

# *SUMÁRIO DA LIÇÃO*

## **The determinants of implementation of public sector accounting reform**

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## **1. INTRODUCTION**

The present report, entitled “The determinants of implementation of Public Sector Accounting Reform”, is submitted in partial fulfillment of the requirements prescribed in N°. 5 of the Decreto-Lei nº 239/2007, 19 de junho.

The report's issue resides in two main factors. First, the author teaches Research Methodologies, a mandatory course in the Masters Program in Corporate Finance and Masters Program in Accounting at the University of Algarve. The course is designed to guide students in developing their Masters final projects. Through writing the report, the author has reviewed her teaching materials and sharpened her focus on providing methodologies for conducting research in accounting and finance. Second, the author's principal research interests are in public sector accounting. She is currently supervising two doctoral candidates in this field, has authored a book on public accounting (with two printings), and has published one scholarly paper in this domain and is preparing another. Writing this report has thus contributed to consolidating her expertise in this research area.

The purpose of this lesson is to present two papers, the first entitled “Constraints and stimuli in the implementation of public accounting reform: Systematic literature review and future research agenda” and the second entitled “The determinants in public sector accounting reform and the impacts on transparency. The Portuguese case” (see the reference below). This presentation has two major aims:

- Present a two-methodological approach (increasingly used in accounting and finance studies), namely: a systematic review of the literature described by Moher et al. (2009) and multivariate method of analysis - structural equation model. Although the second methodology is an interesting path to the development of management research, its application in the accounting and finance area is still novel.
- Provide an example (the case of Portugal) of research within the realm of international public accounting, in particular, investigation into the various factors influencing the adoption of International Public Sector Accounting Standards (IPSAS).

### **References:**

Liberato, M., Paiva, I. and Serrasqueiro, R. (2023). Constraints and stimuli in the implementation of public accounting reform: systematic literature review and future research

agenda, *Journal of Accounting and Organizational Change*. Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/JAOC-01-2022-0018>

Liberato, M., Paiva, I., Serrasqueiro, R. and Dias, A. (2024). The determinants in public sector accounting reform and the impacts on transparency. The Portuguese case. *Journal of Accounting and International Changes*. Article under revision (2nd revision).

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Apart from the Introduction, the present report is structured as follows. Section 2 presents the paper "Constraints and stimuli in the implementation of public accounting reform: systematic literature review and future research agenda". Section 3 presents the paper "The determinants in public sector accounting reform and the impacts on transparency". Section 4 concludes.

Lisboa, 15 de maio de 2024

Inna Choban de Sousa Paiva

## **2. PAPER 1: Constraints and stimuli in the implementation of public accounting reform: systematic literature review and future research agenda**

### **2.1. Abstract**

**Purpose:** This article discusses the adoption of IPSAS in the public sector in developed and developing countries, identifying the constraints and stimuli they represent in the implementation of the public accounting reform. It also presents future research proposals on the factors identified.

**Design/methodology/approach:** The methodology is based on a systematic review of the literature described by Moher et al. (2009). The final sample includes 90 academic papers published from 2000 to 2022.

**Findings:** The main findings indicate that there are differences between constraints and stimuli in the implementation of accounting standards between developed and developing countries. In terms of constraints, the main factor in developed countries is the lack of training, whereas in developing countries it is the limitation on financial resources. In addition, the results demonstrate that in developed countries the factors that most encourage the implementation of accounting standards are modernization and improvement of accounting, while in developing countries, encouragement comes mainly from external and internal pressure.

**Practical implications:** This study helps countries and institutions to learn from experience and better prepare for the accounting reforms of public administration that they will undertake. Managers of public organizations may be willing to make decisions in the adoption of IPSAS if they take into account the factors established herein.

**Social implications:** This study helps countries and institutions to learn from the experience, better prepare for the public administration accounting reforms that they will undertake, and add greater transparency in the accountability of public accounts to citizens.

**Originality/value:** In addition to previous studies, this study addresses a number of factors perceived by those involved in the implementation of IPSAS in developed and developing countries, and provides a robust research agenda to pursue during the coming years as there are several important unexplored questions that invite further research.

**Keywords:** Public accounting, Reform, Constraints, Stimuli, IPSAS, Public sector

**Paper type:** Systematic literature review

## 2.2. Introduction

In recent decades several public sector accounting reforms have been implemented around the world to improve the harmonization and comparability of public sector financial reporting (Steccolini, 2019; Gómez-Villegas et al., 2020; Sour, 2020). The International Public Sector Accounting Standards Board (IPSASB) has made great efforts to implement accrual-based accounting standards to improve public sector financial reporting worldwide by developing International Public Sector Accounting Standards (IPSAS) for use by governments and other public sector entities (Otavová, 2011; IPSASB, 2019). This reform has been strongly supported by international organizations such as the Organization for Economic Cooperation and Development (OECD), United Nations, World Bank, International Monetary Fund (IMF), and the European Commission (EC) (Adhikari et al., 2011; Grossi and Soverchia, 2011; Lokuwaduge, 2016). The COVID-19 pandemic demonstrates the importance of the public sector, its efficiency, and the effectiveness of the information produced, as well as the importance of supporting countries' economies and the living standards of citizens (Bracci et al, 2021; van Helden et al., 2021).

Most of the previous literature on the topic has focused on analyses of different institutional and economic factors and characteristics affecting the implementation of IPSAS (Gomes et al., 2019; Nakmahachalasint and Narktabtee, 2019; Sellami and Gafsi, 2019; Simpson et al., 2020). The main economic and political factors affecting the positive implementation of IPSAS are related to the political system (Archambault and Archambault, 2009), external economic openness (Alon and Dwyer, 2014), and international pressures (Lokuwaduge and Silva, 2020). Negative influences that have been identified include the complexity of standards (Inkina, 2019; Otrusino and Pastuszkova, 2013), the legal system, and the

political environment (van Helden and Reichard, 2018; Ademola et al., 2020). Some of these studies addressed developed countries and others observed developing and emerging economies, demonstrating great heterogeneity of factors (Sellami and Gafsi, 2019). This is not surprising considering the economic, political, and cultural characteristics of the different countries implementing IPSAS (Syarifuddin, 2018; Mattei et al., 2020; Polzer et al., 2021).

The adoption of IPSAS is a relatively new field of research in the public accounting literature. Although several reviews have been published over the last few years, they mainly address broad issues without investigating specificities in the IPSAS domain. Using the concept of new public management (NPM) and institutional theory, Rajib and Hoque (2016) provide a review of the public sector accounting research from 1992 to 2015 identifying different aspects of standards and discussing the implementation scenario of public accounting standards. Iacuzzi (2021) analyzes the financial indicators for local government based on 79 papers, develops a critical reading of the literature, and offers suggestions for future research.

A literature review on the harmonization of public sector accounting based on IPSAS was conducted by Schmidhuber, Hilgers, and Hofmann (2020). The authors focused on the antecedents of IPSAS adoption and outcomes of its adoption, providing a discussion about the gaps in the research. Polzer et al. (2021) developed a structured literature review of the adoption of IPSAS in emerging economies and low-income countries. Based on the diffusion theory, the findings offered a holistic understanding of the stages of IPSAS reforms and factors that influence the progression of reforms in the context of emerging economies. Moreover, van Helden et al. (2021) reviewed research on public-sector accounting in emerging economies. They concluded that accrual accounting is the main topic and that the majority of the research is dominated by accounting reforms inspired by the concept of new public management, highlighting performance management and budgeting. Finally, based on NPM theory, Grossi and Argento (2022) analyzed changes in the public sector arising from the implementation of public governance reforms. They reported that the practices of public sector accounting have changed, as reflected in the new types of accountability, performance management, and budgeting and reporting information.

Contrary to previous literature reviews that examine a limited number of studies (Iacuzzi, 2021), are not systematic (Rajib and Hoque, 2016), focus on the public governance development (Grossi and Argento, 2022), and analyze only emerging markets (e.g., Polzer et al., 2021; van Helden et al., 2021), this study systematically reviews a large number of studies

that were published from 2000 to 2022 with a specific emphasis on stimuli and constraints that have influenced the adoption of IPSAS. The originality is that the present review covers a wide timeline, includes the recently published empirical studies, and addresses the implementation of the IPSAS in developed and developing countries. In light of the IPSAS adoption in developed and developing countries, the research question of this study is the following:

*RQ: What constraints and stimuli have been identified in the implementation of public accounting reforms, and what are their differences between developed and developing contexts?*

Our analysis of the 90 studies in our sample provides in-depth insights related to major topics as well as numerous avenues for future research. Combining central ideas of institutional theory and NPM, the contribution of this study is twofold: (i) understanding the constraints and stimulus issues of adoption of IPSAS in the public sector and discussing their differences between developed and developing contexts; (ii) mapping the gaps in the literature and suggesting research opportunities in this subset for the coming years.

The results suggest that there are differences between constraints and stimuli in the implementation of accounting standards between developed and developing countries. In terms of constraints, factors that most differentiate developed countries from developing ones are that the former point to the lack of training, while developing countries point more to limited financial resources. In addition, our results demonstrate that there are constraints that are identified in both developed and developing countries, such as the lack of accounting knowledge and skills and limitations of software and information technologies. This can be explained by the implementation of accounting reforms requiring more in-depth accounting and investment in new information technologies (Brusca and Martínez, 2016), which are hurdles to public administrations having very specific characteristics including the history of using cash accounting and forward-looking reports. Such specificities create a resistance to change that should not be overlooked (Brito and Jorge, 2021; Shehadeh, 2022).

Concerning stimuli, our results demonstrate that in developed countries the factors that most encourage the implementation of accounting standards are modernization or improvement and accounting experience, while in developing countries encouragement comes mainly from external and internal pressure. Developed countries are in a more advanced process of

implementing accounting reforms while developing countries are almost forced by external and internal pressures to adopt the reforms, especially those stemming from the financing of international organizations (Tawiah, 2022).

Another valuable contribution of this paper is to provide a robust research agenda to follow during the coming years as there are several important unexplored questions that invite further research with theoretical and practical implications. Some of the most promising ones include a detailed analysis of: 1) the conditions in developing countries experiencing the lack of technical support as an obstacle to implementing an accounting system; 2) how the ambiguity and lack of harmonization that occur between budget accounting and accrual accounting in developed countries demotivate the implementation of IPSAS; and 3) whether external pressures from international organizations have actually led to increased quality of accounting information in the developed and developing countries.

The paper is structured as follows. The next section provides a brief theoretical note on the implementation of accounting reforms in the public sector. Then, the methodology is explained and finally the results are presented as the basis for discussions of the findings and opportunities for future research.

### **2.3. Literature review**

#### ***The evolution of international public accounting***

##### *Rise of IPSAS*

Formed in 1984, the Governmental Accounting Standards Board (GASB) determined a set of objectives for financial reporting with a strong emphasis on accountability and usefulness of information for decision-making purposes complemented by the possibility of incorporating non-financial measures of service efforts and accomplishments in financial reports. Currently, mindful of the importance of legal and budgetary compliance, the GASB still requires financial fund statements (Chan, 2009).

The International Federation of Accountants (IFAC) created the Public Sector Committee (PSC), which is the origin of the IPSASB. The IPSASB has issued 42 standards to date with the 130-plus countries across the globe that have adopted IPSAS (IPSASB, 2021). IPSAS

aims to improve the quality of general-purpose financial reporting, increase transparency and accountability in the public sector, and improve the comparability of financial statements worldwide.

The need for greater transparency and accountability in government financial reporting was heightened by the global financial crisis, which reduced the resources available to governments. In some instances the information contained in cash-based financial statements had been insufficient for countries to predict and prevent sovereign liquidity crises (ACCA, 2017). These factors have encouraged countries around the world to make statements concerning the adoption of standards established on either cash basis IPSAS or accrual basis IPSAS, with various deadlines.

Currently, the IPSASB continues to work on new accounting standards, as is the case of the standard on fixed assets to be issued in the first quarter of 2023, which replaces IPSAS 17. The new standard adds public sector guidance on property and infrastructure assets aligning with the new measurement principles. The IPSASB has also developed three public sector-specific sustainability reporting projects (IPSASB, 2022).

The EC and Eurostat initiated a European Public Sector Accounting Standards (EPSAS) project in 2013 to develop a single accrual accounting system that could potentially become mandatory for all European Union (EU) member states. Although it has been concluded that the already existing IPSAS are not suitable for direct implementation in the EU, they could form an adaptable basis for future EPSAS. Even though EPSAS was seen as a necessary tool for further financial and budgetary integration in the EU, the reality shows that the implementation of IPSAS itself and other public accounting reforms so far has encountered obstacles and benefited from incentives that need to be explored.

#### *Public accounting reform in developed and developing countries*

Developed countries have used different approaches in the adoption of IPSAS and are in different stages of adoption, some of which have just begun, while other countries have completed the process. The Association of Chartered Certified Accountants (ACCA) states that despite the intention of the various developed countries to adopt IPSAS, few have completed the process successfully and without problems. Adoption and full compliance with IPSAS standards have been difficult for many countries, and efforts remain as what can best be described as a “work in progress”.

Despite the numerous benefits of IPSAS, its adoption is still not consensual. For example, there are still countries that even though having the resources and infrastructure needed for implementation, such as Finland and Germany, have refused to adopt IPSAS due to criticism of a fair assessment and arbitrary estimation (Tawiah, 2022). None of the countries in the EU have directly adopted IPSAS (Brusca et al., 2016). This reluctance stems in part from the fact that several studies show that IPSAS' objectives of transparency, accountability, and decision-making are, in practice, below expectations. Yapa and Ukwatte (2015) report that the implementation of IPSAS does not really promote transparency and accountability, as IPSAS promoters have portrayed it. Similarly, Grossi and Steccolini (2015) claim that the adoption of IPSAS may not guarantee the expected disclosure and therefore not improve the quality of governance. Some scholars also argue that the prescriptions of IPSAS are vague and provide no detailed guidance (Agasisti et al., 2015; Bakre et al., 2017; Oulasvirta, 2014; Schmidhuber et al., 2020) and that this can lead to the abuse of discretionary measures for the benefit of politicians and government officials.

The institutional context in developing countries may be largely unsuited for the introduction of IPSAS. IPSAS measures pressured by international donors may be hitting donor targets, but they remain superficial, or they may even be detrimental to development (Polzer et al., 2019). Unlike developed countries, developing countries are characterized by weak regulations and low financial transparency (Fan et al., 2009). They are therefore forced by international organizations such as the World Bank and IMF to adopt high-quality international standards such as IPSAS to combat corruption (Allen, 2009; Brusca and Martínez, 2016; Rossi et al., 2016; Tawiah, 2021), but most countries are slow to adopt these standards. In fact, developing countries are presented as “adopters of IPSAS”, but their circumstances may differ widely, from governments that have expressed only the intention to adopt the standards to those at various stages of the implementation process.

Indonesia started its public sector reform program in 1999, and have the central government consolidation accounts received an unreserved audit opinion for 2016. Nevertheless, local governments continue to prepare their accounts on a modified cash basis. Vietnam is lagging behind and is still in the early stages of assessing the adoption of IPSAS standards, although the IFAC reported as early as 2007 that the country was in the process of moving to IPSAS (Kolesnikov-Jessop, 2018). Tanzania, on the other hand, is a success story in East Africa. The central government has begun implementing global rules by adopting cash-based IPSAS

financial statements from the same date and began introducing IPSAS statements of competence in 2012, having improved its financial reporting documentation as a result of the implementation of IPSAS (Mosoba, 2017).

### ***Related theories***

Over the years several theories have been used to study the performance of accounting reforms in public administrations, the use of accrual accounting, and more recently the adoption of IPSAS. The literature on the implementation of IPSAS commonly focus around two predominant theories: NPM theory, as evidenced by the works of Hyndman and Lapsley (2016) and Bracci et al. (2021), and institutional theory, supported by Jacobs (2012) and Van Helden et al. (2021). In addition, Van Helden et al. (2021) conducted a comprehensive literature review, highlighting the prevailing influence of institutional theory in public sector accounting research over the past decade.

NPM theory is an approach that seeks to build an administration that implements flexibility, transparency, decentralization, the market orientation of public services, and privatization. Focussing on efficiency and effectiveness (Biswas, 2020; Bracci et al, 2021), it is a paradigm shift away from traditional public administration, leading to higher demands for reporting and transparency (Grossi and Argento, 2022).

Multiple studies have utilized NPM theory to illustrate the implementation of accounting reforms within public administrations, as demonstrated by van Helden and Reichard (2018), Anessi-Pessina et al. (2016), and Brusca et al. (2016), among others, across diverse contexts. Focusing specifically on developed countries, van Helden and Reichard (2018) conducted an investigation into the shift from cash budgeting to accrual budgeting in central governments. Their findings indicate that the transformation process in all four cases was influenced by various contextual factors, including cash-accounting legacies and prior NPM reforms. Based on the NPM theory, Brusca, Gómez-Villegas, and Montesinos (2016) argue that the adoption of IPSAS in Europe has been influenced by the rescue package, which aims to enhance trust, confidence, and comparability of financial institutions within the public sector. Studies conducted within the developmental context, drawing on the NPM theory, have consistently demonstrated improvements in public sector reporting systems as a result of implementing new accounting reforms (Christiaens et al., 2015; Sellami and Gafsi, 2019; Polzer et al., 2021; Tawiah, 2021).

Institutional theory posits that political, educational, cultural, and economic systems can exert pressure on economic units through three mechanisms of institutionalization: coercive isomorphism, normative pressures, and mimetic processes (DiMaggio and Powell, 1983). This theory emerged in the 1970s, notably through the pioneering work of Meyer and Rowan (1977), who argued that organizations seek legitimacy and, consequently, strive to adapt to their environment. Numerous studies have employed institutional theory to elucidate the adoption of public sector accounting reforms in both developed and developing countries. Notable examples include the works of ter Bogt and van Helden (2000), Harun and Kamase (2012), Hidayah and Zarkasyi (2017), and Jayasinghe et al. (2021).

In their study, ter Bogt and van Helden (2000) examined the effects of public sector accounting on the behaviors of managers and politicians in local governments in the Netherlands. The findings of their research demonstrate that while politics and top management have the ability to implement new accounting systems and procedures, the mere introduction of such measures does not guarantee their adoption by organizational participants. The authors propose that both external and internal pressures play a role in shaping the organizational culture surrounding public sector accounting reforms.

In the context of developing countries, several studies have explored the influence of coercive and normative pressures from institutional theory, particularly regarding how international organizations exert influence to implement IPSAS. Notably, Jayasinghe et al. (2021) contend that enhancing public accounting and transparency in Sub-Saharan African (SSA) countries can be achieved by effectively applying existing regulations and accounting systems. They argue against a purely coercive approach that seeks to replace these systems with externally imposed government accounting reforms. Both Hassan (2015) and Harun and Kamase (2012) emphasize the coercive pressures exerted by international lenders in the Indonesian context to facilitate the adoption of accrual-based accounting practices in line with IPSAS. Harun and Kamase (2012) further illustrate that the instrumental use of accounting as a political tool for control undermines its intended purpose of enhancing performance and efficiency. They argue that existing power structures can hinder the effectiveness of public sector reforms.

Furthermore, Hidayah and Zarkasyi (2017) conducted a study utilizing mimetic institutional theory to investigate the influence of human resource management competency and cultural factors on the implementation of accrual accounting and the resulting quality of accounting information in the Indonesian context. Moreover, Ada and Christiaens (2018) contend that

international organizations like IPSASB serve as normative forces, exerting influence for the adoption of IPSAS in the Turkish context. In addition, Rajib et al. (2019), drawing upon the concepts of new institutionalism and entrepreneurship logic, observed that the disparities between Bangladesh and other emerging economies have diminished due to the escalating potency of institutional pressures. However, they caution that the adoption of cash basis IPSAS may still be more of a rhetorical commitment than a practical reality.

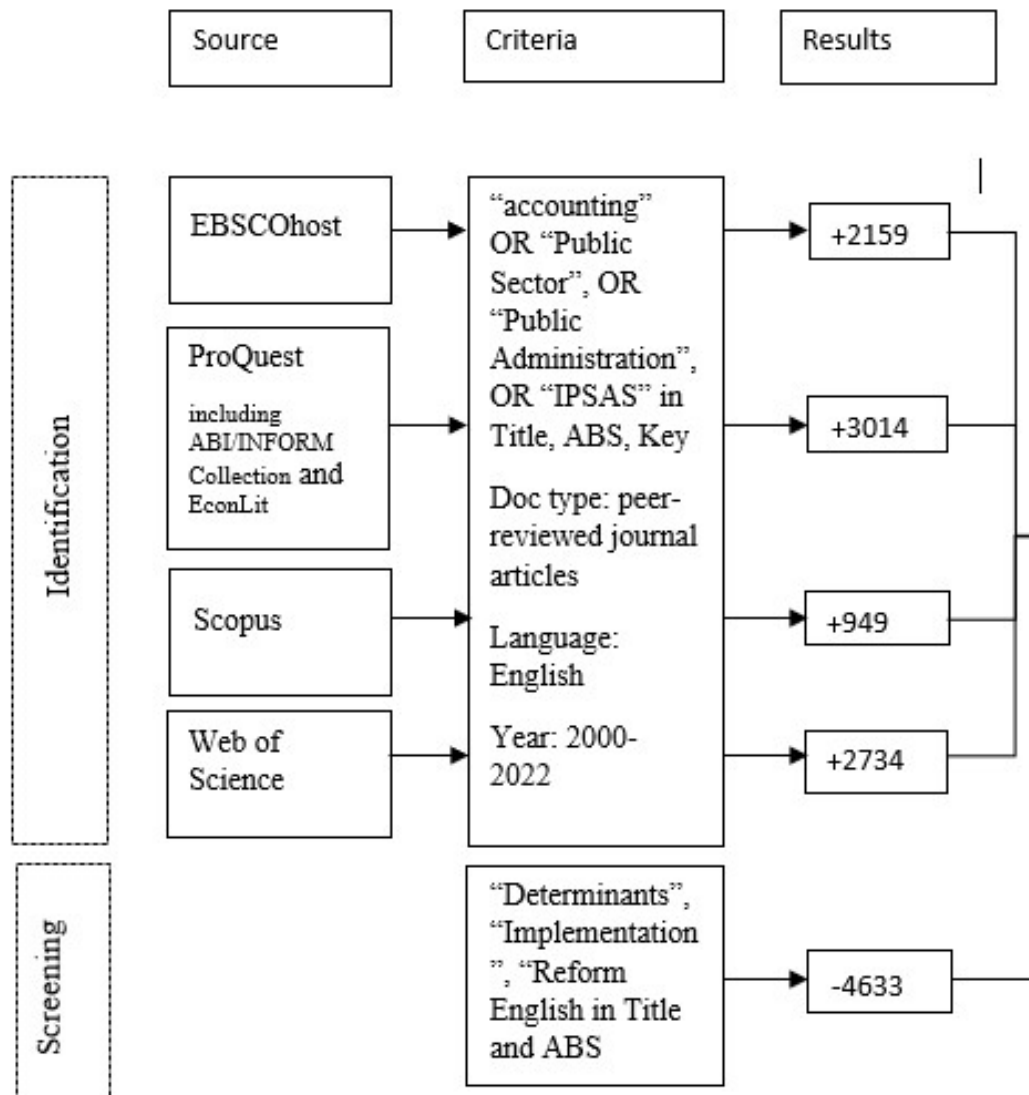
One approach to addressing the challenges associated with public accounting reforms involves standardization and the pressure exerted by legal organizations for the adoption of IPSAS (Jacobs, 2012; Van Helden et al., 2021). This issue is particularly prominent in developing countries, where there is additional pressure from international donors and organizations (Polzer et al., 2021). It is important to note that, within the framework of institutional theory, the management of public institutions is influenced by factors such as legitimacy, routines, scripts, and other cognitive phenomena, all of which vary across different contexts. Subsequent research has observed that many governments do not fully embrace IPSAS and have turned to institutional theory to explain the adoption of public accounting reforms (Ada and Christiaens, 2018; Rajib et al., 2019; Jayasinghe et al., 2021).

## **2.4. Methodology**

### ***Research protocol***

The purpose of this study is to identify the factors that both constrain and facilitate the implementation of IPSAS, and discuss their differences between developed and developing countries. We performed a systematic review of the literature published from 2000 to 2022 using a guideline based on the preferred reporting item for systematic review and meta-analysis (PRISMA) flow diagram (Moher et al., 2009). This method has been used in previous literature reviews in the field of public sector governance (Agostino et al., 2022; Dekker et al., 2020; Herda et al., 2022; Kim et al., 2019; Mu and Wang, 2020; Vale et al., 2022).

**Figure 1. PRISMA Flow Diagram**



Source: Based on Moher et al. (2009)

*Identification of studies.* First, to identify articles dealing with public sector accounting reform we use the terms that we consider most relevant to our study, making it possible to select from the three strands of accounting the topics addressing the accounting and stimulating factors underlying the reforms. We searched the databases Web of Science, Scopus, EBSCOhost, and ProQuest, including ABI/INFORM Collection and EconLit, and limited the results to peer-reviewed journal articles published in English. After removing duplicates, 6,044 records remained.

*Screening.* The relevance of search hits was assessed. We performed an initial screening of the title and abstract of each article by applying the keywords “*Determinants*”, “*Implementation*”, “*Reform*”, “*Constraints*”, and “*Stimuli*”. This further reduced the sample to 1,411.

*Eligibility.* During the eligibility checks, we reduced our data set to 624 articles after analyzing the abstracts of each one and checking if the paper focused on accounting implementation in the public sector.

*Included studies.* Upon reading the full texts, we excluded articles that did not focus on our research topic. This led to the exclusion of audit papers and ERP implementation, for example, including only those referring to the implementation of financial accounting reforms in the public sector. This left 90 articles.

### ***Descriptive analysis***

#### *Sources and timeline of the articles*

Table 1 shows the distribution of the final list of papers by journal title and according to developed, developing, and multi-country studies. The most informative journal in our sample is *Financial Accountability and Management*, with 8 studies. The vast majority of articles were published in high-impact journals on the SCImago Journal and Country Rank 2019.

**Table 1: Distribution of papers by journal**

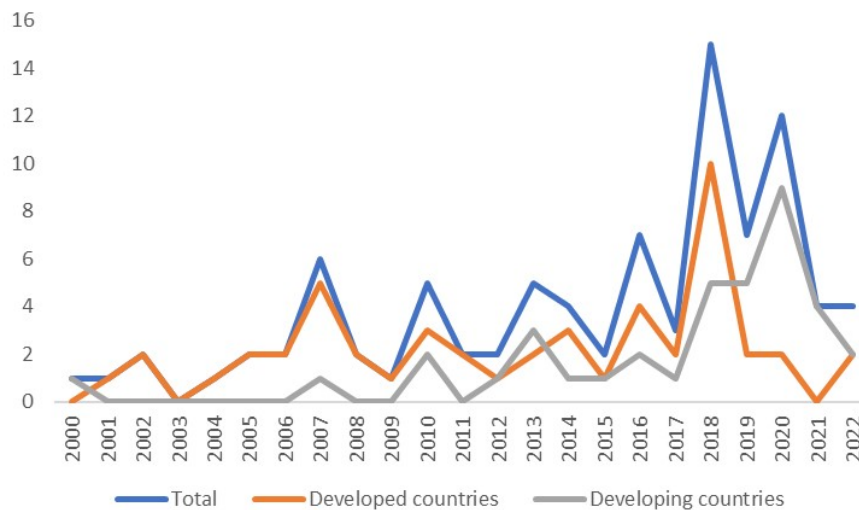
<b>Journal</b>	<b>Total</b>	<b>Developed Countries</b>	<b>Developing countries</b>	<b>Multiple countries</b>
Financial Accountability and Management	8	5	3	0
Public Money and Management	6	3	2	1
International Journal of Public Sector Management	4	1	3	0
Accounting, Auditing and Accountability Journal	3	3	0	0
International Journal of Public Administration	3	2	1	0
Journal of Accounting and Organizational Change	3	2	1	0
Journal of Accounting in Emerging Economies	3	0	3	0
Journal of Public Budgeting, Accounting, and Financial Management	3	3	0	0

Journal	Total	Developed Countries	Developing countries	Multiple countries
Innovar	2	2	0	0
International Review of Administrative Sciences	2	0	1	1
OECD Journal on Budgeting	2	2	0	0
Research in Accounting in Emerging Economies	2	0	2	0
Others (1 article each)	49	28	21	0
<b>Total</b>	<b>90</b>	<b>51</b>	<b>37</b>	<b>2</b>

Source: *Elaborated by authors*

Research on the implementation of accounting reforms in the public sector has increased over the years although not in a steady trend (see Figure 2). With the COVID-19 pandemic there was a fall in the number of publications pertaining to our topic.

**Figure 2. Number of publications by year**



### *Locus of studies*

The country analysis (Table 2) shows that there are 9 studies (5.6%) from Indonesia, 7 from Italy (4.4%), and 6 from the United Kingdom (3.8%), while Portugal, Brazil, Spain, and Sri Lanka have 5 studies each. The remaining articles include another 22 countries. There is a degree of empirical breadth of research in the sample, with accounts from developed and developing countries.

**Table 2: Locus of studies**

Countries	Number of articles	%
Indonesia	9	5.6%
Italy	7	4.4%
Portugal	6	3.8%
United Kingdom	6	3.8%
Brazil	5	3.1%
Spain	5	3.1%
Sri Lanka	5	3.1%
Belgium	4	2.5%
Colombia	4	2.5%
Czech Republic	4	2.5%
Greece	4	2.5%
Malta	4	2.5%
Costa Rica	3	1.9%
Estonia	3	1.9%
Hungary	3	1.9%
India	3	1.9%
Nepal	3	1.9%
Peru	3	1.9%
Argentina	2	1.3%
Australia	2	1.3%
Austria	2	1.3%
Bolivia	2	1.3%
Chile	2	1.3%
Croatia	2	1.3%
El Salvador	2	1.3%
Germany	2	1.3%
Ghana	2	1.3%
Other single countries	31	19.4%

*Source: Elaborated by authors*

### *Research methodologies*

In terms of research methods, Table 3 shows that qualitative methods have the greatest predominance (65.6%) in both developed and developing countries. Most qualitative studies (22.2%) use survey methodology (Carvalho et al., 2012; Frank and Gianakis, 2010), followed by interviews (17.8%), and 20.2% of the papers analyze data collected through case studies

(Lassou et al., 2018; Timoshenko, 2008; Tóth, 2020) in the developed and developing countries.

Quantitative studies represent 27.8% of all studies, with questionnaire and survey data collection predominating (21.1%). In this methodology, most of the studies have been conducted in developed countries.

**Table 3: Research methodologies**

Methodology	Total	%	Developed countries	Developing countries	Multiple countries
<b>Qualitative</b>	<b>59</b>	<b>65.6%</b>	<b>31</b>	<b>27</b>	<b>1</b>
Content analysis	7	7.8%	5	2	0
Descriptive	15	16.7%	10	5	0
Case study	20	22.2%	11	9	0
Interviews	16	17.8%	4	11	1
Historical analysis	1	1.1%	1	0	0
<b>Quantitative</b>	<b>25</b>	<b>27.8%</b>	<b>16</b>	<b>8</b>	<b>1</b>
Survey/Questionnaire	19	21.1%	12	6	1
Mixed Quantitative	3	3.3%	1	2	0
Compliance index	3	3.3%	3	0	0
<b>Multiple</b>	<b>6</b>	<b>6.7%</b>	<b>4</b>	<b>2</b>	<b>0</b>
	<b>90</b>		<b>51</b>	<b>37</b>	<b>2</b>

*Source: Elaborated by authors*

### *Theories on the analytical framework*

Table 4 reports the theories used in the studies analyzed. New public management and institutional theory are the prevailing theories in studies in both developed countries (Agasisti et al., 2018; Hyndman and Connolly, 2011; Inkina, 2019) and developing countries (McLeod and Harun, 2014). In addition, many studies used multiple approaches that combine two (Caruana, 2017; Cohen and Karatzimas, 2018) or more theories (Carvalho et al., 2007), which is also the approach followed in studies from developed countries (Amirkhani et al., 2019; Fahlevi, 2016). Finally, contingency theory is also used in the studies realized in developed countries.

**Table 4: Theories on the analytical framework**

Theory	Total	%	Developed countries	Developing countries	Multiple countries
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Not specified	26	28.9%	12	14	0
New public management	19	21.1%	15	3	1
Multiple approaches	15	16.7%	9	6	0
Institutional theory	11	12.2%	6	4	1
Contingency theory	3	3.3%	3	0	0
Neo-institutional theory	4	4.4%	1	3	0
Others	12	13.3%	5	7	0
	<b>90</b>		<b>51</b>	<b>37</b>	<b>2</b>

Source: Elaborated by authors

## 2.5. Findings

### *Constraints for public accounting reforms implementation*

Table 5 shows the main results of the study, with the distribution of the papers by constraint topics, considering the developed, developing, and multiple countries.

**Table 5: Constraints for public accounting reform implementation**

Constraints	Total	Developed countries	Developing countries	Multiple countries
<b>Exogenous</b>	<b>83</b>	<b>48</b>	<b>32</b>	<b>3</b>
Political environment and commitment	31	16	13	2
Complexity of standards	22	13	8	1
Legal framework	18	10	8	0
Lack of visible benefits	12	9	3	0
<b>Endogenous</b>	<b>177</b>	<b>95</b>	<b>72</b>	<b>10</b>
Lack of accounting knowledge and skills	60	32	26	2
Limitations of information technologies	32	17	13	2
Lack of training	25	14	9	2
Limited financial resources	21	8	11	2
Lack of human resources	14	6	7	1
Absence of internal control	13	8	4	1
Relationship between systems	12	10	2	0

Note: The sum of the articles is greater than the total number of articles analyzed. Each article can mention more than one constraint and/or more than one country, and each country is analyzed by more than one article.

Source: Elaborated by authors

The exogenous factors about the implementation constraints of public accounting reforms that we highlight are the political environment and commitment, the complexity of standards, the legal framework, and the lack of visible benefits.

*Political environment and commitment.* In developed countries, the change of governments and the different priorities of government departments are not conducive to smoothly functioning reforms (Nakmahachalasint and Narktabtee, 2019; Reginato et al., 2010; van Helden and Reichard, 2018). Previous studies demonstrated that there is a lack of governmental commitment and involvement (Christiaens, 2001; Fuentes and Borreguero, 2018; Gomes et al., 2015; Venieris and Cohen, 2004). For instance, van Helden and Reichard (2018) investigate why central governments in European countries have moved to accruals budgeting while others keep using cash budgeting, and find that stakeholders in government show more reluctance when deciding on a budgeting concept than a financial reporting change, which is perceived as being less essential. Based on the local government, Reginato et al. (2010) show that the political environment and pressures discourage the introduction of new accounting tools in Italy.

There is also evidence that in developing countries the political and administrative culture can be one of the main obstacles to reforms, as politicians do not consider the management innovations introduced by reforms as a priority in the agenda (Ahmad and Nasserredine, 2019; Azevedo et al., 2020; Brusca and Martínez, 2016; Gómez-Villegas and Julve, 2012; Jani et al., 2020; Rajib et al., 2019; Shehadeh, 2022; Yuliati et al., 2019). Highly complex, multi-level government structures observed in developing countries such as Indonesia and Iran can also have a negative impact on accounting implementation and complicate the transition process, and sometimes institutions are not flexible enough to adapt to the necessary changes (Gómez-Villegas and Julve, 2012; Lokuwaduge and Silva, 2020). In short, a cultural shift is needed to move from a public administration based on procedures and compliance with laws to one that focuses on a comprehensive quality government environment, analysis of results, efforts, and performance (Ahmad and Nasserredine, 2019; Brusca et al., 2016).

*Complexity of standards.* Constraints regarding the complexity of standards were mainly observed in developed countries (Fuentes and Borreguero, 2018; Reginato et al., 2010). Otrusanova and Pastuszkova (2013) and find a lack of clear methodology for procedures of the IPSAS adoption. In parallel studies, Ada and Christiaens (2017) find evidence that there is a lack of guidance and templates for policies or procedures that should be adopted by the entity. The complexity stems from the fact that the standards are not specific enough to address public sector issues (Brusca and Martínez, 2016) and that there are difficulties in interpreting some of the technical criteria for implementing the standards (Elmezughi and

Wakil, 2018; Hladika, 2022; Hyndman, 2016; Jorge et al., 2007), with uncertainties and doubts surrounding accrual accounting (Bruno and Lapsley, 2018; Santis et al., 2019).

In developing countries, previous literature suggests that the lack of conceptual definitions creates difficulty in interpreting and implementing new accounting standards (Adhikari et al., 2019; Ahmad and Nasserredine, 2019; Al-otoom and Alrabba, 2022; Brusca et al., 2016; Mattei et al., 2020; Shehadeh, 2022). There is also evidence that the importance of translation needs to be emphasized, recognizing that good translation and interpretation are also critical to success in developing countries (Mohammadrezaei et al., 2013; Ada and Christiaens, 2018).

*Legal framework.* The legal framework has proved to be a negative factor in the implementation of accounting in several developed and developing countries. For example, Jones and Caruana (2014) found a reluctance to change the financial legislation in Malta, as did Caruana (2017) in Italy, where legal instruments exist but are not properly interpreted. Considering the institutional theory, some studies found that EU countries adopted a type of corrective implementation by the imposition of European legislation but the normative form and even mimesis did not follow the change of processes (Ciurea, 2018; Nasi and Steccolini, 2008; Panozzo, 2000).

In developing countries, studies highlight that the legal systems create conflicts and barriers to implementing reforms at the level of public accounting (Adhikari et al., 2013; Brito and Jorge, 2021; Harun et al., 2021; Mbelwa et al., 2018; Mohammadrezaei et al., 2013; Nagirikandalage and Binsardi, 2015; Thanh et al., 2020). Nyahunal and Doorasamy (2021) found that weak environmental legislation spares them from developing and applying environmental management accounting systems within local government.

*Lack of visible benefits.* One of the factors identified in developed countries is the lack of visibility of the benefits from adopting of IPSAS (Agasisti et al., 2018) complemented by the lack of incentives to participate in the change process (Bruno and Lapsley, 2018; Connolly and Hyndman, 2006; Jorge et al., 2007; Nakmahachalasint and Narktabtee, 2019; Reginato et al., 2010). In addition, some studies emphasize lack of penalties for those institutions that do not apply new reforms (Ada and Christiaens, 2017; Christiaens and van Peteghem, 2007; Venieris and Cohen, 2004).

In developing countries, empirical studies report the lack of penalties (Harun and Kamase, 2012; Sulu-Gambari et al., 2018) and also the absence of performance-based rewards, both of which have largely eroded the motivation of public administrators to engage in the change process and get acquainted with new ideas (Rajib et al., 2019).

Regarding implementation constraints of public accounting reforms, the endogenous factors that can be highlighted are the lack of accounting knowledge and skills, limitations of information technologies, lack of training, limited financial resources, lack of human resources, absence of auditing, and the relationship between systems.

*Lack of accounting knowledge and skills.* Lack of accounting knowledge and skills was the most frequently cited barrier to implementing accounting reforms in the studies observed in developed (Antipova and Bourmistrov, 2013; Christensen, 2002; Scheers et al., 2006) and developing countries (Adhikari and Mellembvik, 2010; Rajib et al., 2019). In developed countries, several studies have analyzed the influence of a lack of previous experience or insufficient relevant expertise on accounting reform (Ding, 2000; Otrusínová, 2016; Santis et al., 2019). Other studies cite this lack of resilience and change resistance as critical factors to be considered (Agasisti et al., 2018; Arnaboldi and Lapsley, 2009; Christiaens and van Peteghem, 2007; Gomes et al., 2015; Kowalczyk and Caruana, 2022; Tikik, 2010).

In developing countries, authorities and regulators show resistance to adopting change, as the majority of public sector accountants are not trained and qualified for the implementation of the accrual-based IPSAS. Previous studies demonstrated that neither workers nor management have adequate financial and human resources for the implementation of the accrual-based IPSAS, which leads to the top management withholding commitment to the implementation of the accrual-based IPSAS (Ahmad and Nasserredine, 2019; Azevedo et al., 2020; Harun, 2007; Ismaili and Ismajli, 2020; Tetteh et al., 2021; Thanh et al., 2020; Yuliati et al., 2019). The resistance to change is one of the barriers (Al-otoom and Alrabba, 2022; Brito and Jorge, 2021; Tetteh et al., 2021) because the age of senior managers has a negative impact on accounting implementation (Neves and Gómez-Villegas, 2020) for fear of losing control over the budget authority (Adhikari et al., 2019).

*Limitations of information technologies (IT).* Lack of technical support as an obstacle to implementing an accounting system is notable, especially the lack of an IT system (Bruno and Lapsley, 2018; Gigli et al., 2018; Hladika, 2022; Jorge et al., 2019; Lutilsky et al., 2016;

Scheers et al., 2006; Venieris and Cohen, 2004) in both developed and developing countries. For instance, Caruana (2017) found that there was an insufficient allocation of funds for the acquisition of the new IT system, resulting in a strong barrier to the implementation of the accounting reform in Malta. In the same line, several authors argue that the implementation requires changes in too many systems to accommodate the accounting process, as this implementation sometimes creates an unwanted dependence on a commercial software provider (Cohen et al., 2007; Klimavičienė and Mykolaitienė, 2007; Ridder et al., 2005).

Also in developing countries, technological weakness is one of the major factors affecting IPSAS implementation (Ademola et al., 2020; Ahmad and Nasserredine, 2019; Harun et al., 2013; Ismaili et al., 2021; Mbelwa et al., 2018; Yahya et al., 2018; Yuliati et al., 2019), which makes process fairly difficult. Brusca et al. (2016) and Gómez-Villegas et al. (2020) show a greater problem related to information technologies, demonstrating that the new financial management information system was too complex, too expensive, and required too many system changes.

*Lack of training.* Several studies point out that in developed countries one of the difficulties in adopting accrual is the lack of training programs (Carvalho et al., 2007; Connolly and Hyndman, 2006; Elmezughi and Wakil, 2018; Fuentes and Borreguero, 2018; Nakmahachalasint and Narktabtee, 2019; Pina and Torres, 2002; Tóth, 2020). In developing countries, Rajib et al. (2019) found that in Bangladesh the lack of education and training opportunities for government accountants largely eroded the motivation of public administrators to engage in the change process and become acquainted with new ideas. The same problem occurs in other countries, where education and training are largely insufficient (Adhikari and Mellembvik, 2010; Ahmad and Nasserredine, 2019; Brito and Jorge, 2021; Brusca et al., 2016; Simpson et al., 2020; Tickell, 2010).

*Limited financial resources.* In developed countries, the processes to implement accounting reforms are very costly and involve many expenses, including staff training, hardware, and software acquisition (Klimavičienė and Mykolaitienė, 2007; Lentner et al., 2020; Nakmahachalasint and Narktabtee, 2019; Ridder et al., 2005). For example, in a recent study about the constraints for the implementation of an accrual basis in public sector accounting in Croatia, Hladika (2022) found that public sector managers rated financial resources as the greatest constraint. The main reasons reported are the expected significant investments in software, additional education, and employee training.

However, the limited financial resource constraint is mentioned much more in studies conducted in developing countries (Ademola et al., 2020; Ahmad and Nasserredine, 2019; Azevedo et al., 2020). In other words, developing countries have major difficulties in getting adequate infrastructure and the human and financial resources to apply the standards (Brusca et al., 2016; Harun et al., 2021; Shehadeh, 2022; Thanh et al., 2020).

*Lack of human resources.* Human resources are the pillar of any organization, and their lack can compromise any type of reform, whether accounting or not. This problem is felt in developed countries on reform accounting implementation (Eriotis et al., 2012; Fuentes and Borreguero, 2018; Hladika, 2022; Jones and Caruana, 2014; van Helden and Reichard, 2018; Ismaili et al., 2021).

In developing countries, empirical literature underscores scarcities of human capital (Brito and Jorge, 2021; Gómez-Villegas et al., 2020; Mohammadrezaei et al., 2013) This problem is confirmed by Yuliati, Yuliansyah, and Adelina (2019), who mention that this human resource issue is found in almost all of the local governments sampled in Indonesia, that it is generally difficult to find accounting staff with an accounting background, and that human resources are inadequate in terms of quantity and quality.

*Absence of internal control.* In developed countries, the lack of internal control is identified as a constraint to the implementation of public accounting reform (Ada and Christiaens, 2017; Christiaens, 2001; Haldma and Kenk, 2014; Nakmahachalasint and Narktabtee, 2019). The study of Carvalho, Camões, Jorge, and Fernandes (2007) found that in Portuguese municipalities there is no legal entity to perform audits and that in fact the audits are carried out by the Court of Accounts and the General Financial Inspection authorities only to scrutinize legal form and fiscal regularity. Audits do not assess compliance with the new accounting system requirements in terms of policies and practices. The same problem was found in Flemish municipalities, which are not subject to a professional full audit and so do not stimulate the municipalities to comply with the reformed accounting regulations (Christiaens and van Peteghem, 2007).

In developing countries, the problem is almost the same (Tetteh et al., 2021). An investigation in Iran reveals that the lack of a single auditor in the executive systems is one of the most important administrative problems of financial supervision of auditors in the implementation of the public sector accounting system (Jani et al., 2020).

*Relationship between systems.* Previous studies point out that having various accounting systems simultaneously without abandoning an earlier one is an obstacle to successful reform implementation (Arnaboldi and Lapsley, 2009; Christiaens and van Peteghem, 2007; Hrůza and Valouch, 2016; Hyndman and Liguori, 2018; Scheers et al., 2006; van der Hoek, 2005). For example, Brusca and Julve (2014) addressed the duality of financial and budgetary accounting systems, which is a barrier to implementing accrual accounting in Spanish local governments.

Developing countries highlight the non-integrated systems. In Sri Lanka, Nagirikandalage and Binsardi (2015) found that all the areas in accounting are not yet linked to each other, and in Ghana, a lack of integration between human resources needs for organizations to engage with their external environment is one of the main issues of modern institutionalism (Tetteh et al., 2021).

### ***Constraints - opportunities for future research***

#### *Developed and developing countries*

Political environment and commitment are strong constraints on the reform of accounting found in developed and developing countries. In both cases there is a lack of top management support, a lack of support from the authorities, and the adoption of accrual accounting is not a priority (Araya-Leandro et al., 2011). Gómez-Villegas et al. (2020) found that some countries and governments are claiming that they follow the standards, ignoring their prerequisites and the internal changes that their implementation requires. For future research it would be interesting to compare developed and developing countries regarding different political environments to adopt the IPSAS.

Previous studies have demonstrated that the lack of a system of penalties leads to less commitment to IPSAS implementation on the part of the actors involved. Future research could compare the results of the implementation of accounting reforms in cases where there have been incentives for implementation, with cases where there have been penalties for non-compliance, to assess which of the measures best contributes to the success of the reform in the public sector.

The lack of accounting knowledge and skills is clearly the greatest factor of embarrassment in the implementation of accounting reforms. Further research may address this factor, analyzing

whether the implementation of IPSAS contributed to the reduction of the lack of accounting knowledge and consequently contributed to the increase in the quality of accounting reports in the public sector in developed and developing countries.

The adoption of new accounting standards requires resources such as investments in IT systems. Lutilsky et al. (2016) identified that the greatest constraint to the implementation of the accrual accounting basis is political support and IT support. Scheers et al. (2006) sought to determine whether the information technology system has caused problems in Australia and the UK. Cohen et al. (2007) studied the IT failure experienced by Greek municipalities resulting from shortcomings of the software provided by vendors. Additional research could seek to identify whether the best solution for the implementation of accounting reforms is to use computer systems designed and defined by software vendors or to develop IT internally. An additional area of interest in IT systems would be to determine if developing and using eXtensible Business Reporting Language (XBRL) for financial statements addresses the challenges of a digital economy. XBRL has become mandatory in some countries for public sector organizations that adopt new accounting reforms. Future research could explore if cost reduction can be achieved by implementing electronic reporting (Grossi et al., 2023).

The absence of internal control is one of the factors identified in both developed and developing countries that are always present in the implementation of accounting reforms. The results of the study by Jani et al. (2020) underscore that auditors have a significant impact on the correct implementation of the public sector accounting system. Further research should assess the impact of the role of external auditors on the degree of implementation of accounting standards.

#### *Developed countries*

For developed countries, Fuentes and Borreguero (2018) concluded that regarding the number of human resources, the need to increase the number of people who work in the financial control area is apparent, especially in small local governments. This is one of the most important variables that determine an organization's administrative capacity at the micro and macro levels (Duque, 2012). For future investigations we suggest the creation of Key Performance Indicators (KPIs) that allow for a comparison of the implementation of IPSAS in organizations with different administrative capacities and the quality of accounting information according to the new public reforms.

In the public sector of developed countries, the coexistence of budget, finance, and management accounting is frequent, each with its own rules and implementations at different paces, which causes some discordance. For example, Brusca and Montesinos (2014) determined that one of the demotivating factors in the implementation of IPSAS is the ambiguity and lack of harmonization that occurs between budget accounting and accrual accounting. It is therefore important to investigate this dichotomy by analyzing public sectors that have implemented budgetary, financial, and management accounting to assess the problems and benefits of coexistence.

### *Developing countries*

The complexity of standards is most often seen in developed countries, with many uncertainties and doubts surrounding exercise accounting in the public sector. There is an underestimation of the complexity of financial accounting, especially its requirement to value and register assets (Adhikari et al., 2019; Scott et al., 2016). This is probably because the process of accounting harmonization is based on the application and adoption of models based on Anglo-American traditions. Future research might examine the relationship between the level of development and the level of implementation of IPSAS in a country.

The implementation of accrual accounting carries very high costs that become difficult to bear, especially in developing countries. Authors such as Ademola et al. (2020) and Ahmad and Nasserredine (2019) defend that a considerable amount of money should be set aside for the full adoption and implementation of IPSAS. This could be done by requesting support from various financial institutions, based on experiences using know-how and various donor projects, to finance and support the reform and its costs. Shehadeh (2022) argues that international institutions such as the IMF and World Bank should provide technical and financial assistance to developing nations in their implementation of IPSAS. Future investigations could compare the efficiency and effectiveness of implementing accounting reforms among countries that have had external financial assistance to implement such reforms compared to countries that have not.

### ***Stimuli for public accounting reforms implementation***

Table 6 shows the main results of the study, with the distribution of the papers by stimuli topics, considering the developed, developing, and multiple countries.

**Table 6. Stimuli for public accounting reform implementation**

Stimuli	Total	Developed countries	Developing countries	Multiple countries
<b>Exogenous</b>	<b>21</b>	<b>9</b>	<b>12</b>	<b>3</b>
External pressure	17	5	10	2
Financial crisis	7	4	2	1
<b>Endogenous</b>	<b>50</b>	<b>29</b>	<b>19</b>	<b>2</b>
Internal pressure	17	6	10	1
Modernization or improvement	16	9	6	1
Consultants' involvement	9	6	3	0
Accounting expertise	8	8	0	0

Note: The sum of the articles is greater than the total number of articles. Each article can mention more than one stimulus and/or more than one country, and each country is analyzed by more than one article.

Source: *Elaborated by authors*

Regarding implementation stimuli of public accounting reforms, we found external pressure and financial crisis as the leading exogenous factors.

*External pressure.* The reform in the public sector toward improving accounting and financial information has been strongly influenced by the involvement of international organizations (Adhikari et al., 2011; Grossi and Soverchia, 2011; Lokuwaduge, 2016; Yapa and Ukwatte, 2015). Christiaens et al. (2015) examine the external pressures of the new public reforms and found that within them there are different external pressures to adopt new public reforms. For example, Sweden, Finland, and the Netherlands were leaders in the new accounting developments, contrary to Romania and Ukraine, where the transition to accounting reforms has not been easy since the end of the communist era. Eastern European countries including Bulgaria, Croatia, Slovakia, and Slovenia appear to adopt the IPSAS more intensively, motivated by their wish to adhere to the EU. Finally, the harmonization process has been weak and partial in Italy, France, and Spain due to inadequate harmonization among different levels of government, which was then reflected in external harmonization (Ada and Christiaens, 2018; Gomes et al., 2015; Haldma and Kenk, 2014).

External pressure is very pronounced in developing countries but previous studies indicate that the reasons are different compared to developed countries. Due mainly to ethnic and political conflicts and sometimes wars, developing countries depend largely on international aid and loans for development activity, which has resulted in high external debt.

Consequently, due to their elevated dependence on international funding and other resources, developing countries are under pressure from international organizations to adopt public sector accounting reforms for better accountability and transparency (Adhikari et al., 2013; Harun et al., 2021; Krishnan, 2021; Lokuwaduge and Silva, 2020; Mbelwa et al., 2018; Tetteh et al., 2021).

*Financial crisis.* In times of financial distress and scarce resources, the need for this kind of information is even greater. The global financial crisis caused great turbulence in various European countries, mainly evident in financially weaker member states such as Spain, Portugal, Italy, and Greece. This led to the development of a unique formation of external fund providers aiming to provide financial support to developed countries in need. For example, in Portugal the financial crisis was attributable to a great dependence on money lent by the IMF. The Portuguese government has now been reforming its financial information systems following international requirements oriented to IPSAS, copying the changes successfully introduced by other countries (Gomes et al., 2015). In the same line, Agasisti, Catalano, and Erbacci (2018) also found that the dramatic crisis involving Italy's national debt highlighted the need to improve financial reporting within governments and public sector organizations.

In developing countries financial crises are the drivers of most changes in public administrations. Sri Lanka is largely dependent on international aid and loans for development activity and the adoption of the accrual-based IPSAS as a measure of the effective use of public sector resources and transparency of financial information systems in the public sector (Lokuwaduge and Silva, 2020). Harun, Eggleton, and Locke (2021) mention that the Asian efforts to reform public sector finance practices following the financial crisis became a priority to make the handling of government expenditures more efficient and economical. Also, in Latin America the reforms of public financial management originally sought greater fiscal stability, intending to improve public finances and encourage economic growth in several waves (Gómez-Villegas et al., 2020).

Internal pressure, modernization and improvement, consultant involvement and accounting expertise were found to be the most important endogenous factors regarding the implementation stimuli of public accounting reforms.

*Internal pressure.* The literature shows that local governments have largely perceived consolidated financial statements as a tool that they can use to provide a clearer picture of their efficiency and effectiveness in the use of public resources while improving their transparency and raising the public's perception of their organizational conduct (Santis et al., 2019). In European countries such as Portugal (Gomes et al., 2015), Estonia (Haldma and Kenk, 2014), Hungary (Lentner et al., 2020), and Malta (Jones and Caruana, 2014) pressure from the central and local governments is seen as a stimulus in accounting reform through the adoption of the business accounting model to improve the economy and the efficiency and effectiveness of government operations.

Achieving improved efficiency, effectiveness, and transparency are very important incentives in developing countries in their accounting reforms that include mechanisms to fight corruption and increase accountability, which would allow for a more accurate assessment of the use of resources (Brito and Jorge, 2021; Gómez-Villegas et al., 2020; Krishnan, 2021; Mbelwa et al., 2018; Nagirikandalage and Binsardi, 2015; Rajib and Hoque, 2016). For instance, Harun and Kamase (2012) pointed out that the adoption of the new reporting system in Indonesia was stimulated by the wish to improve government organizations' performance. Tetteh et al. (2021) found that the pressure coming from stakeholders was one of the main drivers of the government's decision to adopt, implement, and use integrated financial management information systems (IFMIS) for the management of public financial resources.

*Modernization and improvement.* In public finances the books have become up-to-date, the classifications have been rearranged, and the use of appropriations complies with the relevant requirements (Ismail et al., 2018; Santis et al., 2019). For that, Hungary made a transition to accrual accounting, and the efficiency of business management has improved and has become more transparent, while accountability has also improved (Lentner et al., 2020). The fact that the government does not have a formal accounting system that is considered "modern" by the external environment makes it vulnerable to claims of negligence. This happened in Malta and it explains why a government would develop a new accounting system before deciding on the broader conceptual design features behind that new system (Caruana, 2017; Jones and Caruana, 2014; Kowalczyk and Caruana, 2022). In addition, Haldma and Kenk, (2014) found that the public sector in Estonia saw the expanding NPM concept for improving the efficiency and effectiveness of the public sector based on better financial and non-financial information, as a significant incentive for accounting reform.

In developing countries such as Colombia and Peru, for example, the main stimulus in the harmonization and adoption process of IPSAS has been the aim to modernize accounting systems, seeking to increase transparency in the use of financial resources (Brusca et al., 2016). Simpson, Tetteh, and Agyenim-Boateng (2020) determined that a major aim of the adoption and implementation of new accounting reforms in Ghana is to enhance transparency and accountability in the use of public resources and to reduce wasteful spending, and at the same time enhance credibility in the management of public resources and ensure improvement in budgeting preparation and execution.

*Consultants' involvement.* Consultants' involvement can help to solve the skills shortages that have hampered IPSAS adoption, can provide the technical expertise needed to improve performance, and provide an enabling environment for IPSAS adoption. In developed countries, an incentive for the implementation of accounting was found, namely the involvement of consultants (Connolly and Hyndman, 2006; Eriotis et al., 2012; Nakmahachalasint and Narktabtee, 2019). This can be found in the Flemish government, where the mere involvement of consultants can be considered a significant factor positively affecting the level of compliance to the reform at different periods (Christiaens and van Peteghem, 2007). The study conducted by Haldma and Kenk (2014) revealed auditors' requirements to be a stimulus for governmental accounting reform, as they substantially improved the accounting procedures in Estonian local governments moving toward the accrual basis and business accounting, and supported the formation and delivery of fairer and more reliable financial information (Christensen, 2002).

In developing countries, previous studies found consultants' involvement to be a stimulus for IPSAS adoption. For example, Shehadeh (2022) found that the involvement of external and internal auditors throughout the implementation process is one of the most important prerequisites for the successful implementation of accrual-based IPSAS in the Jordanian public sector.

*Accounting expertise.* Ismail et al. (2018) mention that “change valence” has a significant impact on the willingness to adopt accrual accounting. However, the level of education of the accounting department staff and the level of specific training are important positive factors in explaining the alternative implementation scenarios adopted by different organizations in developed countries (Eriotis et al., 2012; Hyndman and Liguori, 2018). These alternative implementation scenarios are improved by the available accounting, regular assessments, and

corrective actions that are perceived by the departments as being more efficient and effective (Scheers et al., 2006).

In an attempt to understand why central governments in some countries have moved to accruals budgeting while others continue to use cash budgeting, given that both groups of countries share that their financial reporting system has become accruals-based, van Helden and Reichard (2018) analyzed four countries: Belgium, Portugal, the United Kingdom, and Austria and found that accrual-based accounting information would require more accounting expertise than cash-based accounting information from public sector managers and especially from politicians. In Austria, the reform was facilitated by accrual elements already existing in the formally established hybrid bookkeeping system. In Greece, Eriotis, Stamatiadis, and Vasiliou (2012) analyzed the implementation of accrual financial and cost accounting practices in public hospitals and concluded that the education level of accounting department staff and the level of specific training are important positive factors in explaining the alternative implementation scenarios adopted by different public hospitals. In Malaysia, the government continually ensures the availability of experts and human capital to ensure the successful transition from cash accounting to accrual accounting (Ismail et al., 2018).

In developing countries, there are no studies identified that directly point to accounting expertise as a stimulus for IPSAS adoption. For instance, in Indonesia the government took special note of the accounting staff's competence, recruited new accounting staff, and encouraged the accounting staff to pursue higher education (Mulyani et al., 2018). In Cape Verde, Brito and Jorge (2021) analyzed the process of institutionalization of a new public sector accounting system and found that one of the drivers of the reform was a dominating doctrine of business accounting.

### ***Stimuli – opportunities for future research***

#### *Developed and developing countries*

The global financial crisis shifted the focus of accounting and financial management of the public sector in both developed and developing countries. IPSAS adoption in European countries has arisen after financial crisis to improve trust and comparability and quality of public sector accounting information (Brusca and Martinez, 2016). For example, in Portugal the financial crises that occurred were a stimulus to improve the accounting and reporting situation (Gomes et al., 2015). In Greece, despite the crisis that led to operations under special

circumstances of financial pressure, the choice was to strengthen the existing money-based budget system (Cohen and Karatzimas, 2018). The recent crises represent an opportunity to explore the role of accounting under extraordinary conditions and difficult times. Future research needs to look more at the how the power of accounting can be used to buffer and anticipate the consequences of financial crises (Steccolini, 2019). Accounting systems can thus play a considerable role in shaping how crises are perceived and interpreted, providing organizations with tools and capacities to deal with unexpected events.

The modernization of governmental accounting has spread around the world. In both developed and developing countries governments are aware of the importance of modern accounting systems (Brusca and Martínez, 2016). Kowalczyk and Caruana's (2022) study mentioned that showing how the traditional cash-based budgetary accounting system has persisted amidst attempts by governments to “modernize” their accounting systems to perhaps meet private sector professional expectations reveals comprehensibility legitimacy. The modernization of governmental accounting brings new attention to how the technologies and digital solutions transform the way the public sector works. This may provide opportunities for future research to investigate how the public sector uses the different forms of information and communication technologies that offer the possibility of more efficiency in the adoption of international accounting standards (Grossi et al., 2023).

Concerning the factor of internal pressure as a stimulus in the implementation of accrual accounting, it should be seen that organizations in both developed and developing countries are also under internal pressure to implement accounting reforms, especially as managers see this reform as a way to improve the transparency of results. Simpson et al. (2020) state that accounting reform promotes efficiency, effectiveness, accountability, transparency, data management security, and comprehensive financial reporting to reduce wasted spending and corruption. Further research can investigate if in the countries where IPSAS has been implemented, there was an increase in efficiency and effectiveness in the management of public money.

Analyzing the consultants' involvement factor in developed and developing countries, external management consultants have been identified as key levers in the process of changing management practices in the public sector and facilitating the implementation process as technical implementation support and also as a “source of knowledge” (Lassou et al., 2018). Christensen (2002) concluded that the role of management consultants in the

promotion, design, and implementation of public sector exercise accounting has been one of the most significant instances of epistemic influence on the inner workings of government over the past two decades. Future investigations can be carried out to determine how the quality of external consultants is a decisive stimulus in the implementation of IPSAS.

#### *Developed countries*

In developed countries accounting experience is a stimulating factor in the implementation of new international standards. Hyndman and Liguori (2018) showed that the changes in Westminster's public accounts were reinforced by the experience of the actors. Further research could also investigate how legitimation strategies enable actors to establish and exercise different power relationships during processes of change. Accounting experience can lead public sector organizations to develop new reporting tools in combination with the use of IT to create additional spaces for democratic participation (Grossi et al., 2023). Hence, future studies can investigate how the new reforms adoption use accounting experience to prepare and communicate information for citizens and other stakeholders. Internet and social media are digital tools for capturing citizens' perception about new public reforms adoption, involving them in public administration activities and increasing transparency for several stakeholders (Cohen et al., 2017). In turn, it would be interesting to investigate how accounting experience in using the digital tools can also be useful when preparing financial and non-financial reports for communicating with stakeholders.

#### *Developing countries*

Developing countries are known to often have weak or limited public financial management and accounting systems (Sellami and Gafsi, 2019), and the adoption of accounting reforms is the external factor that can signal improvements in public sector financial reporting systems (Tawiah and Soobaroyen, 2022). The institutions are providers of conditional promises of legitimacy, by which conditions require the state to agree on convergence with international standards. Krishnan (2021) pointed out that these institutional influences may likely lead to the existence of disparities between reasoning and real reasons for government accounting reforms undertaken by developing countries.

So far, a number of factors such as regulation, the experience of private sector international standards, openness, public value, and co-production are associated with IPSAS adoption. In turn, it would be interesting to examine the consequence of implementation of public

accounting reforms, and how external pressures from IPSAS adoption translate into benefit outcomes for these countries. In addition, whether external pressures from international institutions such as the World Bank, IMF, African Development Bank, and Asian Development Bank, in the context of political and conceptual challenges, have actually led to increased quality of accounting information (Polzer et al., 2019).

## **2.6. Conclusion**

This article discussed the adoption of IPSAS in the public sector in developed and developing countries, identifying the constraints and stimuli mentioned in 90 papers published from 2000 to 2022. It also addressed a number of perceptions of those involved in the implementation of IPSAS in developed and developing countries, and provided a robust research agenda to explore during the coming years.

Implementation of public accounting reforms in the developed and developing contexts remains the subject of considerable debate (Polzer et al., 2021). Addressing NPM theory and institutional theory, this paper identified constraints and stimuli factors in the implementation of public accounting reforms as well as the differences between developed and developing contexts. The main results suggest that there are differences between constraints and stimuli in the implementation of accounting standards between developed and developing countries. This is comprehensive, as the developed countries have used different approaches in the adoption of IPSAS and are in different stages of adoption, as compared to developing countries (Rossi et al., 2016). So far, it is widely argued that a number of factors such as political environment, regulation, corruption, financial resources, and salience of public sector organization differ between developed and developing countries (Tawiah and Soobaroyen, 2022).

Institutional theory emphasizes that the successful implementation of new accounting reforms relies on the actions of individuals and groups, who employ various logics to ensure consensus (Lapsley and Pallot, 2000). When examining the differences between developed and developing countries, research grounded in institutional theory suggests that the specific arrangements of institutions, intertwined with locally constructed issues, play a significant role in determining which accounting system is adopted and the type of government involved (Harun and Kamase, 2012). Moreover, the pressure to adopt IPSAS is particularly evident in developing countries due to the influence exerted by international donors and organizations (Polzer et al., 2021).

In terms of constraints, we find evidence that the main factor in developed countries is the lack of training, whereas in developing countries it is the limited financial resources. In addition, we identify constraints that are relevant in both developed and developing countries, such as the lack of accounting knowledge and skills, and limitations of software and information technologies. In turn, this study delineated the future directions for research on constraints factors in the adoption of public sector accounting. An ongoing debate about global implementation of public accounting reform includes a continuing suspicion that the costs of implementation far outweigh the benefits.

In terms of stimuli, we find evidence that the main factors in developed countries are modernization or improvement and accounting expertise, and in developing countries, external and internal pressure. Interestingly, accounting expertise is the stimulus for IPSAS adoption identified for developed countries. In addition, we identify stimuli that are relevant in both developed and developing countries, such as consultants' involvement and financial crisis.

The previously presented overview highlights several areas that are more mature within accounting studies (political environment, accounting knowledge and skills, financial crisis, external and internal pressure) or are developing (modernization, financial resources, internal control) depending on the country context. The most unexplored stages in the IPSAS adoption are the lack of human resources in the developed countries and the relationship between systems and lack of visible benefits in developing countries. Future research needs to address these issues and investigate the role of some accounting quality factors as a consequence of IPSAS adoption, such as readability (Ciurea, 201), and public values of accounting reforms (Bracci et al, 2021). Simultaneously, technological innovation has also profoundly modified public sector accounting, including the digital forms of information and communication technologies that are gaining interest in theory and practice for their potential to reach stakeholders (Jayasinghe et al., 2020). Accounting experience in using the digital tools also affects preparing financial and non-financial reports for communicating with stakeholders.

This study makes a significant contribution to academic knowledge and holds practical and social implications. It presents a comprehensive systematic literature review that analyzes all relevant studies on the adoption of IPSAS in the public sector, encompassing both developed and developing countries. By identifying the constraints and stimuli associated with IPSAS

adoption, this study offers valuable insights for future research directions, making a meaningful contribution to academia.

The findings of this study hold practical relevance for public organizations currently engaged in the implementation of accrual accounting and, specifically, the adoption of IPSAS. The study's insights can assist these organizations in navigating the challenges and opportunities that arise during the implementation process. Additionally, the findings are pertinent to countries and their organizations that are considering undertaking the adoption of IPSAS, providing valuable guidance and lessons from the existing body of literature. This study holds significant value for managers of organizations involved in the transition to exercise accounting, as it identifies key factors that can assist them in making informed decisions during this process. By understanding the factors discussed in this study, managers can make more effective choices and navigate the challenges associated with transitioning to exercise accounting.

Furthermore, this study has broader societal implications. It sheds light on the factors that influence the paradigm shift towards greater transparency in public accountability, benefiting both citizens and taxpayers. By highlighting these factors, the study contributes to fostering a more transparent and accountable public sector, which ultimately enhances trust and accountability between the government and society.

## **2.7. References**

\* = included in the literature review

ACCA. (2017). IPSAS implementation: current status and challenges about ACCA. *ACCA Magazine*, 30

\*Ada, S. and Christiaens, J. (2017). Why do some Municipalities apply accrual-based rules mores than others? Evidence from Turkey. *Ekonomie a Management*, 20(3), 189–206. <https://doi.org/10.15240/tul/001/2017-3-013>

\*Ada, S. and Christiaens, J. (2018). The magic shoes of IPSAS: Will they fit Turkey? *Transylvanian Review of Administrative Sciences*, 14(54E), 5–21. <https://doi.org/10.24193/tras.54E.1>

\*Ademola, A., Ben-Caleb, E., Madugba, J., Adegboyegun, A. and Eluyela, D. (2020). International public sector accounting standards (IPSAS) adoption and implementation in Nigerian public sector. *International Journal of Financial Research*, 11(1), 434–444. <https://doi.org/10.5430/IJFR.V11N1P434>

- \*Adhikari, P., Kuruppu, C. and 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), 213–230. <https://doi.org/10.1016/j.accfor.2013.01.001>
- Adhikari, P., Kuruppu, C. and Mellemvik, F. (2011). Public sector accounting reforms in two South Asian countries: a comparative study of Nepal and Sri Lanka. *Conditions for entrepreneurship in Sri Lanka: A Handbook*, 257–282
- \*Adhikari, P., Kuruppu, C., Ouda, H., Grossi, G. and Ambalangodage, D. (2019). Unintended consequences in implementing public sector accounting reforms in emerging economies: evidence from Egypt, Nepal and Sri Lanka. *International Review of Administrative Sciences*. <https://doi.org/10.1177/0020852319864156>
- \*Adhikari, P. and Mellemvik, F. (2010). The adoption of IPSASs in South Asia: A comparative study of seven countries. *Research in Accounting in Emerging Economies*, 10, 169–199. [https://doi.org/10.1108/s1479-3563\(2010\)0000010012](https://doi.org/10.1108/s1479-3563(2010)0000010012)
- Agasisti, T., Catalano, G., Di Carlo, F. and Erbacci, A. (2015). Accrual accounting in Italian universities: a technical perspective. *International Journal of Public Sector Management*, 28(6), 494–508. <https://doi.org/10.1108/IJPSM-02-2015-0026>
- \*Agasisti, T., Catalano, G. and Erbacci, A. (2018). How Resistance to Change Affects the Implementation of Accrual Accounting in Italian Public Universities: A Comparative Case Study. *International Journal of Public Administration*, 41(12), 946–956. <https://doi.org/10.1080/01900692.2017.1301469>
- Agostino, D., Saliterer, I. and Steccolini, I. (2022). Digitalization, accounting and accountability: A literature review and reflections on future research in public services. *Financial Accountability and Management*, 38, 152–176. <https://doi.org/10.1111/faam.12301>
- \*Ahmad, A. and Nasserredine, H. (2019). Major Challenges and Barriers to IPSASs Implementation in Lebanon. *Proceedings of the International Conference on Business Excellence*, 13(1), 326–334. <https://doi.org/10.2478/picbe-2019-0029>
- \*Al-otoom, T. and Alrabba, H. (2022). Impact of Lack of Self-efficiency and Assets Evaluation on Resistance of IPSAS Implementation. *Information Sciences Letters*, 11(5), 1771–1779. <https://doi.org/10.18576/isl/110533>
- Allen, R. (2009). The Challenge of Reforming Budgetary Institutions in Developing Countries. *IMF Working Papers*. <https://doi.org/10.5089/9781451872439.001>
- Alon, A. and Dwyer, P. (2014). Early adoption of IFRS as a strategic response to

- transnational and local influences. *International Journal of Accounting*, 49(3), 348–370.  
<https://doi.org/10.1016/j.intacc.2014.07.003>
- Amirkhani, T., Aghaz, A. and Sheikh, A. (2019). An implementation model of performance-based budgeting: Evidence from the Iranian healthcare sector. *International Journal of Productivity and Performance Management*, 69(2), 382–404.  
<https://doi.org/10.1108/IJPPM-05-2018-0171>
- Anessi-Pessina, E., Barbera, C., Sicilia, M. and Steccolini, I. (2016). Public sector budgeting: a European review of accounting and public management journals. *Accounting, Auditing and Accountability Journal*, 29 (3) 491-519. <https://doi.org/10.1108/AAAJ-11-2013-1532>
- \*Antipova, T. and Bourmistrov, A. (2013). Is Russian Public Sector Accounting in the Process of Modernization? An Analysis of Accounting Reforms in Russia. *Financial Accountability and Management*, 29(4), 442–478. <https://doi.org/10.1111/faam.12021>
- \*Araya-Leandro, C., Caba-Pérez, C. and López-Hernández, A. (2011). Innovation in governmental financial information systems in the Central American region: Evidence from Costa Rica. *Innovar*, 21(41), 111–124
- Archambault, J. and Archambault, M. (2009). An analysis of social factors influencing the adoption of International financial reporting standards. *Journal for Global Business Advancement*, 2(1–2), 38–53. <https://doi.org/10.1504/JGBA.2009.023093>
- \*Arnaboldi, M. and Lapsley, I. (2009). On the implementation of accrual accounting: A study of conflict and ambiguity. *European Accounting Review*, 18(4), 809–836.  
<https://doi.org/10.1080/09638180903136225>
- \*Azevedo, R., Aquino, A., Neves, F. and Silva, C. (2020). Deadlines and software: disentangling local government accounting reforms in Brazil. *Public Money and Management*, 40(7), 509–518. <https://doi.org/10.1080/09540962.2020.1766203>
- \*Azevedo, R., Lino, A., Aquino, A. and Machado-Martins, T. (2020). Financial Management Information Systems and accounting policies retention in Brazil. *International Journal of Public Sector Management*, 33(2–3), 207–227. <https://doi.org/10.1108/IJPSM-01-2019-0027>
- Bakre, O., Lauwo, S. and McCartney, S. (2017). Western accounting reforms and accountability in wealth redistribution in patronage-based Nigerian society. *Accounting, Auditing and Accountability Journal*, 30(6), 1288–1308.  
<https://doi.org/https://doi.org/10.1108/AAAJ-03-2016-2477>
- Biswas, A. (2020). New Public Management: Meaning, 10 Principles, and Features. *School of*

- Political Science*. <https://schoolofpoliticalscience.com>
- Bracci, E., Saliterer, I., Sicilia, M. and Steccolini, I. (2021). Accounting for (public) value(s): reconsidering publicness in accounting research and practice. *Accounting, Auditing and Accountability Journal*, 34(7), 1513-1526. <https://doi.org/10.1108/AAAJ-06-2021-5318>
- \*Brito, J. and Jorge, S. (2021). The Institutionalization of a New Accrual-based Public Sector Accounting System: The Case of Cape Verde. *International Journal of Public Administration*, 44(5), 372–389. <https://doi.org/10.1080/01900692.2020.1728312>
- \*Bruno, A. and Lapsley, I. (2018). The emergence of an accounting practice: The fabrication of a government accrual accounting system. *Accounting, Auditing and Accountability Journal*, 31(4), 1045–1066. <https://doi.org/10.1108/AAAJ-01-2016-2400>
- \*Brusca, I., Gómez-Villegas, M. and Montesinos, V. (2016). Public Financial Management Reforms: The Role of IPSAS in Latin-America. *Public Administration and Development*, 36(1), 51–64. <https://doi.org/10.1002/pad.1747>
- \*Brusca, I. and Martínez, J. (2016). Adopting International Public Sector Accounting Standards: a challenge for modernizing and harmonizing public sector accounting. *International Review of Administrative Sciences*, 82(4), 724–744. <https://doi.org/10.1177/0020852315600232>
- \*Brusca, I. and Montesinos, V. (2014). Accrual financial reporting in the Public Sector: Is it a reality? *Innovar*, 24(54), 107–120. <https://doi.org/10.15446/innovar.v24n54.46458>
- \*Caruana, J. (2017). Reform for reform’s sake: A never-ending story of governmental accounting change. *Business and Economic Horizons*, 13(5), 676–705. <https://doi.org/10.15208/beh.2017.46>
- \*Carvalho, J., Camões, P., Jorge, S. and Fernandes, M. (2007). Conformity and diversity of accounting and financial reporting practices in Portuguese local government. *Canadian Journal of Administrative Sciences*, 24(1), 2–14. <https://doi.org/10.1002/cjas.1>
- Carvalho, J., Gomes, P. and Fernandes, M. (2012). The Main Determinants of the Use of the Cost Accounting System in Portuguese Local Government. *Financial Accountability and Management*, 28(3), 306–334. <https://doi.org/10.1111/j.1468-0408.2012.00547.x>
- Chan, J. (2009). Chapter 3 The History of American Government Accounting Reform. *American Government Accounting Standards and Their Relevance to China*, 1–16
- \*Christensen, M. (2002). Accrual accounting in the public sector: The case of the New South Wales government. *Accounting History*, 7(2), 93–124. <https://doi.org/10.1177/103237320200700205>
- \*Christiaens, J. (2001). Converging New Public Management Reforms and Diverging

- Accounting Practices in Flemish Local Governments. *Financial Accountability and Management*, 17(2), 153–170. <https://doi.org/10.1111/1468-0408.00126>
- \*Christiaens, J. and van Peteghem, V. (2007). Governmental Accounting Reform: Evolution of the Implementation in Flemish Municipalities. *Financial Accountability and Management*, 23(4), 375–399. <https://doi.org/10.1111/j.1468-0408.2007.00434.x>
- Christiaens, J., Vanhee, C., Rossi, F., Aversano, N. and van Cauwenberge, P. (2015). The effect of IPSAS on reforming governmental financial reporting: an international comparison. *International Review of Administrative Sciences*, 81(1), 158–177. <https://doi.org/10.1177/0020852314546580>
- \*Ciurea, M. (2018). Considerations on the need to implement International Accounting Standards for the Public Sector in Romania. *Annals of the University of Petroșani, Economics*, 18(1), 35–44
- \*Cohen, S., Kaimenaki, E. and Zorgios, Y. (2007). Assessing IT as a Key Success Factor for Accrual Accounting Implementation in Greek Municipalities. *Financial Accountability and Management*, 23(1), 91–111. <https://doi.org/10.1111/j.1468-0408.2007.00421.x>
- Cohen, S. and Karatzimas, S. (2018). The role of the Troika on the Greek central government accounting reforms: The reprioritization riddle. *International Journal of Public Sector Management*, 31(3), 316–330. <https://doi.org/10.1108/IJPSM-06-2016-0101>
- \*Connolly, C. and Hyndman, N. (2006). The actual implementation of accruals accounting: Caveats from a case within the UK public sector. *Accounting, Auditing and Accountability Journal*, 19(2), 272–290. <https://doi.org/10.1108/09513570610656123>
- Dekker, R., Contreras, J. and Meijer, A. (2020). The Living Lab as a Methodology for Public Administration Research: a Systematic Literature Review of its Applications in the Social Sciences. *International Journal of Public Administration*, 43(14), 1207–1217. <https://doi.org/10.1080/01900692.2019.1668410>
- DiMaggio, P. and Powell, W. (1983). The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review*, 48(2), 147–160
- \*Ding, Y. (2000). Harmonisation trends in Chinese accounting and remaining problems. *Managerial Finance*, 26(5), 31–40. <https://doi.org/10.1108/03074350010766666>
- Duque, C. (2012). Analysis of institutional capacity factors in small municipalities in the departments of Boyacá and Cundinamarca. *Cuadernos de Administración*, 28(47), 11–24. <https://dialnet.unirioja.es/servlet/articulo?codigo=5006532>
- \*Elmezughi, A. and Wakil, A. (2018). Feasibility of transformation to accrual basis of

- accounting in the public sector: Kingdom of Bahrain context. *Academy of Accounting and Financial Studies Journal*, 22(6).
- \*Eriotis, N., Stamatiadis, F. and Vasiliou, D. (2012). Assessing Accrual Accounting Reform in Greek Public Hospitals: An Empirical Investigation. *SSRN Electronic Journal*, 4(1), 153–183. <https://doi.org/10.2139/ssrn.1978671>
- Fahlevi, H. (2016). Understanding why the role of accounting is unchanged in Indonesian public hospitals. *Journal of Accounting and Organizational Change*, 12(2), 203–222. <https://doi.org/10.1108/JAOC-03-2014-0020>
- Fan, J., Morck, R., Xu, L. and Yeung, B. (2009). Institutions and Foreign Direct Investment: China versus the Rest of the World. *World Development*, 37(4), 852–865. <https://doi.org/10.1016/j.worlddev.2008.07.016>
- \*Frank, H. and Gianakis, G. (2010). What hath the GASB wrought? The utility of the new reporting model: A National Survey of Local Government Finance Officers. *Journal of Public Budgeting, Accounting and Financial Management*, 22(2), 178–204
- \*Fuentes, S. and Borreguero, J. (2018). Institutional capacity in the accounting reform process in Spanish local governments. *Spanish Accounting Review*, 21(2), 188–195. <https://doi.org/10.1016/j.rcsar.2018.05.002>
- \*Gigli, S., Mariani, L. and Trivellato, B. (2018). Assimilating accounting innovations: lessons from Italian public universities. *Journal of Accounting and Organizational Change*, 14(4), 381–401. <https://doi.org/10.1108/JAOC-10-2017-0101>
- Gomes, P., Brusca, I. and Fernandes, M. (2019). Implementing the International Public Sector Accounting Standards for consolidated financial statements: facilitators, benefits and challenges. *Public Money and Management*, 39(8), 544–552. <https://doi.org/10.1080/09540962.2019.1654318>
- \*Gomes, P., Fernandes, M. and Carvalho, J. (2015). The International Harmonization Process of Public Sector Accounting in Portugal: The Perspective of Different Stakeholders. *International Journal of Public Administration*, 38(4), 268–281. <https://doi.org/10.1080/01900692.2015.1001237>
- \*Gómez-Villegas, M., Brusca, I. and Bergmann, A. (2020). IPSAS in Latin America: innovation, isomorphism or rhetoric? *Public Money and Management*, 40(7), 489–498. <https://doi.org/10.1080/09540962.2020.1769374>
- Gómez-Villegas, M. and Julve, V. (2012). Innovations in Governmental accounting in Latin America: The Case of Colombia. *Innovar*, 22(45), 17–35
- Grossi, G. and Soverchia, M. (2011). European Commission adoption of IPSAS to reform

- financial reporting. *Abacus*, 47(4), 525–552. <https://doi.org/10.1111/j.1467-6281.2011.00353.x>
- Grossi, G. and Argento, D. (2022). The fate of accounting for public governance development. *Accounting, Auditing and Accountability Journal*, 35(9), 272-303. <https://doi.org/10.1108/AAAJ-11-2020-5001>
- Grossi, G. and Steccolini, I. (2015). Pursuing Private or Public Accountability in the Public Sector? Applying IPSASs to Define the Reporting Entity in Municipal Consolidation. *International Journal of Public Administration*, 38(4), 325–334. <https://doi.org/10.1080/01900692.2015.1001239>
- Grossi, G., Steccolini, I., Adhikari, P., Brown, J., Christensen, M., Cordery, C., Ferry, L., Lassou, P., Iii, B., Raudla, R., Sicilia, M., Vinnari, E. and Mcdonald, B. (2023). The future of public sector accounting research. A polyphonic debate. *Qualitative Research in Accounting and Management* 20(1), 1-37 <https://doi.org/10.1108/QRAM-09-2022-0135>
- \*Haldma, T. and Kenk, K. (2014). Development of Estonian local government accounting: the stages of evolution during the years 1991–2013. *Zeszyty Teoretyczne Rachunkowości*, 78, 109–130. <https://doi.org/10.5604/16414381.1122869>
- \*Harun, H. (2007). Obstacles to public sector accounting reform in Indonesia. *Bulletin of Indonesian Economic Studies*, 43(3), 365–376. <https://doi.org/10.1080/00074910701727613>
- \*Harun, H., An, Y. and Kahar, A. (2013). Implementation and challenges of introducing NPM and accrual accounting in Indonesian local government. *Public Money and Management*, 33(5), 383–388. <https://doi.org/10.1080/09540962.2013.817131>
- \*Harun, H., Eggleton, I. and Locke, S. (2021). An integrated model of IPSAS institutionalisation in Indonesia: a critical study. *International Journal of Public Sector Management*, 34(2), 155–170. <https://doi.org/10.1108/IJPSM-07-2020-0195>
- \*Harun, H. and Kamase, H. (2012). Accounting Change and Institutional Capacity: The Case of a Provincial Government in Indonesia. *Australasian Accounting, Business and Finance Journal*, 6(2), 35–50
- Hassan, M.M. (2015). Transformation to more accrual-based accounting practices in Indonesian government. *Journal of International Business Research*, 14(1), 139-165
- Herda, N., Abdullah, N., Krishnan, S., Azrah, A., Zakaria, M. and Morris, G. (2022). Strategic management accounting practices in business: A systematic review of the literature and future research directions. *Cogent Business and Management*, 9(1). <https://doi.org/10.1080/23311975.2022.2093488>

- \*Hidayah, N. and Zarkasyi, W. (2017). The effect of human resources management competency and the role of culture on accrual accounting implementation effectiveness and the impact on quality of accounting information. *European Research Studies Journal*, 20(4), 183–199. <https://doi.org/10.35808/ersj/884>
- \*Hladika, M. (2022). Analysis of Public Managers’ Attitudes Toward Constraints for Implementation of Public Sector Accounting Reform in Croatia. *Ekonomski Pregled*, 73(1), 81–106. <https://doi.org/10.32910/ep.73.1.4>
- \*Hrůza, F. and Valouch, P. (2016). Public Sector Accounting Policy Reform in the Czech Republic: Experience from Local Governments (pilot). *European Financial and Accounting Journal*, 11(4), 17–37. <https://doi.org/10.18267/j.efaj.172>
- \*Hyndman, N. (2016). Accrual accounting, politicians and the UK—with the benefit of hindsight. *Public Money and Management*, 36(7), 477–479. <https://doi.org/10.1080/09540962.2016.1237111>
- Hyndman, N. and Lapsley, I. (2016). New public management: the story continues, *Financial Accountability and Management*, 32(4), 385–408
- \*Hyndman, N. and 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. and Liguori, M. (2018). Achieving radical change: A comparative study of public-sector accounting in Westminster and Scotland. *Accounting, Auditing and Accountability Journal*, 31(2), 428–455. <https://doi.org/10.1108/AAAJ-04-2016-2527>
- Iacuzzi, S. (2021). An appraisal of financial indicators for local government: a structured literature review. *Journal of Public Budgeting, Accounting and Financial Management*, 34(6), 69–94. <https://doi.org/10.1108/JPBAFM-04-2021-0064>
- Inkina, S. (2019). Bureaucratic reform and Russian transition: the puzzles of policy-making process. *Palgrave Communications*, 5(1). <https://doi.org/10.1057/s41599-019-0238-5>
- IPSASB. (2019). *HandBook of International Public Sector Accounting Pronouncements*. International Federation of Accountants
- IPSASB. (2021). *HandBook of International Public Sector Accounting Pronouncements*. International Federation of Accountants
- IPSASB. (2022). *IPSASB ENEWS: DECEMBER*. <https://www.ipsasb.org/news-events/2022-12/ipsasb-enews-december-2022#contents11>
- \*Ismail, S., Siraj, S. and Baharim, S. (2018). Implementation of accrual accounting by Malaysian federal government: Are the accountants ready? *Journal of Accounting and*

- Organizational Change*, 14(2), 234–247. <https://doi.org/10.1108/JAOC-03-2017-0020>
- Ismaili, A. and Ismajli, H. (2020). Theoretical review on the implementation of IPSAS accrual basis and its benefits to the public sector. *International Journal of Management Cases*, 22(2), 27–37
- \*Ismaili, A., Ismajli, H. and Vokshi, N. (2021). The importance and challenges of the implementation of IPSAS accrual basis to the public sector: The case of Kosovo. *Accounting*, 7, 1109–1118. <https://doi.org/10.5267/j.ac.2021.2.028>
- \*Jani, M., Pifeh, A. and Faghani, M. (2020). Study and Investigation of the Administrative, Motivational and Individual Challenges and Constraints Characteristics of Financial Supervisors in Public Sector Organizations With the Approach of Desired Implementation of the Public Sector Accounting. *Turismo-Estudos E Praticas*, 2, 1–18
- Jayasinghe, K. Adhikari, P. Soobaroyen, T., Wynne, A., Malagila, J. and 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>
- \*Jones, R. and Caruana, J. (2014). Central government accounting reform in Malta: Is it just an illusion? *Bank of Valletta Review*, 49, 51–78
- \*Jorge, S., Brusca, I. and Nogueira, S. (2019). Translating IPSAS into National Standards: An Illustrative Comparison between Spain and Portugal. *Journal of Comparative Policy Analysis: Research and Practice*, 21(5), 445–462. <https://doi.org/10.1080/13876988.2019.1579976>
- \*Jorge, S., Carvalho, J. and Fernandes, M. (2007). Governmental accounting in Portugal: why accrual basis is a problem. *Journal of Public Budgeting, Accounting and Financial Management*, 19(4), 411–446. <https://doi.org/10.1108/jpbafm-19-04-2007-b001>
- Kim, M., Li, H., Holzer, M. and Zhang, M. (2019). Public Administration Research in Mainland China: A Systematic Review of Chinese Public Administration in English Language Journals (1996–2016). *International Journal of Public Administration*, 42(9), 753–764. <https://doi.org/10.1080/01900692.2018.1506936>
- \*Klimavičienė, I. and Mykolaitienė, V. (2007). Changes in the Accounting System of the Public Sector in Lithuania. *Ekonomika Ir Vadyba*, 12, 63–72.
- Kolesnikov-Jessop, S. (2018). IPSAS implementation is gaining momentum but public sector reporting still has some way to go. A clear strategy, realistic timeframes, milestones and resources are needed. *Accounting and Business-China Edition*.
- \*Kowalczyk, M. and Caruana, J. (2022). Governmental accounting and budgeting in Malta

- and Poland – a different dance to the same tune. *International Journal of Public Sector Management*, 35(7), 783–805. <https://doi.org/10.1108/IJPSM-12-2021-0284>
- \*Krishnan, S. (2021). Decision-making processes of public sector accounting reforms in India—Institutional perspectives. *Financial Accountability and Management*, 1–28. <https://doi.org/10.1111/faam.12294>
- Lapsley, I. (2009). New public management: the cruellest invention of the human spirit? *Abacus*, 45(1), 1-21.
- Lapsley, I. and Pallot, J. (2000). Accounting, management and organizational change: A comparative study of local government. *Management Accounting Research*, 11(2), 213–229. <https://doi.org/10.1006/mare.2000.0129>
- \*Lassou, P., Hopper, T., Soobaroyen, T. and Wynne, A. (2018). Participatory and incremental development in an African local government accounting reform. *Financial Accountability and Management*, 34(3), 252–267. <https://doi.org/10.1111/faam.12154>
- \*Lentner, C., Molnár, P. and Nagy, V. (2020). Accrual accounting and public finance reforms in Hungary: The study of application in the public sector. *Economic Annals-XXI*, 183(5–6), 89–105. <https://doi.org/10.21003/EA.V183-09>
- Lokuwaduge, C. (2016). Exploring the new public management (NPM)-based reforms in the public sector accounting: A Sri Lankan study. *Global Perspectives on Risk Management and Accounting in the Public Sector*, 49–67. <https://doi.org/10.4018/978-1-4666-9803-1.ch003>
- \*Lokuwaduge, C. and Silva, K. (2020). Determinants of public sector accounting reforms: A case study of Sri Lanka in rapidly developing Asia. *International Journal of Public Sector Management*, 33(2–3), 191–205. <https://doi.org/10.1108/IJPSM-03-2019-0085>
- \*Lutilsky, I., Žmuk, B. and Dragija, M. (2016). Cost accounting as a possible solution for financial sustainability of Croatian public hospitals. *Croatian Economic Survey*, 18(2), 5–38. <https://doi.org/10.15179/ces.18.2.1>
- Mattei, G., Jorge, S. and Grandis, F. (2020). Comparability in IPSASs: Lessons to be Learned for the European Standards. *Accounting in Europe*, 17(2), 158–182. <https://doi.org/10.1080/17449480.2020.1742362>
- \*Mbelwa, L., Adhikari, P. and Shahadat, K. (2018). An examination of the institutional and decision-usefulness factors in the implementation of accrual accounting reforms in the public sector of Tanzania. *Journal of Accounting in Emerging Economies*, 1–52.
- \*McLeod, R. and Harun, H. (2014). Public Sector Accounting Reform at Local Government Level in Indonesia. *Financial Accountability and Management*, 30(2), 238–258.

<https://doi.org/10.1111/faam.12035>

- Meyer, J. and Rowan, B. (1977). Institutionalized Organizations: Formal Structure as Myth and Ceremony. *American Journal of Sociology*, 83(2), 340–363. <https://doi.org/10.1086/226550>
- \*Mohammadrezaei, F., Banimahd, B. and Saleh, N. (2013). Convergence obstacles with IASB standards: Evidence from Iran. *International Journal of Disclosure and Governance*, 10(1), 58–91. <https://doi.org/10.1057/jdg.2012.10>
- Moher, D., Liberati, A., Tetzlaff, J. and Altman, D. (2009). Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *BMJ (Online)*, 62(10), 332–336. <https://doi.org/10.1016/j.jclinepi.2009.06.005>
- Mosoba, M. (2017). Tanzania is an IPSAS implementation success story, having fully adopted accrual-based IPSAS four years ago, but the East African pioneer still faces challenges. *Accounting and Business-Africa Edition*.
- Mu, R. and Wang, H. (2020). A systematic literature review of open innovation in the public sector: comparing barriers and governance strategies of digital and non-digital open innovation. *Public Management Review*. <https://doi.org/10.1080/14719037.2020.1838787>
- \*Mulyani, S., Puspitasari, E. and Yunita, D. (2018). Analysis of the Critical Factors in Supporting the Implementation of the Accrual-based Accounting in the Local Government. *Review of Integrative Business and Economics Research*, 7(1), 183–199.
- \*Nagirikandalage, P. and Binsardi, B. (2015). Exploring public sector accounting reforms in an emerging economy: A case of Sri Lanka. *Research in Accounting in Emerging Economies*, 15, 51–83. <https://doi.org/10.1108/S1479-356320150000015003>
- \*Nakmahachalasint, O. and Narktabtee, K. (2019). Implementation of accrual accounting in Thailand's central government. *Public Money and Management*, 39(2), 139–147. <https://doi.org/10.1080/09540962.2018.1478516>
- \*Nasi, G. and Steccolini, I. (2008). Implementation of accounting reforms. An empirical investigation into Italian local governments. *Public Management Review*, 10(2), 175–196. <https://doi.org/10.1080/14719030801928573>
- \*Neves, F. and Gómez-Villegas, M. (2020). Public sector accounting reform in Latin America and Epistemic Communities: an institutional approach. *Journal of Public Administration*, 54(1), 11–31. <https://doi.org/10.1590/0034-761220180157>
- Nyahuna, T. and Doorasamy, M. (2021). Understanding Barriers to Environmental Management Accounting Development and Implementation in Waste Management

- Among South African Municipalities. *Indonesian Journal of Environmental Management and Sustainability*, 5, 140–145. <https://doi.org/10.26554/ijems.2021.5.4.140-145> 1.
- Otavová, M. (2011). Harmonisation efforts in the field of accounting of public sector. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 59(4), 195–202. <https://doi.org/10.11118/actaun201159040195>
- \*Otrusinová, M. (2016). Public sector accounting in the Czech republic and Slovakia. *Administratie Si Management Public*, 2016(27), 30–45.
- \*Otrusinova, M. and Pastuszkova, E. (2013). Transformation process of state accounting to accrual basis accounting in conditions of the Czech Republic. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 61(7), 2593–2602. <https://doi.org/10.11118/actaun201361072593>
- 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/https://doi.org/10.1016/j.cpa.2012.12.001>.
- Panozzo, F. (2000). Management by decree. Paradoxes in the reform of the Italian public sector. *Scandinavian Journal of Management*, 16(4), 357–373. [https://doi.org/10.1016/S0956-5221\(00\)00012-9](https://doi.org/10.1016/S0956-5221(00)00012-9)
- \*Pina, V. and Torres, L. (2002). Accounting Developments of Spanish Local Governments: An International Comparison. *Journal of Public Budgeting, Accounting and Financial Management*, 14(4), 619.
- Polzer, T., Gårseth-Nesbakk, L. and Adhikari, P. (2019). “Does your walk match your talk?” Analyzing IPSASs diffusion in developing and developed countries. *International Journal of Public Sector Management*, 33(2–3), 117–139. <https://doi.org/10.1108/IJPSM-03-2019-0071>
- Polzer, T., Nolte, I. and Seiwald, J. (2021). Gender budgeting in public financial management: a literature review and research agenda. *International Review of Administrative Sciences*, 1–17. <https://doi.org/10.1177/00208523211031796>
- Rajib, M. and Hoque, M. (2016). A Literature Review on Public Sector Accounting Research. *The Jahangirnagar Journal of Business Studies*, 5(1), 269–281.
- \*Rajib, S., Adhikari, P., Hoque, M. and Akter, M. (2019). Institutionalisation of the Cash Basis International Public Sector Accounting Standard in the Central Government of Bangladesh: An example of delay and resistance. *Journal of Accounting in Emerging Economies*, 9(1), 28–50. <https://doi.org/10.1108/JAEE-10-2017-0096>

- \*Reginato, E., Fadda, I. and Pavan, A. (2010). Italian municipalities' NPFM reforms: an institutional theory perspective. *Pecunia: Revista de La Facultad de Ciencias Económicas y Empresariales, Universidad de León*, 11, 153. <https://doi.org/10.18002/pec.v0i11.633>
- \*Ridder, H., Bruns, H. and Spier, F. (2005). Analysis of public management change processes: The case of local government accounting reforms in Germany. *Public Administration*, 83(2), 443–471. <https://doi.org/10.1111/j.0033-3298.2005.00457.x>
- Rossi, F., Cohen, S., Caperchione, E. and Brusca, I. (2016). Harmonizing public sector accounting in Europe: thinking out of the box. *Public Money and Management*, 36(3), 189–196. <https://doi.org/10.1080/09540962.2016.1133976>
- \*Santis, S., Grossi, G. and Bisogno, M. (2019). Drivers for the voluntary adoption of consolidated financial statements in local governments. *Public Money and Management*, 39(8), 534–543. <https://doi.org/10.1080/09540962.2019.1618072>
- \*Scheers, B., Sterck, M. and Bouckaert, G. (2006). Lessons from Australian and British Reforms in Results oriented Financial Management. *OECD Journal on Budgeting*, 5(2), 133–162. <https://doi.org/10.1787/budget-v5-art14-en>
- Schmidhuber, L., Hilgers, D. and Hofmann, S. (2020). International Public Sector Accounting Standards (IPSASs): A systematic literature review and future research agenda. *Financial Accountability and Management*, May, 1–24. <https://doi.org/10.1111/faam.12265>
- \*Scott, D., Wingard, C. and van Biljon, M. (2016). Challenges with the financial reporting of biological assets by public entities in South Africa. *South African Journal of Economic and Management Sciences*, 19(1), 139–149. <https://doi.org/10.17159/2222-3436/2016/v19n1a9>
- Sellami, Y. and Gafsi, Y. (2019). Institutional and Economic Factors Affecting the Adoption of International Public Sector Accounting Standards. *International Journal of Public Administration*, 42(2), 119–131. <https://doi.org/10.1080/01900692.2017.1405444>
- \*Shehadeh, E. (2022). A Movement Towards the Accrual Based IPSAS Implementation in Developing Countries: Evidence from Jordan. *The Journal of Asian Finance, Economics and Business*, 9(3), 389–397. <https://doi.org/10.13106/jafeb.2022.vol9.no3.0389>
- \*Simpson, S., Tetteh, L. and Agyenim-Boateng, C. (2020). Exploring the socio-cultural factors in the implementation of public financial management information system in Ghana. *Journal of Accounting and Organizational Change*, 16(3), 349–368. <https://doi.org/10.1108/JAOC-10-2018-0100>

- Sour, L. (2020). New development: Integration of budget and governmental accounting in Mexican states. *Public Money and Management*, 1–4. <https://doi.org/10.1080/09540962.2020.1763066>
- Steccolini, I. (2019). Accounting and the post-new public management: Re-considering publicness in accounting research. *Accounting, Auditing and Accountability Journal*, 32(1), 255-279. <https://doi.org/10.1108/AAAJ-03-2018-3423>
- \*Sulu-Gambari, W., Stafford, A. and Stapleton, P. (2018). Public accountability reform in a Nigerian ministry. *Qualitative Research in Accounting and Management*, 15(4), 485–509. <https://doi.org/10.1108/QRAM-10-2016-0077>
- Syarifuddin. (2018). Accrual Basis Landscape: The Absence of Political Will in Preventing Dysfunctional Behaviour in Indonesia. *Accounting and Finance Review* 3(3), 77–83. <https://ssrn.com/abstract=3267316>
- Tawiah, V. (2021). The impact of IPSAS adoption on corruption in developing countries. *Financial Accountability and Management*, 103–124. <https://doi.org/10.1111/faam.12288>
- Tawiah, V. (2022). The Effect of IPSAS Adoption on Governance Quality: Evidence from Developing and Developed Countries. *Public Organization. Review*, <https://doi.org/10.1007/s11115-022-00625-w>
- Tawiah, V. and Soobaroyen, T. (2022). The relationship between the adoption of international public sector accounting standards and sources of government financing: evidence from developing countries. *Accounting Forum*. <https://doi:10.1080/01559982.2022.2151073>
- ter Bogt, H. and van Helden, J. (2000). Accounting change in Dutch government: Exploring the gap between expectations and realizations. *Management Accounting Research*, 11(2), 263–279. <https://doi.org/10.1006/mare.2000.0132>
- \*Tetteh, L., Agyenim-Boateng, C., Simpson, S. and Susuawu, D. (2021). Public sector financial management reforms in Ghana: insights from institutional theory. *Journal of Accounting in Emerging Economies*, 11(5), 691–713. <https://doi.org/10.1108/JAEE-06-2020-0134>
- \*Thanh, P., Thanh, H., Thanh, T. and Thuy, T. (2020). Factors affecting accrual accounting reform and transparency of performance in the public sector in Vietnam. *Problems and Perspectives in Management*, 18(2), 180–193. [https://doi.org/10.21511/ppm.18\(2\).2020.16](https://doi.org/10.21511/ppm.18(2).2020.16)
- \*Tickell, G. (2010). Cash To Accrual Accounting: One Nation's Dilemma. *International Business and Economics Research Journal*, 9(11), 71–78.

<https://doi.org/10.19030/iber.v9i11.32>

- \*Tikk, J. (2010). Accounting changes in the public sector in Estonia. *Business: Theory and Practice*, 11(1), 77–85. <https://doi.org/10.3846/btp.2010.09>
- \*Timoshenko, K. (2008). Russian public sector reform: The impact on university accounting. *Journal of Business Economics and Management*, 9(2), 133–144. <https://doi.org/10.3846/1611-1699.2008.9.133-144>
- \*Tóth, B. (2020). The public sector accounting reform of 2014 in the light of the experiences of the local governments: A pilot project to explore the problems. *Public Finance Quarterly*, 65(2), 245–262. [https://doi.org/10.35551/PFQ\\_2020\\_2\\_6](https://doi.org/10.35551/PFQ_2020_2_6)
- Vale, J., Amaral, J., Leal, C. and Silva, R. (2022). Management Accounting and Control in Higher Education Institutions: A Systematic Literature Review. *Administrative Sciences*, 12, 14. <https://doi.org/10.3390/admsci12010014>
- \*van der Hoek, P. (2005). From Cash to Accrual Budgeting and Accounting in the Public Sector: The Dutch Experience. *Public Budgeting and Finance*, 25(1), 32–45. <https://doi.org/10.1111/j.0275-1100.2005.00353.x>
- van Helden, J., Adhikari, P. and Kuruppu, C. (2021). Public sector accounting in emerging economies: a review of the papers published in the first decade of Journal of Accounting in Emerging Economies. *Journal of Accounting in Emerging Economies*, 11(5), 776–798. <https://doi.org/10.1108/JAEE-02-2020-0038>
- \*van Helden, J. and Reichard, C. (2018). Cash or accruals for budgeting? Why some governments in Europe changed their budgeting mode and others not. *OECD Journal on Budgeting*, 18(1), 91–113. <https://doi.org/10.1787/budget-18-5j81804pq0g8>
- \*Venieris, G. and Cohen, S. (2004). Accounting Reform in Greek Universities: A Slow Moving Process. *Financial Accountability and Management*, 20(2), 183–204. <https://doi.org/10.1111/j.1468-0408.2004.00192.x>
- \*Yahya, I., Hasibuan, R., Torong, Z. and Muda, I. (2018). Factors that influence success implementation of government accounting standard (SAP) based on accrual in the government of the districts/cities in North Sumatera Province. *Journal of Management Information and Decision Science*, 21(1), 1–14.
- Yapa, P. and Ukwatte, S. (2015). The New Public Financial Management (NPFM) and Accrual Accounting in Sri Lanka. *Research in Accounting in Emerging Economies*, 15, 7–50. <https://doi.org/10.1108/S1479-356320150000015002>
- \*Yuliati, R., Yuliansyah, Y. and Adelina, Y. (2019). The implementation of accrual basis accounting by Indonesia’s local governments. *International Review of Public*

*Administration*, 24(2), 67–80. <https://doi.org/10.1080/12294659.2019.1603954>

### **3. PAPER 2: The determinants in public sector accounting reform and the impacts on transparency. The Portuguese case**

#### **3.1. Abstract**

**Purpose:** Based on the institutional theory, this article analyzes the determinants that influence the implementation of public sector accounting (PSA) reform in the Central Public Administration in Portugal and how this implementation affects transparency within these organizations.

**Design/methodology:** The research method is based on a questionnaire on resources, penalties, involvement of professional organizations, and experience and involvement of teams in implementing public sector accounting reforms. The data were analyzed using a structural equation model and the application of the comparative qualitative analysis of fuzzy sets (fsQCA).

**Results:** The main findings indicate that the greatest determinant of implementation of PSA reform in the Portuguese case is experienced and independently engaged teams. Surprisingly, the lack of penalties has a positive influence on the implementation of the PSA reforms, while professional organizations had a negative influence. Our study also concludes that the implementation of PSA reforms unquestionably results in enhanced transparency within the public sector, effectively achieving one of the main goals of IPSAS-driven reforms.

**Originality:** Our study contributes to theory by adding to a better understanding of the determinants influencing the implementation of PSA reforms and their impacts on transparency within public sector organizations. The results highlight the variable nature of organizations and the fact that it is not individual factors in isolation, but their combinations that drive the implementation of reforms and increased transparency in the public sector.

**Research Limitations/Implications:** Our study examined only the central government in Portugal, with a response rate of 34%. Future research should consider analyzing the situation in both local governments and central government, as they are both subject to the same accounting reform.

**Practical Implications:** This study will help managers of public organizations to learn from past experiences and identify determinants that can make a potentially complex accounting reform process run more smoothly.

**Social Implications:** This study can improve citizens' understanding of the Portuguese public sector accounting reform and its role in promoting greater transparency in public administration, thereby facilitating greater engagement between society and government and ensuring that decisions align more effectively with overall social needs.

**Keywords:** Transparency, Public Sector Accounting reforms, Determinants, IPSAS.

**Paper type:** research paper

### 3.2. Introduction

The adoption of accounting reforms in the public sector, particularly the adoption of International Public Sector Accounting Standards (IPSAS), are reshaping how governments manage their organizations (Gourfinkel, 2022; Jorge *et al.*, 2021). Using strong IPSAS guidelines and recommended international best practices, these reforms offer governments an opportunity to enhance the quality and reliability of their financial information. This improved data can be used for decision-making, boosting fiscal transparency, and improving the performance of the public sector (IPSASB, 2021).

IPSAS plays a crucial role in enhancing transparency, which involves financial information such as budgets, financial statements, and other data that reveal how resources are used (Cucciniello *et al.*, 2017; Grimmeliikhuijsen and Welch, 2012). IPSAS also seeks to standardize public sector accounting internationally, making financial information more comparable across countries and reducing differences in accounting principles accepted by nations (Schmidhuber *et al.*, 2022).

As a result, many countries worldwide have initiated efforts to adopt IPSAS (Christiaens *et al.*, 2015; Jones and Caruana, 2014) with support from international governmental organizations such as the United Nations (UN), the Organization for Economic Co-operation and Development (OECD), and the European Commission (EC) (Grossi and Soverchia, 2011). These organizations have allocated substantial resources to promote IPSAS adoption,

creating a ripple effect. Additionally, other international governmental organizations including the World Bank, the International Monetary Fund (IMF), and the Asian Development Bank have actively encouraged IPSAS adoption (Brusca and Martínez, 2016).

On one hand, adopting IPSAS can enhance information regarding the future impact of government policies and regulatory frameworks. This leads to increased transparency and accountability in resource allocation, total government activity costs, and the provision of government statistics. As a result, it facilitates better financial and investment decision-making for information users (OECD and IFAC, 2017). On the other hand, implementing new public sector accounting reforms, including all related information system processes, is a time-consuming and costly endeavor. It demands training for public sector managers and calls for changes in certain macroeconomic values, such as the organizational culture (OECD and IFAC, 2017).

The literature highlights determinants that stimulate the implementation of IPSAS, including external pressures (Grossi and Soverchia, 2011; Lokuwaduge, 2016; Vaz, 2023; Yapa and Ukwatte, 2015), financial crises (Agasisti *et al.*, 2018; Gomes, Fernandes, *et al.*, 2015), internal pressures (Gomes, Fernandes, *et al.*, 2015; Haldma and Kenk, 2014; Jones and Caruana, 2014; Lentner *et al.*, 2020), modernization (Caruana, 2017; Jorge *et al.*, 2021; Kowalczyk and Caruana, 2022), consultants' involvement (Haldma and Kenk, 2014; Nakmahachalasint and Narktabtee, 2019), and accounting expertise (van Helden and Reichard, 2018; Hyndman and Liguori, 2018).

Constraints in the IPSAS implementation process are also reported, and include the political environment and commitment (Fuentes and Borreguero, 2018; Nakmahachalasint and Narktabtee, 2019), the complexity of standards (Hladika, 2022; Santis *et al.*, 2019), the absence of visible benefits, and a lack of penalties for institutions (Ada and Christiaens, 2017; Bruno and Lapsley, 2018). Other aspects include a deficiency in accounting knowledge and skills (Kowalczyk and Caruana, 2022; Rajib *et al.*, 2019), limitations in information technologies (Hladika, 2022; Lutilsky *et al.*, 2016; Tóth, 2020), the financial constraints facing most governments (Lentner *et al.*, 2020), and a shortage of human resources (Eriotis *et al.*, 2012; Inkina, 2019; Mohammadrezaei *et al.*, 2013).

Although the literature about public sector accounting reform processes is vast, especially regarding adoption of the IPSAS (Liberato *et al.*, 2023; Schmidhuber *et al.*, 2020), studies

addressing the impacts of implementation of reforms are rare, and even fewer explore the transparency of these processes. There is thus still a considerable gap in understanding the determinants in public sector accounting (PSA) reform and the impacts on transparency of the organizations.

Portugal faced significant repercussions from the global economic and financial crisis of 2009, prompting the need to seek financial aid from the Troika (comprising the International Monetary Fund, European Central Bank, and the European Commission) in 2011. Subsequently, Portugal entered into a "Memorandum of Understanding" outlining specific economic policy conditions. Among other demands, the Troika also emphasized the need for enhanced transparency in public sector financial management and accounting. Portugal initiated the IPSAS-based public sector accounting reform in 2015 by approving the Accounting Standardization System for Public Administrations (ASSPA)<sup>1</sup>. It is applied to all sectors of the public administration, including local governments. Although it was the authority tasked to implement the PSA reforms, the Ministry of Finance opted to delay the introduction of ASSPA until January 2018 (as per Decree-law 85/2016). This decision was made in recognition of the insufficiently established technical, legal, and institutional prerequisites necessary for public sector entities to adequately compile their initial annual accounts under ASSPA. A clear understanding of the constraints and stimuli in implementing PSA reforms remains until today. Hence, Portugal is an interesting example and serves as a compelling model for other nations undergoing reforms, as it is at the fore in the EU for embracing an IPSAS-driven system.

In particular, the objective of this study is to examine the determinants that influence the implementation of ASSPA in the Central Public Administration and, subsequently, how this implementation impacts transparency within these organizations, which is a primary goal of PSA reforms.

The research method is based on a questionnaire to all financial managers in Portugal's Central Public Administration disseminated in 2022. The data were then analyzed using a structural equation model and the application of the comparative qualitative analysis of diffuse sets (fsQCA).

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<sup>1</sup> Translation of SNC-AP – Sistema de Normalização Contabilística para as Administrações Públicas

Our main findings indicate that determinants such as weak enforcement of penalties for non-compliance with ASSPA and having experienced and engaged teams independently contribute positively to the reform's implementation, which enhances transparency in the public sector. Moreover, the findings indicate that when combining human and technological resources with professional organizations' actions, implementing public sector accounting reform, and not imposing penalties, transparency increases, regardless of team experience and involvement.

This study contributes to the understanding of PSA reforms based on an IPSAS-driven system, adding empirical evidence from a country currently transitioning to international accounting standards. Notably, there is scarce prior research conducted on the Portuguese case (Jorge *et al.*, 2021; Vaz, 2023), while there are numerous studies available on this topic for other countries (Brusca and Martínez, 2016; Carini *et al.*, 2019; Georgescu, 2021; Haija *et al.*, 2021; Lentner *et al.*, 2020).

By integrating transparency as an outcome variable in our analysis we seek to investigate the overarching impact of these reforms on the transparency of the public sector. While transparency may not be a direct consequence of reforms in all cases, we contend that understanding the mechanisms through which reforms affect transparency is vital for policymakers and practitioners alike (Nakmahachalasint and Narktabtee, 2019; Tóth, 2020). We also recognize that there are both positive and negative determinants affecting the implementation process. Therefore, by examining the relationship between determinants and implementation outcomes, we provide insights into the complex dynamics surrounding PSA reforms.

This article has the potential to inspire countries with similar institutional characteristics that have not yet adopted IPSAS to consider its adoption or adaptation. The literature (Ada and Christiaens, 2017; Brusca and Martínez, 2016; Eriotis *et al.*, 2012; Ismail *et al.*, 2018; Santis *et al.*, 2019) identifies determinants that have typically been analyzed in isolation rather than in a configurational manner. It is important to recognize that organizations do not operate uniformly and that the factors encouraging and/or compelling them to implement reforms like ASSPA or IPSAS can vary.

Following this introduction, we provide background and report our literature review in Section 2, formulate our hypotheses in Section 3, outline the research design in Section 4, and

present results and discussion in Section 5. Section 6 concludes the paper and suggests directions for further research.

### **3.3. Public sector accounting reforms in Portugal**

Until the 1990s public sector accounting in Portugal was characterized by the provision of budgetary information, which made it impossible to strictly control public spending, with the main concern being accountability and compliance with law. With the Administrative and Financial Reform of the State, which began in 1990, public sector accounting in Portugal began a new cycle with the approval of the Public Sector Accounting Plan (POCP). Various sector-specific plans, such as POCAL for local government, POCMS for health, POCE for education, and POCISSSS for social security entities, were developed from the overarching POCP framework.

The POCP and subsequent sector-specific plans stemmed from the pre-existing business accounting framework, which was replaced when Portugal transitioned to an IFRS-based system in 2009 (the SNC). Since then the PSA system based on the POCP has lost its foundational underpinnings, leading to its gradual obsolescence, fragmentation, and inconsistency. Over recent years, various entities within the Portuguese public sector have adopted different approaches, including direct adoption of IFRS, utilization of business accounting systems based on IFRS or non-profit accounting standards, and continued use of the five distinct PSA plans (Jorge *et al.*, 2021).

Portugal faced significant repercussions from the global economic and financial crisis of 2009, prompting it to seek financial aid from the Troika (comprising the International Monetary Fund, European Central Bank, and European Commission) in 2011. This resulted in the signing of a "Memorandum of Understanding" that outlined specific economic policy conditions. Among these conditions, the lenders emphasized the need for enhanced accountability in public sector financial management and accounting practices. Consequently, Portugal was compelled to reform its existing public sector accounting system in favor of adopting the IPSAS.

In mid-2012 a new governance structure for the accounting standard-setting commission was established through Decree-law 134/2012. This legislation assigned the same entity to be

responsible for both business and public sector accounting. However, it distinctly outlined the formation of a separate committee for Public Sector Accounting Standards (CNC-AP). The primary objective of this committee was to develop the new System of Accounting Standards for Public Administrations (ASSPA) based on IPSAS. The process of crafting this system began in 2013 and was officially enacted into law in September 2015 through Decree-law 192/2015 (Ministério das Finanças, 2015). It is mandated to be applied across all sectors of public administration, including local governments.

The ASSPA consists of a conceptual framework, a chart of accounts, and 27 accounting standards. Among these standards, 25 are based on IPSAS and pertain to financial accounting and reporting, while one standard focuses on budgetary accounting and reporting, and another addresses management accounting. The conceptual framework mirrors that of the IPSASB, ensuring alignment with international standards. The standards concerning financial accounting and reporting are derived from IPSAS, albeit with minor adjustments to accommodate specific requirements. Additionally, the chart of accounts and financial statement templates were modified from those used in IFRS-based business accounting, tailoring them to the needs of the public sector.

Despite being the authority responsible for PSA reforms, the Ministry of Finance opted to delay the introduction of ASSPA until January 2018 (as per Decree-law 85/2016). This decision was made in recognition of the insufficiently established technical, legal, and institutional prerequisites necessary for public sector entities to adequately compile their initial annual accounts under ASSPA. Additionally, the monitoring process overseen by UniLEO was not effectively operationalized, as highlighted in a report by the Court of Auditors in 2019 (Tribunal de Contas, 2019). Meanwhile, the rollout of ASSPA in local government entities was postponed to 2020, as stipulated by Decree-law 84/2019 (Presidência do Conselho de Ministros, 2019).

Previous studies have shown that external and regulatory pressures are the main determinants of the adoption of Portuguese PSA reforms. Albuquerque *et al.* (2017) found that accounting harmonization with international standards, such as IPSAS, is driven by external pressures, including international agreements and the need to comply with the requirements of international organizations such as the IMF and the European Union. In the same view, Marques and Pinheiro (2018) concluded that as a member of the European Union, Portugal

has faced pressure to harmonize its accounting practices with international standards, which may have driven the adoption of IPSAS or ASSPA.

Other authors point to the determinants of accountability and transparency in the implementation of PSA reforms in Portugal. The conclusions of Almeida *et al.* (2019) state that the implementation of IPSAS or ASSPA is often justified by the need to increase transparency and accountability in the public sector, providing clearer and more understandable financial information for stakeholders. The adoption of IPSAS can improve the quality of financial information in the public sector in Portugal, promoting greater transparency and accountability in the management of public resources, according to findings of Oliveira and Branco (2016).

The successful implementation of IPSAS or ASSPA requires adequate technical and financial resources, as well as organizational capacity to manage the transition and maintain the accounting systems in the long term (Gonçalves and Ramos, 2017), highlighting the importance of determinants such as technical capacity in the implementation of PSA reforms in Portugal. In addition, Ferreira *et al.* (2021) found that the lack of financial resources and technical expertise can pose significant challenges to the adoption of IPSAS or ASSPA in Portugal, especially for public sector organizations with limited resources.

In a study on the role of pilot organizations in implementing PSA reforms in Portugal, Jorge, Brusca, *et al.* (2019) concluded that pilot experiences provide feedback on the main difficulties experienced in implementing a new PSA system, and that they help to define an overall strategy to overcome these problems and to improve the system to be generally and finally put into practice. Paula Vaz (2023) analyzed the determinants of disclosure of financial information in the Portuguese public entities and found that implementation of PSA reforms allowed a significant increase of the level of disclosure of financial information. The study also concluded that the solvency and the ratio of the budget balance of the entities positively influence the level of disclosure of financial information.

### **3.4. Literature and hypotheses**

#### ***Institutional theory and transparency in public institutions***

Institutional theory suggests that various societal systems such as political, educational, cultural, and economic frameworks can influence economic entities through three forms of institutionalization: coercive isomorphism, normative pressures, and mimetic processes (DiMaggio and Powell, 1983). This theory gained prominence in the 1970s, particularly through the pioneering research of Meyer and Rowan (1977), who proposed that organizations seek legitimacy and, therefore, adapt to their surroundings.

According to institutional theory, accounting practices are seen as institutions within organizations, representing socially accepted routines and norms that shape the behavior of individuals involved (Hopwood, 1994). In this context, public accounting transcends its traditional role as a mere technical instrument for economic decision-making and is recognized as a set of social and institutional practices influenced by cultural factors and prevailing social values. Many studies have utilized institutional theory to explore the adoption of reforms in PSA. Noteworthy examples include the investigations conducted by ter Bogt and van Helden (2000), Harun and Kamase (2012), Hidayah and Zarkasyi (2017), and Jayasinghe *et al.* (2021).

The implementation of reforms in public accounting is often driven by a range of factors, including external pressures, demands for greater transparency and accountability, and the pursuit of modernization and harmonization with international standards (ACCA, 2017). The need for increased transparency and financial accountability of government has been amplified by global economic crises, underscoring the importance of robust and high-quality accounting systems. In this regard, reforms aim not only to enhance the quality of financial information but also to strengthen citizens' trust in public institutions and promote sustainable development (Erkkilä, 2020). However, the successful implementation of such reforms faces considerable challenges, including technical, political, and cultural issues, highlighting the inherent complexity in transforming the public accounting sector to meet evolving demands and expectations (Asaduzzaman and Virtanen, 2021).

The concept of transparency is introduced by Armstrong (2005), who asserts that it is closely tied to the public's unrestricted access to timely and reliable information regarding decisions made in the public sector and its corresponding performance. Various definitions of a transparent entity can be derived from this concept. Caamaño-Alegre *et al.* (2013) argue that a transparent entity is one that ensures not only the disclosure of information but also its comprehension by its users. Islam (2006) goes further, stating that a transparent entity is one

that also discloses its financial data in a timely manner. Similarly to Caamaño-Alegre *et al.* (2013), Araújo and Tejedo-Romero (2016) also advocate for the concept of disclosure and comprehension, relating it to its unrestricted access by various stakeholders, including citizens. The concept of a transparent entity can thus be defined from various perspectives, but they all converge to a common idea: an entity is transparent if it discloses information regarding its management methods (economic, financial, social, and political) and corresponding performance, making this information accessible in a timely way and understandable to any stakeholder, whether internal or external to the entity (Vaz, 2023).

The imperative for enhanced transparency and accountability in government financial reporting has been accentuated by the global financial crisis, which depleted government resources and underscored the inadequacies of cash-based financial statements in predicting and averting sovereign liquidity crises (ACCA, 2017). Consequently, many countries have committed to adopting international standards such as IPSAS on either a cash or accrual basis, with varying implementation timelines. While most OECD member states have made strides in IPSAS adoption, technical and political challenges persist in several countries (Adhikari and Gårseth-Nesbakk, 2016; Bekiaris and Paraponti, 2023).

Transparency is fundamental to robust public institutions and is intricately linked to democratic accountability (Erkkilä, 2020). Fostering trust among citizens through transparent processes is essential for sustainable development (Asaduzzaman and Virtanen, 2021). Transparency also entails ensuring public access to information, achieved through comprehensive disclosure and impartial presentation of the pertinent information needed for informed economic decision-making. Financial statements within the public sector realm should thus be easily interpretable.

The International Accounting Standards Board (IASB) developed a Framework for the Preparation and Presentation of Financial Statements, aimed at facilitating transparency and enhancing the interpretability of financial statements (IASB, 2018). IPSAS construction seeks to bolster transparency by improving the comparability and quality of financial information, thereby empowering investors and market participants to make well-informed economic decisions (IASB, 2010). Empirical studies corroborate that the implementation of international accounting standards coupled with strengthened accountability mechanisms has indeed augmented transparency in the public sector (Atuilik and Salia, 2019; Brusca and

Martínez, 2016; Gourfinkel, 2022; Mattei *et al.*, 2020; Sour, 2022; Tawiah, 2022; Thanh *et al.*, 2020).

### ***Human and information technologies (IT) resources***

Human resources are the pillar of any organization, and weakness in HR can compromise any type of reform, whether accounting or not. In some cases additional staff will need to be involved to ensure the timely and smooth implementation of the reform without compromising the day-to-day functioning of the current systems (Fuentes and Borreguero, 2018; van Helden and Reichard, 2018; Hladika, 2022; Ismaili *et al.*, 2021; Jones and Caruana, 2014). Along with a lack of human resources, the lack of knowledge and training are identified in previous studies as barriers to the implementation of accounting reforms (Brusca and Martínez, 2016; Elmezughi and Wakil, 2018; Hladika, 2022). Studies have analyzed the influence of a lack of previous experience or insufficient knowledge about accounting reform, as the complexity of the norms has been observed in several realities (Brusca and Martínez, 2016). Challenges are due mainly to difficulties in interpreting some of the technical criteria for implementing the standards (Elmezughi and Wakil, 2018; Hladika, 2022) and uncertainties surrounding accrual accounting (Bruno and Lapsley, 2018; Santis *et al.*, 2019). Poor technical support is another notable obstacle to the implementation of an accounting system, especially the absence of an IT system (Bruno and Lapsley, 2018; Gigli *et al.*, 2018; Hladika, 2022; Jorge, Caruana, *et al.*, 2019; Lutilsky *et al.*, 2016).

Several authors argue that implementation requires many system changes to accommodate the accounting process, resulting in a strong obstacle, as this implementation sometimes creates an unwanted dependency on a commercial software provider (Caruana, 2017; Klimavičienė and Mykolaitienė, 2007). Our consideration of the (un)availability of the necessary resources leads us to posit:

*H1: The lack of human and IT resources negatively influences the implementation of accounting reform.*

Technology can be used to create transparency portals, making the availability and sharing of public information among all interested citizens easier (Baraldi *et al.*, 2019; Madkur and

Paletta, 2021). Portals offer a way of assessing whether public acts are being practiced efficiently and whether they correspond to the wishes of citizens (responsiveness), that is, whether the terms of the "social contract" are being met (Bairral *et al.*, 2015). Human resources also play an important role in promoting transparency. Public officials should be empowered to handle information transparently and responsibly, ensuring that data are disclosed appropriately and securely (del Sol, 2013). In a study on corruption, Kaufmann, Mehrez, and Gurgur (2019) found that the level of transparency is controlled by public officials. In the absence of any restrictions established by the institution, the public official can establish a standard of service and transparency. To check this factor, we propose the following hypothesis:

*H2: The lack of human and IT resources negatively influences increased transparency.*

### ***Lack of penalties***

Empirical studies report that the lack of penalties (Harun and Kamase, 2012; Sulu-Gambari *et al.*, 2018) and the absence of performance-based rewards have greatly eroded the motivation of public administrators to engage in the process of change and become familiar with new ideas (Rajib *et al.*, 2019). The benefits enumerated by the adoption of IPSAS are sometimes reversed in the form of various arguments, and the reasons for non-adoption are compounded by the absence of any penalties for non-adoption of such standards. It is up to each government to decide whether or not to adopt the standards, with or without modifications to the local framework (IFAC, 2021). Thus, we formulate the following hypothesis:

*H3: The lack of penalties negatively influences the implementation of accounting reform.*

The lack of sanctions can also affect transparency in the PSA reforms. As the lack of incentive to comply contributes to the non-adoption of transparent practices and promotes distrust among the public, the public may perceive this as a sign of lack of accountability and even as a threat to informed decision-making (Puron-Cid and Bolívar, 2018). As there are no penalties for lack of adequate disclosure, stakeholders may have limited access to relevant financial data, which impairs the ability to assess the efficiency and effectiveness of

government programs (Relly and Sabharwal, 2009). To test this relationship, we posit the following:

*H4: The lack of penalties has a negative influence on the increase in transparency.*

### ***Experience and involvement of teams***

The literature shows that the level of education of accounting department staff and the level of specific training are important positive determinants in explaining the alternative implementation scenarios adopted by different organizations (Eriotis *et al.*, 2012; Hyndman and Liguori, 2018). Eriotis, Stamatiadis, and Vasiliou (2012) analyzed the implementation of accrual and cost financial accounting practices in public hospitals in Greece and concluded that the level of education of the staff of the accounting department and the level of specific training are important positive factors to explain the recourse to the alternative implementation scenarios adopted by different public hospitals. Thus, we formulate the following hypothesis:

*H5: The experience and involvement of the teams contribute positively to the implementation of the accounting reform.*

Experienced and motivated teams play a pivotal role in enhancing transparency within public administration. Their wealth of experience ensures that financial data are accurate, comprehensive, and comprehensible to the public at large. Moreover, the active involvement of teams and the size of teams assures that financial practices remain transparent and compliant with established guidelines (Vaz, 2023). By disseminating financial information appropriately, the teams help ensure that public funds are managed and expended responsibly (Eriotis *et al.*, 2012; Hyndman and Liguori, 2018).

Studies conducted by the International Federation of Accountants underscore the significance of experienced teams in bolstering transparency (IFAC and CIPFA, 2014). The experience and dedication of experienced teams are indispensable in nurturing public trust in governmental institutions (The World Bank, 2015).

It is therefore evident that the experience and involvement of teams play pivotal roles in fortifying financial transparency within public administrations, contributing substantially to more accountable management of public resources and the cultivation of greater confidence in governmental institutions. Thus, we formulate the following hypothesis:

*H6: The experience and involvement of teams contribute positively to increased transparency.*

### ***Pressure from professional organizations***

Studies have demonstrated that professional organizations wield a strong influence over accounting policies and practices, at both the national and international levels (Pires *et al.*, 2019). Their recommendations and guidelines often reflect the consensus of industry experts and practitioners, lending legitimacy to proposed PSA reforms. Furthermore, these organizations have the power to mobilize resources and technical expertise to support the effective implementation of accounting changes (Ada and Christiaens, 2017). In the Portuguese context professional organizations such as the Order of Chartered Accountants (OCA) play a prominent role in advocating for high-quality accounting standards and promoting financial transparency and accountability (Gomes, Fernandes, *et al.*, 2015). The OCA, for example, actively engages in debates on accounting reforms, providing expert insights and collaborating with governmental authorities in policy formulation.

Moreover, pressure from professional organizations often creates an environment in which accounting professionals themselves feel compelled to adopt updated practices and standards. This is because compliance with the guidelines and regulations established by professional organizations is often seen as a requirement to maintain credibility and reputation in the industry (Jones and Caruana, 2014). Pressure from professional organizations plays a relevant role in promoting and implementing PSA reforms, providing technical expertise, legitimacy, and incentives for compliance. Thus, we formulate the following hypothesis:

*H7: The pressure from professional organizations contributes positively to the implementation of the accounting reform.*

Professional organizations often collaborate with regulatory authorities and governmental agencies to develop and enforce regulations that promote transparency. Previous studies emphasize the role of professional organizations in advocating for regulatory reforms that enhance transparency and disclosure requirements (Jones and Caruana, 2014). In Portugal this collaborative approach has led to the adoption of international accounting standards and the implementation of mechanisms to improve transparency of reporting (Vaz, 2023).

In addition, the influence of professional organizations extends beyond regulatory advocacy to include educational initiatives and professional development programs that emphasize the importance of transparency and ethical conduct. By providing training and resources to accounting professionals, these organizations contribute to a culture of transparency and accountability within the profession (Pires *et al.*, 2019).

According to earlier studies, the professional organizations play a vital role in enhancing transparency and accountability in accounting practices. Thus, we formulate the following hypothesis:

*H8: The pressure from professional organizations contributes positively to increased transparency.*

### ***Public sector accounting reform***

Several studies indicate that the accounting reforms that have taken place in the PSA reform, with a special focus on the implementation of IPSAS, have led to increased transparency in the PSA (Atuilik and Salia, 2019; Brusca and Martínez, 2016; Gourfinkel, 2022; Mattei *et al.*, 2020; Sour, 2022; Tawiah, 2022; Thanh *et al.*, 2020). For example, Ofoegbu (2014), believes that the use of accrual basis of accounting in the PSA as a framework for reporting is best suited to serve the information needs of its user, concluding that governments implementing accrual basis IPSASs stand a better chance of achieving the increased transparency and accountability expected of a good governance system compared to their counterparts reporting on the cash basis accrual system (Atuilik and Salia, 2019). One of the purposes foreseen in the ASSPA is precisely to increase the transparency of public administration bodies. Therefore, we test the following hypothesis:

H9: The implementation of the accounting reforms contributes positively to increased transparency.

### Conceptual model

As mentioned above, combining the results from various investigations, we suggest the following research model:

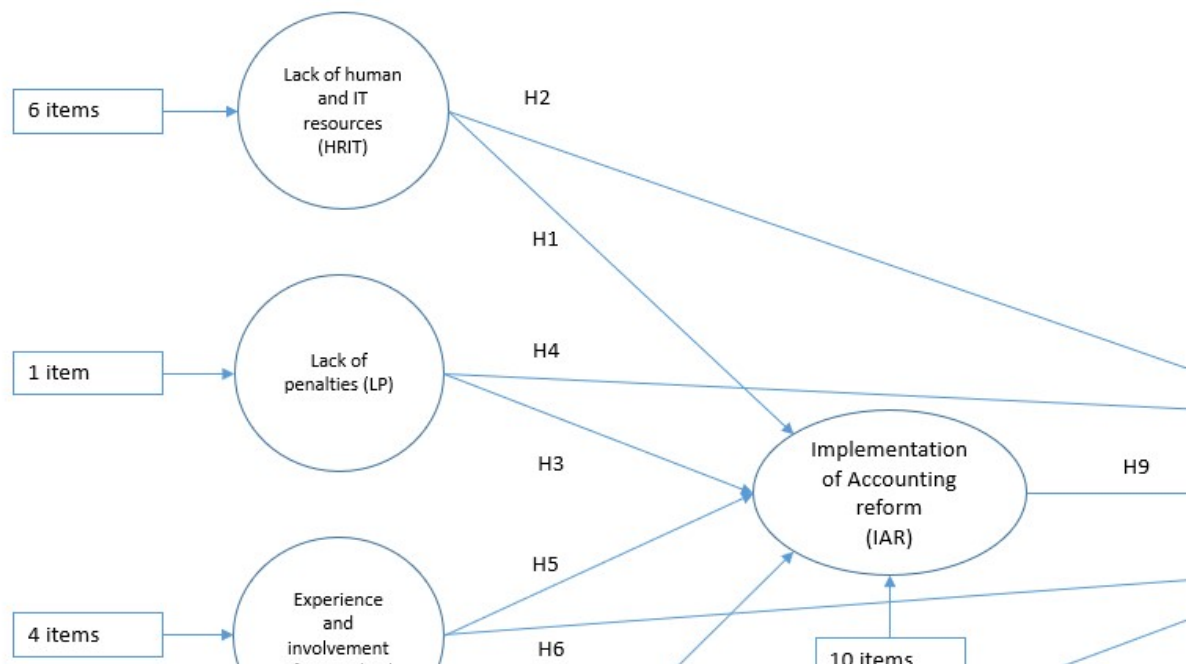


Figure 1: Conceptual model

Source: Elaborated by authors

### 3.5. Research design

#### Sample and data collection

The research methodology utilizes a survey addressed to financial managers in the Portuguese central public administration. First, the questionnaire was applied to three pilot entities so that the interpretation of each question could be validated before being applied to the general

sample. Our population is the set of organisms that make up the central public administration, comprising all the Ministries and Governmental bodies: Internal Administration; Agriculture and Food; Environment and Climate Action; Science, Technology, and Higher Education; Territorial Cohesion; Culture; National Defense; Economy and Sea; Education; Finance; Infrastructures and Housing; Justice; Foreign Affairs; Government Bodies; Health; and Labor, Solidarity, and Social Security, for a total of 495 organizations (Directorate-General for Budget, 2022).

The questionnaires have four sections. The first collected general information about the organization's respondents, the second collected information on the level of implementation of the ASSPA in each organism, the third requested the identification of determinants that the entity verified during the process of implementation of the ASSPA, and finally, the perception of compliance with the objectives was requested – transparency – provided for in the Decree-Law. These last two sections used a five-point Likert scale (1 corresponding to “totally disagree” and 5 to “totally agree”).

The questionnaire was released in September 2022 via Qualtrics along with a cover letter to explain the purpose of the research. To increase the response rate, follow-up reminders were sent every month until March 2023. The final response rate was about 34% (171 responses) that answered the questionnaire in full. All responses were confidential.

All government areas responded to the questionnaire, with the Ministry of Science, Technology, and Higher Education for most of the responses (24%), followed by the Ministry of Health and the Ministry of Labor, Solidarity, and Social Security with 12% of responses each. Most of the responding bodies had already implemented the standards for financial accounting (73%) and budget accounting (80%), while management accounting is lagging in its implementation (12%), with the vast majority being in the implementation planning phase (45%) or in the testing phase (17%).

### ***Measures***

To capture the nuances of resources, penalties, involvement of professional organizations, and experience and involvement of teams in implementing public sector accounting reform, we

developed original measurement scales for the key variables. These scales were informed by a thorough review of literature as detailed in Table 1.

**Table 1: Measurement of the variables that contribute to the implementation of the accounting reform**

<b>Cod.</b>	<b>Variable</b>	<b>Items from questionnaire</b>	<b>Main findings in the literature</b>
HRIT	Lack of human and IT resources	<ol style="list-style-type: none"> <li>1. There were sufficient human resources in the organization to implement the standards.</li> <li>2. The organization has a single database that holds all issues related to financial, budgetary, and management accounting.</li> <li>3. The implementation team has adequate equipment and infrastructure for the implementation of the new regulations.</li> <li>4. Top management has appropriate qualifications/skills for the implementation of the new regulation.</li> <li>5. There was difficulty in interpreting the norms, conditioning their implementation.</li> <li>6. Lack of visibility of benefits influenced implementation.</li> </ol>	(Bruno and Lapsley, 2018; Caruana, 2017; Fuentes and Borreguero, 2018; Gigli <i>et al.</i> , 2018; van Helden and Reichard, 2018; Hladika, 2022; Ismaili <i>et al.</i> , 2021; Jones and Caruana, 2014; Jorge, Caruana, <i>et al.</i> , 2019; Klimavičienė and Mykolaitienė, 2007; Lutilsky <i>et al.</i> , 2016).
LP	Lack of penalties	<ol style="list-style-type: none"> <li>1. Penalizing the entity for non-implementation of the standards would have ensured faster implementation.</li> </ol>	(Harun and Kamase, 2012; Sulu-Gambari <i>et al.</i> , 2018).
EIT	Experience and involvement of teams	<ol style="list-style-type: none"> <li>1. The accounting literacy of the implementation team was an enabler in the implementation of the standards.</li> <li>2. The professional experience of the members of the implementation team benefited the implementation of the standards.</li> <li>3. There was a commitment from top management to the implementation of the standards.</li> <li>4. The implementation team had a voluntary and proactive intervention in the process.</li> </ol>	(Eriotis <i>et al.</i> , 2012; Hyndman and Liguori, 2018; Ismail <i>et al.</i> , 2018).
PPO	Pressure from professional organizations	<ol style="list-style-type: none"> <li>1. The implementation of the standards has benefited from the actions of professional organizations.</li> </ol>	(Ada and Christiaens, 2017; Gomes, Fernandes, <i>et al.</i> , 2015; Steccolini <i>et al.</i> , 2020).

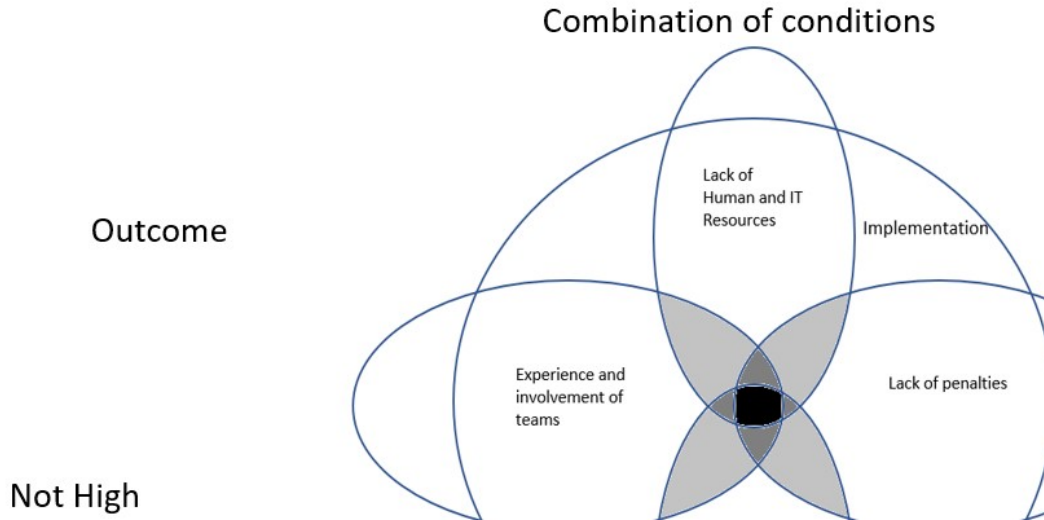
*Source : Elaborated by authors*

### **Data analysis**

The data are treated with structural equation modeling (SEM). SEM is a multivariate method of analysis that allows the identification of causal relationships between variables using multiple regression analyses. One of the strengths of SEM is the ability to construct latent variables or constructs, which are variables that are not directly measurable but can be estimated through measured variables, that is, it allows multiple measures to be associated with a single latent construct (Brusca and Martínez, 2016). Using the items of the

questionnaire we constructed four latent variables: resources; experience and involvement of teams; ASSPA implementation; and transparency, as well as two measured variables: lack of penalties; and pressure from professional organizations. We analyzed the effect of independent variables on the dependent variables using the Smart PLS4 (Ringle *et al.*, 2022). All the measurement scales and observation variables were subjected to Exploratory Factor Analysis (EFA) in which the compatibility testing was performed using the Kaiser-Meyer-Olkin (KMO) measure. According to Hair, Black, Babin, Anderson, and Tatham (2006), when KMO is between 0.5 and 1 the factors are compatible. At the same time, the correlation testing of the observed variables in each scale was performed using the test of Barlett. When the significance (sig.) is less than or equal to 0.05, the variances are equal across groups or samples. Cumulative variance testing was also performed, which showed the percentage change in the factors explained by the observation variables.

To gain a comprehensive understanding of disruptive innovation implementation we adopted a two-stage approach. First, PLS-SEM was employed to establish the overall significance of relationships between key variables. This initial screening process laid the groundwork for a more focused analysis using a fuzzy qualitative set of comparative analysis (fsQCA), by which we identified the specific configurations of factors that are most critical for successful implementation. FsQCA is a set-theoretic analytic technique that allows for a refined empirical investigation of causal complexity through the logic of set theory (Misangyi *et al.*, 2017). It is equipurpose, to allow configurations of different and equally effective conditions that can lead to the same result, and uses asymmetric causality, which allows for configurations that lead to a different result from the configurations, leading to their negation. In this study, we assume that resources, penalization for non-implementation, team experience and involvement, professional organizations, ASSPA implementation, and transparency could be combined in various ways, as represented by the different shaded areas in the Venn diagram in Figure 2, to achieve a high influence in transparency. As mentioned above, fsQCA assumes causal asymmetry, which means that the explanation for high transparency is not necessarily the logical opposite of the explanation for low transparency. Thus, this study also examined the combinations of the five antecedent conditions that lead to low transparency ( $\sim ht$ ).



**Figure 2. Venn diagram of the combination of conditions**

*Source: Elaborated by authors*

### ***Calibration***

FsQCA is rooted in the concept of set membership. Thus, analyzing data in fsQCA requires the transformation of the original variables into fuzzy sets (i.e., a set of membership scores ranging from zero (full exclusion from a set) to 1 (full inclusion)) (Ragin, 2008). This process, termed calibration, requires specifying three different anchors: one to define full membership, another to define full non-membership, and a cross-over point (Ragin, 2008). In line with recent research (Woodside, 2013) for calibrating each of the variables (both the conditions and the outcome) in the original data into a fuzzy set scale, we defined these anchors using three values: full membership was set at the original value that covered 95% of the data values, the cross-over point was set at the original value that covered 50% of the values, and full non-membership was set at the original value that covered 5% of the values.

## **3.6. Results and discussion**

### ***Statistics analysis***

To test our conceptual model we chose to use SEM through the use of PLS, a variance-based structural equation modeling technique, using the SmartPLS 4 software (Ringle *et al.*, 2022). The analysis and interpretation of the results followed a two-step approach. We first evaluated the reliability and validity of the measurement model and then evaluated the structural model. To assess the quality of the measurement model, we examined the individual indicators of reliability, convergent validity, internal consistency reliability, and discriminant validity (Hair *et al.*, 2017). The results showed that the standardized factor loadings of all items were above 0.6 (with a minimum value of 0.627) and all were significant at  $p < 0.001$ , thereby providing evidence for the reliability of the individual indicator (Hair *et al.*, 2017). The reliability of internal consistency was confirmed with the values of Cronbach's alphas. All constructs and composite reliability (CR) values exceeded the cutoff point of 0.7 (see Table 2) (Hair *et al.*, 2017).

**Table 2: Composite reliability, extracted mean-variance, correlations, and discriminant validity checks**

LATENT VARIABLES	$\alpha$	CR	AVE	1	2	3	4
HRIT	0.792	0.852	0.500	<b>0.700</b>	0.784	0.392	0.438
EIT	0.833	0.889	0.669	0.626	<b>0.818</b>	0.518	0.450
IAR	0.946	0.956	0.688	0.340	0.476	<b>0.829</b>	0.368
TPR	0.920	0.940	0.758	0.387	0.404	0.353	<b>0.871</b>

Note:  $\alpha$  – Cronbach’s alpha; CR - Composite reliability; AVE -Mean-variance extracted. The numbers in bold are the square roots of AVE. Above the diagonal elements are the HTMT relationships.

Source: *Elaborated by authors*

Convergent validity was also confirmed for three main reasons. First, as noted above, all items were positive and significant in their respective constructs. Second, all constructs had CR values higher than 0.80. Third, as shown in Table II, the extracted mean-variance (AVE) for all constructs exceeded the cut-off of 0.5 (Bagozzi and Yi, 1988). Discriminant validity was assessed through two approaches. We used the Fornell and Larcker (1981) criterion. This criterion requires that the square root of the stroke of a construct (shown diagonally with bold values in Table 2) be greater than its highest correlation with any construct (Fornell and Larcker, 1981). Table 2 shows that this criterion is satisfied for all constructs. Next, we used the Heterotrait-Monotrait Ratio of Correlations (HTMT) criterion (Hair *et al.*, 2017; Henseler *et al.*, 2015). As Table 2 shows, all indicators are below the most conservative cut-off value of 0.85.

The structural model was evaluated by the sign, magnitude, and significance of the coefficients of the structural path; the magnitude of the  $R^2$  value for each endogenous variable as a measure of the predictive accuracy of the model; and Stone-Geisser  $Q^2$  values as a measure of the model's predictive relevance (Hair *et al.*, 2017). However, we checked the collinearity before evaluating the structural model (Hair *et al.*, 2017). Variance Inflation Factors (VIF) values ranged from 1.093 to 1.916, below the indicative critical value of 5 (Hair *et al.*, 2017). These values do not indicate collinearity. The coefficients of determination  $R^2$  for the two endogenous variables of accounting reform implementation and transparency were 26.3% and 22.5%, respectively. These values exceed the cut-off value of 10% (Falk and Miller, 1992). We used bootstrapping with 5,000 subsamples to assess the significance of parameter estimates (Hair *et al.*, 2017).

**Table 3: Evaluation of the structural model**

PATH	PATH COEFFICIENTS (B)	STANDARD ERRORS	T STATISTICS	P VALUES
HRIT→ IAR	0.091	0.061	1.488	0.137
HRIT→ TRP	0.203	0.112	1.801	0.072
LP → IAR	0.159	0.060	2.661	0.008
LP → TRP	0.020	0.091	0.217	0.828
PPO→ IAR	-0.138	0.061	2.254	0.024
PPO→ TRP	0.038	0.088	0.435	0.664
EIT→ IAR	0.443	0.077	5.764	0.000
EIT→ TRP	0.179	0.102	1.762	0.078
IAR→ TRP	0.198	0.088	2.261	0.024

Source: *Elaborated by authors*

Table 3 shows that the variable for human and IT resources does not affect the implementation of accounting reform or the increase in transparency ( $p=0.137$  and  $p=0.072$ , respectively), which means that we cannot confirm H1 and H2 in our analysis. Despite the initial hypothesis suggesting a negative influence of lack of human and IT resource on accounting reform implementation and transparency, contrary to previous studies (Bruno and Lapsley, 2018; Elmezughi and Wakil, 2018; Hladika, 2022; Santis *et al.*, 2019), the statistical analysis did not yield results supporting the hypothesis. The findings suggest that although human and IT resources play a role in organizational processes, their impact on the implementation of PSA reform in Portugal and on increasing transparency is irrelevant, perhaps an indication of organizational capacity to manage the transition in the long term and prepare resources adequately. Additionally, the Portuguese Ministry of Finance opted to delay the introduction of ASSPA until January 2018, justifying the decision with the insufficiently

established technical, legal, and institutional prerequisites necessary for public sector entities to adequately compile PSA reform. Thus, the results of our study lead to the conclusion that the reform was implemented only after the necessary human and technical resources had been put into place.

The lack of penalties for non-implementation of the PSA positively affected the implementation of the accounting reform ( $\beta=0.159$ ,  $p<0.01$ ), contrary to our H3. At odds with the findings of some earlier studies (Harun and Kamase, 2012; Sulu-Gambari *et al.*, 2018) ours demonstrate that the lack of penalties has a positive impact in the implementation of the PSA reforms (Jorge *et al.*, 2021). The absence of sanctions in Portugal may have allowed organizations greater flexibility in adopting PSA reforms. Without the fear of sanctions, the managers of organizations may have greater motivation to adopt the reform, as well as better allocation of resources to implement it. Regarding H4, it is not possible to prove its influence on the increase of transparency ( $p=0.828$ ).

The factor of experience and involvement of the teams has a strong and positive influence on the implementation of the accounting reform ( $\beta=0.443$ ,  $p<0.001$ ), confirming H5, but does not allow us to conclude regarding our H6 – its contribution to increasing transparency ( $p=0.664$ ). In accordance with previous literature (Eriotis *et al.*, 2012; Hyndman and Liguori, 2018), our findings demonstrate that the accounting literacy and professional experience, and the voluntary and proactive involvement of teams have positive impacts on the implementation of PSA reforms in Portugal. The experience and dedication of teams are indispensable in fostering public trust in governmental institutions (The World Bank, 2015). The confirmation of H5 underscores the practical importance of prioritizing human resources education and training and organized teamwork as part of organizational strategies to facilitate the successful implementation of PSA reforms in Portugal.

In our findings the action of professional organizations did not benefit the implementation of the PSA reform ( $\beta=-0.138$ ,  $p<0.05$ ), contrary to H7 and to what is reported in previous empirical studies (Gomes, Carvalho, *et al.*, 2015; Pires *et al.*, 2019). Our findings can be explained by the possibility that in the Portuguese context the goals and recommendations of professional organizations may not always align with the objectives of PSA reform initiatives. Indeed, OCA play a role in advocating for high-quality accounting standards in Portugal (Gomes, Fernandes, *et al.*, 2015) for both corporate and public accounting standards. Nevertheless, differences in priorities or interpretations of best practices might not encourage

the PSA reform. Regarding the influence of professional organizations on the transparency of public administrations, these data did not allow us to conclude, since  $p = 0.078$ . Our H8 thus remains unresolved.

The only variable that directly and positively influences transparency is the implementation of the accounting reform ( $\beta=0.198$ ,  $p<0.05$ ), confirming H9. As did many previous investigations (Atuilik and Salia, 2019; Brusca and Martínez, 2016; Gourfinkel, 2022; Mattei *et al.*, 2020) our study found that the fact of implementing the PSA reform generates in itself a perception of increased transparency in public administration organizations. The positive relationship between the implementation of accounting reforms and increased transparency in Portugal can be attributed to the convergence of reform objectives with the promotion of transparency in the public sector (Vaz, 2023). PSA reforms, especially the adoption of IPSAS and the transition to accrual accounting, are designed to enhance the quality and weight of financial information, thereby facilitating transparent disclosure of government activities and strengthening accountability mechanisms in the public sector and making government authorities more accountable to citizens and other stakeholders.

**Table 4: Bootstrap results for indirect effects**

INDIRECT EFFECT	ESTIMATE	STANDARD ERRORS	T STATISTICS	P VALUES
HRIT → TRP	0.018	0.015	1.191	0.234
LP → TRP	0.032	0.018	1.757	0.079
PPO → TRP	-0.027	0.017	1.571	0.116
EIT → TRP	0.088	0.042	2.099	0.036

*Source: Elaborated by authors*

Table 4 shows that the experience and involvement of teams indirectly influence transparency ( $\beta=0.088$ ,  $p<0.05$ ). The rest are unrelated. We mentioned above that it was not possible to conclude about the influence of this determinant on transparency if analyzed directly. However, if we analyze indirectly, that is, to the extent that the experience and involvement of teams positively influence the implementation and this positively influences transparency, the data support show that it is possible to conclude that the experience and involvement of teams indirect influence transparency. As a result, we are able to confirm H6. As for the other determinants, it is not possible to conclude, but H1, H2, H4, and H8 remain to be confirmed through this methodology, considering that this model does not present us with a very strong relationship in the variables.

To understand the relationship between the determinants and the transparency of organizations, it was also decided to introduce an analysis of the factors that influence transparency by considering the combination of conditions. A causal condition or combination of conditions is sufficient for an outcome if the result occurs when the condition is present (Rihoux and Ragin, 2009).

Sufficiency analysis followed three sequential steps (Fiss, 2011; Ragin, 2008). First, the truth table was constructed, listing all the logical combinations of the five conditions and the respective number of empirical instances. Second, the truth table was reduced to mean configurations based on two criteria: frequency, which described the number of empirical instances for each possible combination, and consistency (Fiss, 2011). We set the minimum frequency limit at three, which ensured that only those settings that had at least three more appropriate cases were maintained (Rihoux and Ragin, 2009). Regarding consistency, the lowest acceptable consistency score was set at 0.6 (Ragin, 2008). In addition, we also inspected the proportional inconsistency reduction (PIR) and eliminated any configuration that had a PIR less than or equal to 0.7 in order to avoid concurrent relationships of subsets of attribute combinations in both the result and negation (Fiss, 2011; Schneider and Wagemann, 2012). Finally, using Boolean minimization and the Quine-McCluskey algorithm (Ragin, 2008) the truth table was reduced to simplified settings.

The Quine-McCluskey algorithm incorporates an analysis of counterfactual cases known as counterfactual analysis, which differentiates between easy and difficult counterfactuals (Fiss, 2011). Table 5 provides the intermediate solution of the fuzzy assembly for high and not high (low) transparency. The quality of solution fit can be assessed using two measures: consistency and coverage. We use the formulas defined by Ragin (2008) to calculate these measures, as presented in Corne and Peypoch (2020). The consistency value of each setting describes the extent to which the empirical cases that share the configuration agree to display the result (Fiss, 2011). The formulas used for the results presented in Table 5 show that the intermediate solution for high transparency (*ht*) comprised two configurations. The consistency scores for all configurations, as well as the overall solution consistency score, exceeded the threshold of 0.8 (Ragin, 2008). Thus, all settings can be considered sufficient for *ht*.

Coverage assesses the proportion of cases that follow a certain path and captures the empirical importance of a setting (Ragin, 2008). Single coverage refers to the proportion of cases

explained exclusively by a setting. Table 5 shows that the single coverage was greater than zero for all configurations. Thus, all settings were empirically relevant. The overall coverage of the solution refers to the joint importance of all configurations (Ragin, 2008). Table 5 shows that the two configurations explained 54% of the *ht*.

**Table 5: Settings for high and low influence on transparency**

CONFIGURATIO N	HIGH INFLUENCE (HT)			LOW INFLUENCE (-HT)		
	C1	C2	C3	C4	C5	C6
HRIT	•	•	⊗	⊗	⊗	⊗
LP	⊗		⊗	•		•
EIT		•	⊗	•	⊗	
PPO	•	•	⊗	⊗	⊗	⊗
IAR	•	•			⊗	⊗
CONSISTENCY	0.90853	0.915721	0.899917	0.931557	0.900408	0.921538
RAW COVERAGE	0.468973	0.413653	0.471988	0.453415	0.492149	0.477362
UNIQUE COVERAGE	0.126107	0.0707872	0.0385966	0.0389282	0.00797099	0.00443727
OVERALL SOLUTION CONSISTENCY			0.904736			0.879975
OVERALL SOLUTION COVERAGE			0.53976			0.653397

Notes: Black circles (“•”) indicate the “presence” of a condition, and circles with a cross (“⊗”) indicate its “negation”. Blank spaces in the configurations indicate “do not care”.

Source: *Elaborated by authors*

Examination of the intermediate solution for *ht* shows that human and IT resources and the actions of professional organizations were present in all configurations. The first configuration indicates that for some organizations human and technological resources combined with the action of professional organizations, the implementation of accounting reform, and the absence of penalties, regardless of the experience and involvement of the teams, led to an increase in transparency. As mentioned above, we found that it was not possible to validate that the influence of human and technological resources, in isolation, leads to an increase in transparency and the results of the action of professional organizations were contradictory with findings reported in the literature review when analyzed in isolation. Using this methodology of factorial configurations, it is determined that it is the combination of factors, and not each of the factors analyzed in isolation, that influences not only the implementation of the accounting reform but also contributes to increased transparency. Thanh *et al.*, (2020) reported factors influencing the reform of the accounting system in the public sector in Vietnam for accrual accounting. These factors were accounting personnel, the costs of accounting reform, the level of application of information technology, funding and

assistance from international organizations, and legal environment. Our study reveals a different perspective, showing that organizations point to the combination of human and IT resources as determining factors, but adding the action of professional organizations, as enhancers of transparency.

The second configuration shows that for some organizations human and IT resources combined with the expertise and involvement of teams, the action of professional organizations, and the implementation of the accounting reform itself also led to an increase in transparency. As in the previous point, it appears that the factors that are analyzed in isolation do not allow us to establish links with the implementation of the accounting reform, and with the increase in transparency. When combined, it appears that there are organizations that consider that these factors together positively influence the implementation of the accounting reform and contribute to increased transparency. Some studies analyze the influence of human and IT resources on the implementation of accounting reforms (Bruno and Lapsley, 2018; Caruana, 2017; Hladika, 2022). Our study, however, also adds the combination of these two factors, the experience of the teams and the actions of the professional organizations, as determinants in the implementation of the accounting reform and also as an increase of the transparency of the organizations.

As mentioned above, the fsQCA is responsible for causal asymmetry, which means that configurations that predict a high influence on transparency are not necessarily the mirrored opposites of configurations that predict a low influence on transparency (Fiss, 2011). For that reason we also analyzed the settings that led to a low influence on transparency ( $\sim ht$ ). The frequency, consistency, and PRI thresholds used to perform the sufficiency analysis for the  $\sim ht$  result were the same as those used for high transparency. Table 5 presents the intermediate solution of the fuzzy set for  $\sim ht$  (C3, C4, and C5 configurations). The results show that the four configurations led to  $\sim ht$ , and all exceeded the consistency threshold of 0.8 (Ragin, 2008). These settings explained 65% of the  $\sim ht$ . The C3 configuration shows that the combination of low resources, a low penalty for non-implementation, poor experience and involvement of teams, and weak action by professional associations led to  $\sim ht$ . The C4 configuration shows that low technological resources, coupled with a weak penalty for non-implementation, a high experience and involvement of teams, and weak action of professional associations also led to  $\sim ht$ . In the C5 configuration the low resources combined with the poor experience and involvement of the teams, the weak action of the professional associations, and the weak implementation of the SNC-AP also led to  $\sim ht$ . Finally, the C6 combination

shows that the low technological resources, combined with the high penalty for non-implementation, the weak action of the professional associations, and the weak implementation of the accounting reform also led to *~ht*.

### **3.7. Conclusions**

Based on the institutional theory, our study provides valuable insights into the determinants that influence the implementation of PSA reforms and their impact on transparency in Portugal.

Our study robustly concludes that the determinants of implementation of PSA reforms are experience and involvement of the teams and the lack of penalties, and that they had a positive influence on the implementation of the PSA reforms, contrary to the professional organizations, which did not benefit the implementation of the PSA reforms. The findings of this study reveal that the expertise and engagement of teams have had a favorable impact on the successful implementation of accounting reform within the departments of the Portuguese central administration (Eriotis *et al.*, 2012; Hyndman and Liguori, 2018). In addition, within the institutional logics shaping involvement and expectations of actors (DiMaggio and Powell, 1983), organizations responded to change in accordance with their internal dynamics of teams inherent to Public Administration entities, as well as the perception of the new PSA system by internal organizational actors (Jorge *et al.*, 2021).

The lack of penalties for non-compliance was found to facilitate the implementation of accounting reform. This counterintuitive effect contradicts the literature (Harun and Kamase, 2012; Sulu-Gambari *et al.*, 2018), which suggests that weak penalties for non-compliance in Portugal likely enabled organizations to adopt PSA reforms more flexibly (Jorge *et al.*, 2021), as managers may have been more motivated to do so without fear of repercussions, leading to better resource allocation for implementation. Because of this, the Portuguese context of the implementation of PSA reform could be a promising area for future research. The determinant influence of professional organizations had a negative impact on the implementation of the ASSPA, indicating potential misalignment between their goals and the objectives of reform initiatives (Jorge *et al.*, 2021). Nevertheless, further research is needed to explore the nuanced dynamics of this relationship and its implications for reform implementation.

It is essential to highlight that the strongest finding in this study is that the implementation of accounting reform unquestionably results in enhanced transparency within the public sector, effectively achieving one of the primary goals of the reform. This observation remains consistent in countries that have initiated or successfully completed public sector accounting reform efforts. This is attributed to the adoption of IPSAS, which is recognized for its capacity to provide information that advances transparency and fiscal accountability, as supported by many previous studies (Abeysinghe and Samanthi, 2016; Flynn *et al.*, 2016; Shehadeh, 2022; Vaz, 2023).

Our study stands out from others in the literature that share a similar subject of study (Ada and Christiaens, 2017; Agasisti *et al.*, 2018; Elmezughi and Wakil, 2018; García-Fénix and González-González, 2020) by examining the interaction and combination of determinants or factors. In contrast to traditional correlation-based techniques that assess the impact of each factor in isolation, our approach highlights that the influence of these factors on the outcome may vary based on how they are combined. We employed a comprehensive qualitative comparative analysis known as fsQCA (Dias *et al.*, 2023) to study these interactions.

Rather than conducting only separate correlational analyses of individual factors, we examined how the combination of factors influenced the implementation of the ASSPA and the subsequent increase in transparency within the public sector. This method enabled us to conclude that for a specific group of organizations an increase in transparency resulted from a combination of factors: the availability of resources, the involvement of professional organizations, the implementation of the ASSPA, and the absence of penalties, regardless of the experience and commitment of the teams.

In another group of organizations transparency was positively affected by a blend of resource availability, team experience and involvement, professional organizations' influence, and ASSPA implementation. Notably, if we were to consider different factors, we might uncover alternative combinations influencing transparency, suggesting potential directions for future research.

This investigation makes the following contributions:

(1) Our study contributes to the theory by adding to the understanding of the determinants influencing the implementation of PSA reforms and their impacts on transparency within public sector organizations. We enrich the literature by exploring the determinants involved in the implementation of public sector accounting reforms, with a particular emphasis on

IPSAS-based reforms. This builds upon prior studies (Brusca and Martínez, 2016; Gómez-Villegas *et al.*, 2020; Polzer *et al.*, 2019; Shehadeh, 2022; Wang and Miraj, 2018).

(2) We contribute to the literature addressing transparency within the public sector, specifically concerning the implementation of accounting reforms. This complements earlier research efforts (Cuadrado-Ballesteros *et al.*, 2023; Lentner *et al.*, 2020; Rogosic and Palos, 2017; Sour, 2022).

(3) Our contribution extends to the literature regarding the public sector in Portugal, with a specific focus on the recent public sector accounting reform. This supplements the work of earlier scholars (Jorge *et al.*, 2021; Mattei *et al.*, 2020; Nogueira and Jorge, 2017; Polzer *et al.*, 2022; Vaz, 2023).

(4) Additionally, we promote the dissemination of the PLS methodology and the utilization of fsQCA, recognized as an innovative and valuable research approach within the field of public sector accounting (IFAC and CIPFA, 2014).

In a practical sense our study assists organizations currently engaged in the implementation of PSA reforms, or those planning to initiate such reforms. We intend for this research to serve as a valuable resource, allowing them to draw insights from past experiences and identify the key determinants that can simplify a process that is often anticipated to be complex. By considering the determinants we have outlined, public organization managers can make more informed decisions regarding the adoption of IPSAS. This, in turn, can help to enhance transparency in their organizations.

Transparency empowers citizens to combat corruption, enabling active participation in public administration. We hope that this study boosts citizens' understanding of the Portuguese public sector accounting reform and engenders greater transparency in public management. This, in turn, facilitates increased engagement between society and government, ensuring that decisions align with broader societal needs.

We recommend conducting comparative studies among these three contexts within Portugal (financial, budgetary and management accounting) and extending the comparison to different countries. These research efforts will broaden and deepen our practical and academic understanding of the processes and effects related to the implementation of IPSAS and its goals.

### 3.8. References

- Abeyasinghe, C. and Samanthi, D. (2016), “Accrual Basis and Political Interest in Public Sector Accounting . The Case of a Municipal Council in Sri Lanka”, *International Journal of Academic Research in Accounting, Finance and Management Sciences*, Vol. 6 No. 3, doi: 10.6007/IJARAFMS/v6-i3/2161.
- ACCA. (2017), “IPSAS implementation : current status and challenges About ACCA”, *ACCA Magazine*, p. 30.
- Ada, S. and Christiaens, J. (2017), “Why do some Municipalities apply accrual-based rules mores than others? Evidence from Turkey”, *E a M: Ekonomie a Management*, Vol. 20 No. 3, pp. 189–206, doi: 10.15240/tul/001/2017-3-013.
- Adhikari, P. and Gårseth-Nesbakk, L. (2016), “Implementing public sector accruals in OECD member states: Major issues and challenges”, *Accounting Forum*, Vol. 40 No. 2, doi: 10.1016/j.accfor.2016.02.001.
- Agasisti, T., Catalano, G. and Erbacci, A. (2018), “How Resistance to Change Affects the Implementation of Accrual Accounting in Italian Public Universities: A Comparative Case Study”, *International Journal of Public Administration*, Vol. 41 No. 12, pp. 946–956, doi: 10.1080/01900692.2017.1301469.
- Albuquerque, F., Azevedo, J. and Magalhães, A. (2017), “Adoção das normas internacionais de contabilidade do setor público (IPSAS) pelos municípios portugueses”, *Revista Brasileira de Gestão e Desenvolvimento Regional*, Vol. 13 No. 2, pp. 102–122.
- Almeida, S., Alves, H. and Moreira, P. (2019), “Benefícios percebidos na adoção das IPSAS: Um estudo com auditores independentes”, *Revista Contemporânea de Contabilidade*, Vol. 16 No. 38, pp. 86–105.
- Araújo, J. and Tejedo-Romero, F. (2016), “Local government transparency index: determinants of municipalities’ rankings”, *International Journal of Public Sector Management*, Vol. 29 No. 4, pp. 327–347, doi: doi.org/10.1108/IJPSM-11-2015-0199.
- Armstrong, E. (2005), *Integrity, Transparency and Accountability in Public Administration: Recent Trends, Regional and International Developments and Emerging Issues*, New York.
- Asaduzzaman, M. and Virtanen, P. (2021), “Strong, Transparent Public Institutions and Meta-governance”, in Leal Filho, W., Marisa Azul, A., Brandli, L., Lange Salvia, A., Özuyar, P.G. and Wall, T. (Eds.), *Peace, Justice and Strong Institutions. Encyclopedia of the UN Sustainable Development Goals*, Springer, Cham., doi: 10.1007/978-3-319-95960-3\_125.

- Atuilik, W. and Salia, H. (2019), “Impact of IPSAS adoption on transparency and accountability in managing public funds in developing countries: Evidence from Liberia”, *Journal of Accounting and Taxation*, Vol. 11 No. 6, pp. 99–110, doi: 10.5897/JAT2019.0345.
- Azevedo, R., Lino, A., Aquino, A. and Machado-Martins, T. (2020), “Financial Management Information Systems and accounting policies retention in Brazil”, *International Journal of Public Sector Management*, Vol. 33 No. 2–3, pp. 207–227, doi: 10.1108/IJPSM-01-2019-0027.
- Bagozzi, R. and Yi, Y. (1988), “On the Evaluation of Structural Equation Models”, *Journal of the Academy of Marketing Sciences*, Vol. 16, pp. 74–94.
- Bairral, M., Silva, A. and Alves, F. (2015), “Disclosure in public sector: an analysis of the level of disclosure in the annual reports of Brazilian federal government bodies in the year 2010”, *Rev. Adm. Pública*, Vol. 49 No. 3, pp. 643–675, doi: 10.1590/0034-7612125158.
- Baraldi, F., Borgert, A. and Fabre, V. (2019), “Analysis of Transparency Portais of small municipalities of Paraná”, *Revista Práticas de Administração Pública*, Vol. 3 No. 1, pp. 63–84, doi: 10.5902/2526629238478.
- Bekiaris, M. and Paraponti, T. (2023), “Examining the status of IPSAS adoption at the country level: an analysis of the OECD member states”, *Journal of Accounting and Organizational Change*, Vol. 19 No. 2, pp. 296–325, doi: 10.1108/JAOC-02-2021-0023.
- Ter Bogt, H. and Van Helden, J. (2000), “Accounting change in Dutch government: Exploring the gap between expectations and realizations”, *Management Accounting Research*, Vol. 11 No. 2, pp. 263–279, doi: 10.1006/mare.2000.0132.
- Bruno, A. and Lapsley, I. (2018), “The emergence of an accounting practice: The fabrication of a government accrual accounting system”, *Accounting, Auditing and Accountability Journal*, Vol. 31 No. 4, pp. 1045–1066, doi: 10.1108/AAAJ-01-2016-2400.
- Brusca, I. and Martínez, J. (2016), “Adopting International Public Sector Accounting Standards: a challenge for modernizing and harmonizing public sector accounting”, *International Review of Administrative Sciences*, Vol. 82 No. 4, pp. 724–744, doi: 10.1177/0020852315600232.
- Caamaño-Alegre, J., Lago-Peñas, S., Reyes-Santias, F. and Santiago-Boubeta, A. (2013), “Budget Transparency in Local Governments: An Empirical Analysis”, *Local Government Studies*, Vol. 39 No. 2, pp. 182–207, doi: 10.1080/03003930.2012.693075.
- Carini, C., Giacomini, D. and Teodori, C. (2019), “Accounting Reform in Italy and

- Perceptions on the Local Government Consolidated Report”, *International Journal of Public Administration*, Routledge, Vol. 42 No. 3, pp. 195–204, doi: 10.1080/01900692.2017.1423500.
- Caruana, J. (2017), “Reform for reform’s sake: A never-ending story of governmental accounting change”, *Business and Economic Horizons*, Vol. 13 No. 5, pp. 676–705, doi: 10.15208/beh.2017.46.
- Christiaens, J., Vanhee, C., Rossi, F., Aversano, N. and van Cauwenberge, P. (2015), “The effect of IPSAS on reforming governmental financial reporting: an international comparison”, *International Review of Administrative Sciences*, Vol. 81 No. 1, pp. 158–177, doi: 10.1177/0020852314546580.
- Corne, A. and Peypoch, N. (2020), “On the determinants of tourism performance”, *Annals of Tourism Research*, Vol. 85, doi: 10.1016/j.annals.2020.103057.
- Cuadrado-Ballesteros, B., Ríos, A. and Guillamón, M. (2023), “Transparency in public administrations: a structured literature review”, *Journal of Public Budgeting, Accounting and Financial Management*, Vol. ahead-of-p, doi: 10.1108/JPBAFM-10-2022-0158.
- Cucciniello, M., Porumbescu, G.A. and Grimmelhuijsen, S. (2017), “25 Years of Transparency Research: Evidence and Future Directions”, *Public Administration Review*, Vol. 77 No. 1, pp. 32–44, doi: 10.1111/puar.12685.
- Dias, Á., Silva, G., Patuleia, M. and González-Rodríguez, M. (2023), “Developing sustainable business models: local knowledge acquisition and tourism lifestyle entrepreneurship”, *Journal of Sustainable Tourism*, Vol. 31 No. 4, pp. 931–950, doi: 10.1080/09669582.2020.1835931.
- DiMaggio, P. and Powell, W. (1983), “The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields”, *American Sociological Review*, Vol. 48 No. 2, pp. 147–160.
- Directorate-General for Budget. (2022), “Circular 1407”.
- Elmezghi, A. and Wakil, A. (2018), “Feasibility of transformation to accrual basis of accounting in the public sector: Kingdom of Bahrain context”, *Academy of Accounting and Financial Studies Journal*, Vol. 22 No. 6.
- Eriotis, N., Stamatiadis, F. and Vasiliou, D. (2012), “Assessing Accrual Accounting Reform in Greek Public Hospitals: An Empirical Investigation”, *International Journal of Economic Sciences and Applied Research*, Vol. 4 No. 1, pp. 153–183, doi: 10.2139/ssrn.1978671.
- Erkkilä, T. (2020), “Transparency in Public Administration”, *Oxford Research Encyclopedia*

*of Politics.*

- Falk, R. and Miller, N. (1992), *A Primer for Soft Modeling*, University of Akron Press.
- Ferreira, A., Oliveira, F. and Silva, R. (2021), “Challenges and opportunities in the adoption of IPSAS in the Portuguese public sector”, *Revista de Contabilidade e Controladoria*, Vol. 13 No. 1, pp. 78–93.
- Fiss, P. (2011), “Building Better Causal Theories: A Fuzzy Set Approach to Typologies in Organization Research”, *Academy of Management Journal*, Vol. 54 No. 2, doi: 10.5465/amj.2011.60263120.
- Flynn, S., Moretti, D. and Cavanagh, J. (2016), *Implementing Accrual Accounting in the Public Sector*.
- Fornell, C. and Larcker, D. (1981), “Evaluating structural equation models with unobservable variables and measurement error”, *Journal of Marketing Research*, Vol. 18 No. 1, pp. 39–50, doi: 10.2307/3151312.
- Fuentes, S. and Borreguero, J. (2018), “Institutional capacity in the accounting reform process in Spanish local governments”, *Spanish Accounting Review*, ASEPUC, Vol. 21 No. 2, pp. 188–195, doi: 10.1016/j.rcsar.2018.05.002.
- García-Fénix, M. and González-González, J. (2020), “Barriers to the implementation of cost-effective in Spanish local authorities”, *Revista Espanola de Financiacion y Contabilidad*, Vol. 00 No. 00, pp. 1–38, doi: 10.1080/02102412.2019.1705088.
- Georgescu, C.E. (2021), “Considerations About the Application of Accrual Accounting on the Public Sector in Romania”, Vol. XXI No. 1, pp. 750–756.
- Gigli, S., Mariani, L. and Trivellato, B. (2018), “Assimilating accounting innovations: lessons from Italian public universities”, *Journal of Accounting and Organizational Change*, Vol. 14 No. 4, pp. 381–401, doi: 10.1108/JAOC-10-2017-0101.
- Gomes, P., Carvalho, J. and Fernandes, M. (2015), “As consequências da adoção das normas internacionais de contabilidade pública na contabilidade de custos: o caso português”, *XXII Congresso Brasileiro de Custos - ABC*.
- Gomes, P., Fernandes, M. and Carvalho, J. (2015), “The International Harmonization Process of Public Sector Accounting in Portugal: The Perspective of Different Stakeholders”, *International Journal of Public Administration*, Vol. 38 No. 4, pp. 268–281, doi: 10.1080/01900692.2015.1001237.
- Gómez-Villegas, M., Brusca, I. and Bergmann, A. (2020), “IPSAS in Latin America: innovation, isomorphism or rhetoric?”, *Public Money and Management*, Vol. 40 No. 7, pp. 489–498, doi: 10.1080/09540962.2020.1769374.

- Gonçalves, M. and Ramos, S. (2017), “The adoption of IPSAS in the context of the public sector: A case study in Portugal”, *Revista Contabilidade & Finanças*, Vol. 28 No. 75, pp. 13–25.
- Gourfinkel, D. (2022), “The main challenges of Public Sector Accounting reforms and World Bank’s Public Sector Accounting and Reporting (PULSAR) Program”, *Journal of Public Budgeting, Accounting and Financial Management*, Vol. 34 No. 2, pp. 347–352, doi: 10.1108/JPBAFM-05-2021-0079.
- Grimmelikhuijsen, S.G. and Welch, E.W. (2012), “Developing and Testing a Theoretical Framework for Computer-Mediated Transparency of Local Governments”, *Public Administration Review*, Vol. 72 No. 4, pp. 562–571, doi: 10.1111/j.1540-6210.2011.02532.x.
- Grossi, G. and Soverchia, M. (2011), “European commission adoption of IPSAS to reform financial reporting”, *Abacus*, Vol. 47 No. 4, pp. 525–552, doi: 10.1111/j.1467-6281.2011.00353.x.
- Haija, A.A.A., AlQudah, A.M., Aryan, L.A. and Azzam, M.J. (2021), “Key success factors in implementing international public sector accounting standards”, *Accounting*, Vol. 7 No. 1, pp. 239–248, doi: 10.5267/j.ac.2020.9.012.
- Hair, J., Black, W., Babin, B., Anderson, R. and Tatham, R. (2006), *Multivariate Data Analysis*, edited by Hall, P.P., 6th Editio., Upper Saddle River.
- Hair, J., Hult, G., Ringle, C. and Sarstedt, M. (2017), *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, edited by Oaks, T., 2nd Editio., Sage Publications.
- Haldma, T. and Kenk, K. (2014), “Development of Estonian local government accounting: the stages of evolution during the years 1991–2013”, *Zeszyty Teoretyczne Rachunkowości*, Vol. 2014 No. (78)134, pp. 109–130, doi: 10.5604/16414381.1122869.
- Harun, H. and Kamase, H. (2012), “Accounting Change and Institutional Capacity: The Case of a Provincial Government in Indonesia”, *Australasian Accounting, Business and Finance Journal*, Vol. 6 No. 2, pp. 35–50.
- van Helden, J. and Reichard, C. (2018), “Cash or accruals for budgeting? Why some governments in Europe changed their budgeting mode and others not”, *OECD Journal on Budgeting*, Vol. 18 No. 1, pp. 91–113, doi: 10.1787/budget-18-5j81804pq0g8.
- Henseler, J., Ringle, C. and Sarstedt, M. (2015), “A New Criterion for Assessing Discriminant Validity in Variance-based Structural Equation Modeling”, *Journal of the Academy of Marketing Science*, Vol. 43 No. 1, pp. 115–135, doi: 10.1007/s11747-014-

0403-8.

- Hidayah, N. and Zarkasyi, W. (2017), “The effect of human resources management competency and the role of culture on accrual accounting implementation effectiveness and the impact on quality of accounting information”, *European Research Studies Journal*, Vol. 20 No. 4, pp. 183–199, doi: 10.35808/ersj/884.
- Hladika, M. (2022), “Analysis of Public Managers’ Attitudes Toward Constraints for Implementation of Public Sector Accounting Reform in Croatia”, *Ekonomski Pregled*, Vol. 73 No. 1, pp. 81–106, doi: 10.32910/ep.73.1.4.
- Hopwood, A.G. (1994), *Accounting as Social and Institutional Practice*, edited by Hopwood, A. and Miller, P., Cambridge University Press.
- Hyndman, N. and Liguori, M. (2018), “Achieving radical change: A comparative study of public-sector accounting in Westminster and Scotland”, *Accounting, Auditing and Accountability Journal*, Vol. 31 No. 2, pp. 428–455, doi: 10.1108/AAAJ-04-2016-2527.
- IASB. (2018), “Conceptual Framework for Financial Reporting At a glance”, *International Accounting Standards Board*, No. September, pp. 767–785.
- IFAC. (2021), *International Public Sector Financial Accountability Index*.
- IFAC and CIPFA. (2014), *International Framework: Good Governance in the Public Sector*, edited by IFAC.
- Inkina, S. (2019), “Bureaucratic reform and Russian transition: the puzzles of policy-making process”, *Palgrave Communications*, Springer US, Vol. 5 No. 1, pp. 1–15, doi: 10.1057/s41599-019-0238-5.
- IPSASB. (2021), “International Public Sector Accounting Standards Board Fact Sheet”.
- Islam, R. (2006), “Does more transparency go along with better governance?”, *Economics and Politics*, Vol. 18 No. 2, pp. 121–167, doi: 10.1111/j.1468-0343.2006.00166.x.
- Ismail, S., Siraj, S. and Baharim, S. (2018), “Implementation of accrual accounting by Malaysian federal government: Are the accountants ready?”, *Journal of Accounting and Organizational Change*, Vol. 14 No. 2, pp. 234–247, doi: 10.1108/JAOC-03-2017-0020.
- Ismaili, A., Ismajli, H. and Vokshi, N. (2021), “The importance and challenges of the implementation of ipsas accrual basis to the public sector: The case of kosovo”, *Accounting*, Vol. 7 No. 5, pp. 1109–1118, doi: 10.5267/j.ac.2021.2.028.
- Jayasinghe, K., Adhikari, P., Soobaroyen, T., Wynne, A., Malagila, J. and Abdurafiu, N. (2021), “Critical Perspectives on Accounting Government accounting reforms in Sub-Saharan African countries and the selective ignorance of the epistemic community: A competing logics perspective”, *Critical Perspectives on Accounting*, Elsevier Ltd, Vol.

- 78, p. 102246, doi: 10.1016/j.cpa.2020.102246.
- Jones, R. and Caruana, J. (2014), “Central government accounting reform in Malta: Is it just an illusion?”, *Bank of Valletta Review*, No. 49, pp. 51–78.
- Jorge, S., Brusca, I. and Nogueira, S. (2019), “Translating IPSAS into National Standards: An Illustrative Comparison between Spain and Portugal”, *Journal of Comparative Policy Analysis: Research and Practice*, Vol. 21 No. 5, pp. 445–462, doi: 10.1080/13876988.2019.1579976.
- Jorge, S., Caruana, J. and Caperchione, E. (2019), “The Challenging Task of Developing European Public Sector Accounting Standards”, *Accounting in Europe*, Taylor & Francis, Vol. 16 No. 2, pp. 143–145, doi: 10.1080/17449480.2019.1637530.
- Jorge, S., Nogueira, S. and Ribeiro, N. (2021), “The institutionalization of public sector accounting reforms: the role of pilot entities”, *Journal of Public Budgeting, Accounting and Financial Management*, Vol. 33 No. 2, pp. 114–137, doi: 10.1108/JPBAFM-08-2019-0125.
- Kaufmann, D., Mehrez, G. and Gurgur, T. (2019), “Voice or public sector management? An empirical investigation of determinants of public sector performance based on a survey of public officials”, *Journal of Applied Economics*, Routledge, Vol. 22 No. 1, pp. 321–348, doi: 10.1080/15140326.2019.1627718.
- Klimavičienė, I. and Mykolaitienė, V. (2007), “Changes in the Accounting System of the Public Sector in Lithuania”, *Economics and Management*, Vol. 12, pp. 63–72.
- Kowalczyk, M. and Caruana, J. (2022), “Governmental accounting and budgeting in Malta and Poland – a different dance to the same tune”, *International Journal of Public Sector Management*, Vol. 35 No. 7, pp. 783–805, doi: 10.1108/IJPSM-12-2021-0284.
- Lentner, C., Molnár, P. and Nagy, V. (2020), “Accrual accounting and public finance reforms in Hungary: The study of application in the public sector”, *Economic Annals-XXI*, Vol. 183 No. 5–6, pp. 89–105, doi: 10.21003/ea.V183-09.
- Liberato, M., Inna, P. and Serrasqueiro, R. (2023), “Constraints and stimuli in the implementation of public accounting reform: systematic literature review and future research agenda reform”, *Journal of Accounting and Organizational Change*, doi: 10.1108/JAOC-01-2022-0018.
- Lokuwaduge, C. (2016), “Exploring the new public management (NPM)-based reforms in the public sector accounting: A Sri Lankan study”, *Global Perspectives on Risk Management and Accounting in the Public Sector*, pp. 49–67, doi: 10.4018/978-1-4666-9803-1.ch003.

- Lutitsky, I., Žmuk, B. and Dragija, M. (2016), “Cost accounting as a possible solution for financial sustainability of Croatian public hospitals”, *Croatian Economic Survey*, Vol. 18 No. 2, pp. 5–38, doi: 10.15179/ces.18.2.1.
- Madkur, F. and Paletta, F. (2021), “Digital Transparency in Public Information : Infoethics”, *Boletim Do Arquivo Da Universidade de Coimbra*, Vol. 34 No. 2, pp. 69–89.
- Marques, R. and Pinheiro, P. (2018), “Factors influencing the adoption of IPSAS in Portuguese local governments”, *International Journal of Public Sector Management*, Vol. 31 No. 3, pp. 277–296.
- Mattei, G., Jorge, S. and Grandis, F.G. (2020), “Comparability in IPSASs: Lessons to be Learned for the European Standards”, *Accounting in Europe*, Vol. 0 No. 0, pp. 1–25, doi: 10.1080/17449480.2020.1742362.
- Meyer, J. and Rowan, B. (1977), “Institutionalized Organizations: Formal Structure as Myth and Ceremony”, *American Journal of Sociology*, Vol. 83 No. 340–363, doi: <https://doi.org/10.1086/226550>.
- Ministério das Finanças. (2015), *Decree-Law 192/2015-Standardization System Accounting for Public Administrations*, Portugal.
- Misangyi, V., Greckhamer, T., Furnari, S., Fiss, P., Crilly, D. and Aguilera, R. (2017), “Embracing Causal Complexity: The Emergence of a Neo-Configurational Perspective”, *Journal of Management*, Vol. 43 No. 1, pp. 255–282, doi: 10.1177/0149206316679252.
- Mohammadrezaei, F., Banimahd, B. and Saleh, N. (2013), “Convergence obstacles with IASB standards: Evidence from Iran”, *International Journal of Disclosure and Governance*, Nature Publishing Group, Vol. 10 No. 1, pp. 58–91, doi: 10.1057/jdg.2012.10.
- Nakmahachalasint, O. and Narktabtee, K. (2019), “Implementation of accrual accounting in Thailand’s central government”, *Public Money and Management*, Vol. 39 No. 2, pp. 139–147, doi: 10.1080/09540962.2018.1478516.
- Nogueira, S. and Jorge, S. (2017), “The perceived usefulness of financial information for decision-making in Portuguese municipalities: the importance of internal control”, *Journal of Applied Accounting Research*, Vol. 18 No. 1, doi: 10.1108/JAAR-05-2014-0052.
- OECD and IFAC. (2017), *Accrual Practices and Reform Experiences in OECD Countries*, OECD Publishing, Paris, doi: 10.1787/9789264270572-en.
- Ofoegbu, G. (2014), “New Public Management and Accrual Accounting Basis for Transparency and Accountability in the Nigerian Public Sector”, *Journal of Business and*

- Management*, Vol. 16 No. 7, pp. 104–113, doi: 10.9790/487X-1673104113.
- Oliveira, C. and Branco, M. (2016), “A adoção das IPSAS nos países lusófonos: Estudo comparativo”, *Revista de Contabilidade e Finanças*, Vol. 27 No. 70, pp. 156–171.
- Pires, A., Rodrigues, F. and Fernandes, A. (2019), “Breve abordagem aos desafios da contabilidade e dos seus profissionais com recurso à teoria institucional: estudo de caso”, *XVII Congresso Internacional de Contabilidade e Auditoria*, Porto, pp. 978–989.
- Polzer, T., Gårseth-Nesbakk, L. and Adhikari, P. (2019), ““Does your walk match your talk?” Analyzing IPSASs diffusion in developing and developed countries”, *International Journal of Public Sector Management*, Vol. 33 No. 2–3, pp. 117–139, doi: 10.1108/IJPSM-03-2019-0071.
- Polzer, T., Grossi, G. and Reichard, C. (2022), “Implementation of the international public sector accounting standards in Europe. Variations on a global theme”, *Accounting Forum*, Vol. 46 No. 1, pp. 57–82, doi: 10.1080/01559982.2021.1920277.
- Presidência do Conselho de Ministros. (2019), *Decree-Law 84/2019-Establishes the Rules for Implementing the State Budget for 2019*, *Diário Da República*, 1.<sup>a</sup> Série — N.º 122, pp. 3078–3138.
- Puron-Cid, G. and Bolívar, M. (2018), “The effects of contextual factors into different features of financial transparency at the municipal level”, *Government Information Quarterly*, Vol. 35 No. 1, pp. 135–150, doi: 10.1016/j.giq.2017.10.005.
- Ragin, C. (2008), “Redesigning Social Inquiry: Fuzzy Sets and Beyond”, *Bibliovault OAI Repository, the University of Chicago Press*, doi: 10.7208/chicago/9780226702797.001.0001.
- Rajib, S., Adhikari, P., Hoque, M. and Akter, M. (2019), “Institutionalisation of the Cash Basis International Public Sector Accounting Standard in the Central Government of Bangladesh: An example of delay and resistance”, *Journal of Accounting in Emerging Economies*, Vol. 9 No. 1, pp. 28–50, doi: 10.1108/JAEE-10-2017-0096.
- Relly, J. and Sabharwal, M. (2009), “Perceptions of transparency of government policymaking: A cross-national study”, *Government Information Quarterly*, Elsevier Inc., Vol. 26 No. 1, pp. 148–157, doi: 10.1016/j.giq.2008.04.002.
- Rihoux, B. and Ragin, C. (2009), *Configurational Comparative Methods: Qualitative Comparative Analysis (QCA) and Related Techniques*, SAGE, Los Angeles.
- Ringle, C., Wende, S. and Becker, J. (2022), “SmartPLS 4”, Oststeinbek: SmartPLS GmbH.
- Rogosic, A. and Palos, K.P. (2017), “Public Sector Accounting: Transparency Issues”, *European Scientific Journal*, Vol. SPECIAL ed, pp. 13–23.

- Santis, S., Grossi, G. and Bisogno, M. (2019), “Drivers for the voluntary adoption of consolidated financial statements in local governments”, *Public Money and Management*, Taylor & Francis, Vol. 39 No. 8, pp. 534–543, doi: 10.1080/09540962.2019.1618072.
- Scheers, B., Sterck, M. and Bouckaert, G. (2006), “Lessons from Australian and British Reforms in Results oriented Financial Management”, *OECD Journal on Budgeting*, Vol. 5 No. 2, pp. 133–162, doi: 10.1787/budget-v5-art14-en.
- Schmidthuber, L., Hilgers, D. and Hofmann, S. (2020), “International Public Sector Accounting Standards (IPSASs): A systematic literature review and future research agenda”, *Financial Accountability and Management*, No. February 2019, pp. 1–24, doi: 10.1111/faam.12265.
- Schmidthuber, L., Hilgers, D. and Hofmann, S. (2022), “International Public Sector Accounting Standards (IPSASs): A systematic literature review and future research agenda”, *Financial Accountability and Management*, Vol. 38 No. 1, pp. 119–142, doi: 10.1111/faam.12265.
- Schneider, C. and Wagemann, C. (2012), *Set-Theoretic Methods for the Social Sciences: A Guide to Qualitative Comparative Analysis*, Cambridge University Press, Cambridge.
- Shehadeh, E. (2022), “A Movement Towards the Accrual Based IPSAS Implementation in Developing Countries: Evidence from Jordan”, *The Journal of Asian Finance, Economics and Business*, Vol. 9 No. 3, pp. 389–397, doi: 10.13106/jafeb.2022.vol9.no3.0389.
- del Sol, D. (2013), “The institutional, economic and social determinants of local government transparency”, *Journal of Economic Policy Reform*, Vol. 16 No. 1, pp. 90–107, doi: 10.1080/17487870.2012.759422.
- Sour, L. (2022), “The Government Accounting System Which Will Improve Transparency and Accountability in Mexico”, *Transparencia y Privacidad Revista Mexicana*.
- Steccolini, I., Saliterer, I. and Guthrie, J. (2020), “The role(s) of accounting and performance measurement systems in contemporary public administration”, *Public Administration*, Vol. 98 No. 1, pp. 3–13, doi: 10.1111/padm.12642.
- Sulu-Gambari, W., Stafford, A. and Stapleton, P. (2018), “Public accountability reform in a Nigerian ministry”, *Qualitative Research in Accounting and Management*, Vol. 15 No. 4, pp. 485–509, doi: 10.1108/QRAM-10-2016-0077.
- Tawiah, V. (2022), “The Effect of IPSAS Adoption on Governance Quality: Evidence from Developing and Developed Countries”, *Public Organization Review*, Springer US, doi:

10.1007/s11115-022-00625-w.

- Thanh, P., Thanh, H., Thanh, T. and Thuy, T. (2020), “Factors affecting accrual accounting reform and transparency of performance in the public sector in Vietnam”, *Problems and Perspectives in Management*, Vol. 18 No. 2, pp. 180–193, doi: 10.21511/ppm.18(2).2020.16.
- The World Bank. (2015), “Transparency in Public Finance”, available at: <https://www.worldbank.org/en/topic/governance/brief/transparency-in-public-finance>.
- Tóth, B. (2020), “The public sector accounting reform of 2014 in the light the experiences of the local governments: A pilot project to explore the problems”, *Public Finance Quarterly*, Vol. 65 No. 2, pp. 245–262, doi: 10.35551/PFQ\_2020\_2\_6.
- Tribunal de Contas. (2019), *Auditoria à Implementação Do SNC-AP e Da ECE - Relatório Intercalar VI - RELATÓRIO N.º 13/2019 - 2ª Secção*.
- Vaz, P. (2023), *Determinantes Da Divulgação Da Informação Financeira: Uma Análise Comparativa Entre o POCP e o SNC-AP*, Almedina.
- Wang, Z. and 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*, Vol. 9 No. 2, pp. 44–51, doi: 10.5430/RWE.V9N2P44.
- Woodside, A. (2013), “Moving beyond multiple regression analysis to algorithms: Calling for adoption of a paradigm shift from symmetric to asymmetric thinking in data analysis and crafting theory”, *Journal of Business Research*, Vol. 66 No. 4, pp. 463–472, doi: <https://doi.org/10.1016/j.jbusres.2012.12.021>.
- Yapa, P. and Ukwatte, S. (2015), “The New Public Financial Management (NPFM) and Accrual Accounting in Sri Lanka”, *Research in Accounting in Emerging Economies*, Vol. 15, pp. 7–50, doi: 10.1108/S1479-356320150000015002.

## **4. CONCLUSION**

The present report is submitted in partial fulfillment of the requirements prescribed in N.º 5 of the Decreto-Lei nº239/2007 de 19 de junho. This report provides a detailed overview of two papers that delve into different methodologies to investigate the public sector accounting reforms, offering valuable insights for masters students.

The first paper, “Constraints and stimuli in the implementation of public accounting reform: Systematic literature review and future research agenda” conducts a thorough examination of the constraints and stimuli influencing the implementation of public accounting reforms across developed and developing countries. It emphasizes key factors such as the availability of training and financial resources, shedding light on their pivotal role in shaping the reform process. Moreover, the paper highlights distinct motivations driving reform efforts in different contexts (developed and developing countries). Its comprehensive analysis offers masters students a robust framework for understanding the complexities and opportunities associated with public accounting reform, laying the groundwork for future research inquiries.

The second paper, “The determinants in public sector accounting reform and the impacts on transparency. The Portuguese case” adopts an institutional theory perspective to explore the determinants influencing the implementation of public sector accounting reforms within the Portuguese Central Public Administration. It identifies factors such as team experience and engagement as critical drivers of reform success, offering nuanced insights into the reform process. The paper highlights the impact of public sector accounting reforms on transparency within public sector organizations, aligning with broader goals of enhancing accountability and governance. Masters students can gain valuable methodological insights from this paper, learning how theoretical frameworks can be applied to analyze real-world reform processes and their outcomes.

In summary, these papers make substantial contributions to the understanding of public sector accounting reforms, offering methodological insights that can enrich the research endeavors of masters students. Finally, the elaboration of this report has contributed to consolidating the expertise of the candidate in the area of public sector accounting.