harun et al. (2013); (3) Helden and Ouda (2016); (4) Goddard et al. (2016); (5) Wang and Miraj (2018); (6) Efendi et al. (2018); (7) Azevedo et al. (2020); (8) Adhikari et al. (2021)

By analyzing Table 9, it is identified that in developing countries, factors related to Organizational Characteristics (OC) and the Qualification of Accounting Officers (QAO) also constitute the main barriers to implementation and, as in developed countries, Information Systems (IS) constitute an implementation barrier not foreseen in the original model.

Helden and Ouda (2016) analyzed the institutional capacity of the public sector in emerging countries to carry out reforms due to the great technical complexity of implementing the RCA. The limitations of the public sector in emerging economies range from the lack of resources to carry out inventories through the lack of qualified human resources and technological infrastructure that supports the complexity of the models to be implemented and resources that are essential for the implementation and continuity of reforms.

For Efendi *et al.* (2018), among the difficulties of implementing the RCA in the province of Lampung in Indonesia are the following factors: the accounting information system (IS) does not fully follow the accruals regime and is not integrated with the planning and asset subsystems; small number of servers and low understanding and low qualification of the staff in accounting (QAO).

Wang and Miraj (2018) examined the extent of adopting International Public Sector Accounting Standards (IPSAS) in South Asia and the challenges slowing this process. The main barriers identified by the study were; lack of experienced staff, delay in providing information by public authorities, and lack of a defined implementation schedule that appears to be transversal to these countries.

Table 10

Studies on implementation barriers in mixed studies

Factors	1	2	3	4	5	6	7	8	9	10
CMGAI Implementation Barriers										
F1. Organizational Characteristics (OC)										
F2. Legal System (LS)										
F3. Qualification of Accounting Officers (QAO)										
F4. Size of Jurisdiction (SIZE)										
Other Implementation Barriers										
F5. Existence of Local Quality Standards (LQS)		+							+	

Where: (1) Christiaens *et al.* (2010); (2) Vivian & Maroun (2018); (3) Kartiko *et al.* (2018); (4) MnifSellami and Gafsi (2019)

More extensive studies involving developed and developing countries point to a factor not identified in isolation in developed and developing countries. The existence of local quality standards (LQS) constitutes barriers to implementation, specifically IPSAS, since, in these countries, the public accounting system is already based on the RCA.

Christiaens *et al.* (2010) conducted a study demonstrating the diversity in the adoption process of IPSAS and RCA, analyzing the degree of adoption of IPSAS by European governments and their different stages of adoption. They found that some governments still use cash-based accounting and only a minority apply IPSAS. Most local and central governments apply the RCA disregarding the IPSAS, using as justification the need to achieve transparency and efficiency arising from the preference for their own local accounting rules. The work of MnifSellami and Gafsi (2019) demonstrated a negative effect of the availability of local GAAP on this decision, while the level of education (normative isomorphic pressure) was a non-significant factor.

The CMGAI implementation barriers module analysis suggests that Organizational Characteristics (OC) and Qualification of Accounting Officers (QAO) are barriers present in both developed and developing countries. Additionally, the literature review of the last 10 years consistently points out that in the implementation process, Information Systems (IS) and

Implementation and Usage Costs (IUC) play a decisive role in the success of the migration to RCA (based or not in IPSAS) in developed and developing countries. The analyzes also suggest that the Existence of Local Quality Standards (LQS), notably in developed nations, act as barriers to implementation explicitly related to the adoption of IPSAS, given that usually these LQSS are already based on the RCA.

Research on barriers related to legal systems (LS) as implementation barriers was not initially identified. One of the possible explanations is that their effect is diluted in factors such as CO and QAO, given that it is already pacified in the accounting literature that nations with code law legal regimes face greater difficulty in implementing principles-based accounting in countries with a common law legal system. In addition, no specific barriers were identified on the Size of Jurisdiction (SIZE), representing a gap in the literature to be explored.

It is considered that in the current phase of adoption of RCA in the public sector, studies on implementation barriers acquire more relevance for both developed and emerging countries as they are directly related to the cost-benefit trade-off of changing the accounting regime, given that the literature on this aspect is still relatively incipient. However, the results are inconclusive, especially in the latter.

4. FINAL CONSIDERATIONS

The implementation of the RCA constitutes the central axis of the public sector accounting reform agenda based on the NPM and carried out by the IPSASB/OECD under the argument that the improvement of transparency and accountability in the public sector is an inevitable process. However, the results of studies on implementing the RCA systematized through the CMGAI are inconclusive in this regard, reinforcing Carlin's (2005) argument that the process of implementing the RCA is much deeper than it appears mainly when considering the numerous factors discussed in this essay.

The results discussed here expose gaps in the OECD Accruals Survey (Moretti, 2016) related to the implementation process and its benefits, while characterizing the implementation of the RCA as a process of governmental accounting innovation through the consolidated theoretical-methodological model (CMGAI) in comparative studies in government accounting, and systematizes and discusses the main findings of the international literature of the last 10 years in: stimuli, user expectations, readiness of information producers and implementation barriers.

The results suggest that fiscal stress, associated with financial or corruption scandals and an external accounting regulator issuing high standards, constitute a tripod of incentives for reforming accounting systems in both developed and developing countries. Administrative Culture (CADM) and Training and Recruitment of Personnel (TRP) are factors responsible for influencing information producers' behavior change in developed and developing countries. The research results indicate that the predisposition to adopt the RCA based or not on IPSAS depends on factors such as an administrative culture that adheres to the principles of NPM, the existence (or not) of quality public accounting, quality of management information systems (FMIS) and investments in training and recruitment policies compatible with the complexity of implementing RCA in the public sector.

The essay also suggests the existence of a gap between socioeconomic factors and political culture that influence the attitudes of users (citizens) in changing expectations about the informativeness of accounting systems in the public sector.

Regarding the CMGAI implementation barriers module, the international literature confirms that Organizational Characteristics (OC) and the Qualification of Accounting

Officers (QAO) are barriers present in both developed and developing countries. In addition, factors not included in the CMGAI (Lüder, 1992, 1994, 2000, 2002), such as Information Systems (IS), Implementation and Usage Costs (IUC), and the Existence of Local Quality Standards (LQS), notably in developed, act as barriers in implementation explicitly related to the adoption of IPSAS, given that usually these LQSS are already based on RCA.

The results discussed in this essay can contribute to future investigations on research gaps in the RCA implementation process in the public sector, especially for empirical studies on implementation barriers and in works that investigate the trade-offs involved in the cost-benefit relationship. of RCA implementation in the public sector for information producers and users.

REFERENCES

- Adhikari, P., & Gårseth-Nesbakk, L. (2016). Implementing public sector accruals in OECD member states: Major issues and challenges. *Accounting Forum*, 40(2), pp. 125–142. <https://doi.org/10.1016/j.accfor.2016.02.001>
- Adhikari, P., Jayasinghe, K., Soobaroyen, T., Wynne, A., Malagila, J., & Abdurafiu, N. (2021). Government accounting reforms in Sub-Saharan African countries and the selective ignorance of the epistemic community: A competing logics perspective. *Critical Perspectives on Accounting*, 78. <https://doi.org/10.1016/j.cpa.2020.102246>
- Adhikari, P., Kuruppu, C., & Matilal, S. (2013). Dissemination and institutionalization of public sector accounting reforms in less developed countries: A comparative study of the Nepalese and Sri Lankan central governments. *Accounting Forum*, 37(3). <https://doi.org/10.1016/j.accfor.2013.01.001>
- Azevedo, R. R., Lino, A. F., de Aquino, A. C. B., & Machado-Martins, T. C. P. (2020). Financial Management Information Systems and accounting policies retention in Brazil. *International Journal of Public Sector Management*, 33(2–3). <https://doi.org/10.1108/IJPSM-01-2019-0027>
- Becker, S. D., Jagalla, T., & Skærbæk, P. (2014). The translation of accrual accounting and budgeting and the reconfiguration of public sector accountants' identities. *Critical Perspectives on Accounting*, 25(4), 324–338. <https://doi.org/10.1016/j.cpa.2013.05.004>
- Borges, T.B, Mario, P. C. Cardoso, R.L, Aquino, A.C.B. (2010) Desmistificação do regime contábil de competência. *RAP — Rio de Janeiro* 44(4):877-901, Jul./ago.
- Carlin, T. M. (2005). Debating the Impact of Accrual Accounting and Reporting in the Public Sector. *Financial Accountability and Management*, 21(3), 309–336. <https://doi.org/10.1111/j.0267-4424.2005.00223.x>
- Christiaens, J., Reyniers, B., & Rollé, C. (2010). Impact of IPSAS on reforming governmental financial information systems: A comparative study. *International Review of Administrative Sciences*, 76(3), 537–554. <https://doi.org/10.1177/0020852310372449>
- Cuadrado-Ballesteros, B., Citro, F., & Bisogno, M. (2020). The role of public-sector accounting in controlling corruption: an assessment of Organization for Economic Co-operation and Development countries. *International Review of Administrative Sciences*, 86(4), 729–748. <https://doi.org/10.1177/0020852318819756>
- Efendi, R., Dewi, F. G., & Gamayuni, R. R. (2018). Usefulness analysis of accrual-based accounting information on local government financial statement: A qualitative study. *International Journal of Scientific and Technology Research*, 7(11).
- Eulner, V., & Waldbauer, G. (2018). New development: Cash versus accrual accounting for the public sector—EPSAS. *Public Money and Management*. <https://doi.org/10.1080/09540962.2018.1444560>

- Frintrup, M., Schmidhuber, L., & Hilgers, D. (2020). Towards accounting harmonization in Europe: a multinational survey among budget experts. *International Review of Administrative Sciences*. <https://doi.org/10.1177/0020852320915640>
- Goddard, A., Assad, M., Issa, S., Malagila, J., & Mkasiwa, T. A. (2016). The two publics and institutional theory – A study of public sector accounting in Tanzania. *Critical Perspectives on Accounting*, 40, 8–25. <https://doi.org/10.1016/j.cpa.2015.02.002>
- Gomes, P. S., Fernandes, M. J., & Carvalho, J. B. D. C. (2015). The International Harmonization Process of Public Sector Accounting in Portugal: The Perspective of Different Stakeholders. *International Journal of Public Administration*, 38(4). <https://doi.org/10.1080/01900692.2015.1001237>
- Harun, H., An, Y., & Kahar, A. (2013). Implementation and challenges of introducing NPM and accrual accounting in Indonesian local government. *Public Money & Management*, 33(5). <https://doi.org/10.1080/09540962.2013.817131>
- Helden, J., & Ouda, H. (2016) Public sector accounting in emerging economies. *Critical Perspectives on Accounting*. 41. Pages 1-7.
- Hyndman, N., & Connolly, C. (2011). Accruals accounting in the public sector: A road not always taken. *Management Accounting Research*, 22(1), 36–45. <https://doi.org/10.1016/j.mar.2010.10.008>
- Hyndman, N., Liguori, M., Meyer, R. E., Polzer, T., Rota, S., Seiwald, J., & Steccolini, I. (2018). Legitimizing change in the public sector: the introduction of (rational?) accounting practices in the United Kingdom, Italy and Austria. *Public Management Review*, 20(9), 1374–1399. <https://doi.org/10.1080/14719037.2017.1383781>
- International Public Sector Accounting Standards Board – IPSASB. (2016) *Transition to the Accrual Basis of Accounting: Guidance for Public Sector Entities- Study 14*.
- Kartiko, S. W., Rossieta, H., Martani, D., & Wahyuni, T. (2018). Measuring accrual based IPSAS implementation and its relationship to central government fiscal transparency. *BAR - Brazilian Administration Review*, 15(4). <https://doi.org/10.1590/1807-7692bar2018170119>
- Lüder, K. (1992) A Contingency Model of Governmental Accounting Innovations in The Political-Administrative Environment. *Research in Governmental and Nonprofit Accounting*, JAI Press Inc., Vol.7, p. 99-127.
- Lüder, K. (1994) The Contingency Model Reconsidered: Experiences from Italy, Japan and Spain. In: Buschor, E. Schedler, K. (eds) *Perspectives on Performance Measurement and Public Sector Accounting*, pp. 1-15.
- Lüder, K. (2000) National accounting, governmental accounting, and cross-country comparisons of governmental financial condition. *Financial Accountability and Management*, 16 (2), p. 117-128.
- Lüder, K. (2002) Research in comparative governmental accounting over the last decade: achievements and problems. In: Montesinos, V. & Vela, J.M. (eds), *Innovations in governmental accounting*, p.1-21. Kluwer Academic Publishers.
- Matias-Pereira, J. (2021). Theory applied to accounting: Evolution and perspectives. *Brazilian Journal of Development*, 10, 96651–96699. <https://doi.org/10.34117/bjdv7n10-127>
- Moretti, D. (2016), Accrual practices and reform experiences in OECD countries Results of the 2016 OECD Accruals Survey, *OECD Journal on Budgeting*, vol. 16/1, <https://doi.org/10.1787/budget-16-5jlv2jx2mtzq>.
- MnifSellami, Y., & Gafsi, Y. (2019). Institutional and Economic Factors Affecting the Adoption of International Public Sector Accounting Standards. *International Journal of Public Administration*, 42(2). <https://doi.org/10.1080/01900692.2017.1405444>

- 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(3), 272–285. <https://doi.org/10.1016/j.cpa.2012.12.001>
- Revorêdo, M. M. O. (2008). *Brasil rumo aos padrões internacionais de contabilidade para o setor público: uma análise sob a ótica do Financial Management Reform Process Modelo de Lüder*. [Dissertação de Mestrado, Universidade Estadual do Rio de Janeiro]
- Sasso, M., & Siqueira Varela, P. (2020). Doze anos de convergência das normas brasileiras às IPSAS: avanços e limites das pesquisas. *Revista Fipecafi de Contabilidade, Controladoria e Finanças*. 1(1).78-102.
- Vivian, B; Maroun, W. (2018). Progressive public administration and new public management in public sector accountancy: An international review. *Meditari Accountancy Research*, 26(1). <https://doi.org/10.1108/MEDAR-03-2017-0131>
- Wang, Z., & Miraj, J. (2018). Adoption of International Public Sector Accounting Standards in public sector of developing economies -analysis of five South Asian Countries. *Research in World Economy*, 9(2). <https://doi.org/10.5430/RWE.V9N2P44>

Reformas Contábeis do Setor Público à Luz do Modelo de Contingência de Inovações Contábeis Governamentais

RESUMO

Objetivo: Realizou uma discussão teórica sobre os resultados da literatura internacional relacionada as reformas contábeis do setor público à luz do Modelo de Contingência de Inovações Contábeis Governamentais de Lüder (MCICG).

Método: Trata-se de um ensaio teórico amparado pelas técnicas de revisão da literatura e por um modelo clássico de estudos comparativos de contabilidade governamental.

Originalidade/Relevância: Diferente dos trabalhos de revisão de literatura e sistemáticas realizadas sobre o tema, inovou-se ao adotar o MCICG como base teórica de sistematização e reflexão dos achados da literatura internacional.

Resultados: O ensaio defendeu que a implementação do regime accrual-basis é um processo de inovação contábil governamental. Identifica as principais lacunas teóricas e sistematiza e discute os principais achados da literatura internacional em quatro categorias principais: estímulos, expectativa dos usuários, prontidão dos produtores da informação e barreiras de implementação.

Contribuições Teóricas/Metodológicas: O trabalho propõe uma nova abordagem para análise do fenômeno implementação das reformas contábeis governamentais com base em normas internacionais baseadas no regime de accruals, amplia a visão sobre os fatores causadores e barreiras do processo, além de identificar lacunas da literatura relevantes que podem originar novos estudos.

Palavras-chave: Convergência Contábil. Regime de Competência. IPSAS. Inovação Contábil.


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