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Implementation of public sector accounting reform: the Portuguese case

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**Implementation of public sector accounting reform: the
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Abstract

This research aims to analyze the implementation of accounting reform in public administration in Portugal through three studies. The first discusses the adoption of the International Public Sector Accounting Standards (IPSAS) in the public sector in developed and developing countries, identifying differences in constraints and stimuli to implementation. Through a systematic review of the literature, it was identified that there are differences between constraints and stimuli in the implementation of accounting standards between developed and developing countries. In developed countries, the lack of training stands out as the main constraint and modernization is a stimulus for the implementation of the reform. In developing countries, the greatest constraint is the limitation of financial resources, with external and internal pressure as a stimulus. The second study analyzes the factors that influence the implementation of accounting reform in central public administration in Portugal and how this implementation affects transparency in organizations. The results, obtained through questionnaires and analyzed using the structural equation model and the application of the comparative qualitative analysis of diffuse sets, show that the most important positive factor is the experience and involvement of the teams, with the involvement of professional organizations being the factor with the greatest negative impact. It was also concluded that the implementation of the accounting reform results in greater transparency in the public sector, effectively achieving one of the main objectives of the reforms driven by IPSAS. Finally, the third study analyzes the impact of the implementation of the management accounting reform on the central public administration in Portugal and how it affects control, transparency, and management reporting within these organizations. The results, analyzed using a structural equation model, show that the reform has a positive effect on increasing the quality of management reporting and the transparency of public administrations, as well as contributing positively to increased control in these organizations. Together, our results contribute to the theoretical development of the area, by offering a better understanding of the determinants that influence the implementation of accounting reform in the public sector. The results will help managers of public organizations learn from past experiences and identify determinants that can make a potentially complex accounting reform process successful. At the same time, it will allow public institutions to understand the advantages of implementing management accounting and improving information for decision-making. This research also contributes to a better awareness of the Portuguese public sector accounting reform and its role in promoting greater transparency and control in public administration.

Implementation of public sector accounting reform: the Portuguese case

Keywords: Public accounting reform, Public Sector, IPSAS, ASSPA, transparency, control, Portugal

Resumo

Esta investigação tem como objetivo analisar a implementação da reforma da contabilidade na administração pública em Portugal através de três estudos. O primeiro discute a adoção das International Public Sector Accounting Standards (IPSAS) no setor público em países desenvolvidos e em desenvolvimento, identificando diferenças nos constrangimentos e estímulos à implementação. Através de uma revisão sistemática da literatura identificou-se que existem diferenças entre restrições e estímulos na implementação das normas contabilísticas entre países desenvolvidos e em desenvolvimento. Nos países desenvolvidos destaca-se a falta de formação como principal constrangimento e a modernização e como estímulo da implementação da reforma. Nos países em desenvolvimento, o maior constrangimento é a limitação dos recursos financeiros, verificando-se como estímulo a pressão externa e interna. O segundo estudo analisa os fatores que influenciam a implementação da reforma da contabilidade na administração pública central em Portugal e como essa implementação afeta a transparência nas organizações. Os resultados, obtidos através de questionários e analisados recorrendo ao modelo de equações estruturais e da aplicação da análise qualitativa comparativa de conjuntos difusos, mostram que o fator positivo de maior relevo é a experiência e o envolvimento das equipas, sendo o envolvimento das organizações profissionais o fator com maior impacto negativo. Concluiu-se ainda que a implementação da reforma contabilística resulta numa maior transparência no setor público, alcançando, efetivamente, um dos principais objetivos das reformas impulsionadas pelas IPSAS. Finalmente, o terceiro estudo analisa o impacto da implementação da reforma da contabilidade de gestão na administração pública central em Portugal e de que forma esta afeta o controlo, a transparência e os relatórios de gestão no seio destas organizações. Os resultados, analisados utilizando um modelo de equações estruturais, mostram que a reforma tem um efeito positivo no aumento da qualidade dos relatórios de gestão e na transparência das administrações públicas, além de contribuir positivamente para o aumento do controlo nestas organizações. Em conjunto, os nossos resultados contribuem para o desenvolvimento teórico da área, ao oferecer uma melhor compreensão das determinantes que influenciam a implementação da reforma contabilística no sector público. Os resultados ajudarão os gestores de organizações públicas a aprender com as experiências passadas e a identificar determinantes que podem fazer com que um processo de reforma contabilística, potencialmente complexo, possa ser bem sucedido. Simultaneamente, permitirá que as instituições públicas entendam as vantagens em implementar a contabilidade de gestão, melhorando a informação para a tomada de decisões. Esta investigação contribui ainda para uma melhor consciência dos cidadãos sobre a reforma contabilística do setor público

português e o seu papel na promoção de uma maior transparência e controlo na administração pública.

Palavras-chave: Reforma da contabilidade pública, Sector Público, IPSAS, SNC-AP, transparência, controlo.

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ABC - Activity Based Cost

ASSPA - Accounting Standardization System for Public Administrations

AVE - Mean-variance extracted

CR - Composite reliability

EC - European Commission

EFA - Exploratory Factor Analysis

EPSAS - European Public Sector Accounting Standards

EU - European Union

fsQCA - Comparative Qualitative Analysis of Fuzzy Sets

GASB - Governmental Accounting Standards Board

HTMT - Heterotrait-Monotrait Ratio of Correlations

IASB - International Accounting Standards Board

IFAC - International Federation of Accountants

IFRS - International Financial Reporting Standards

IMF - International Monetary Fund

IPSAS - International Public Sector Accounting Standards

IPSASB - International Public Sector Accounting Standards Board

IT - Information Technologies

KMO- Kaiser-Meyer-Olkin

MA - Management Accounting

NPM - New Public Management

OECD - Economic Cooperation and Development

PAS - Public Accounting Standard

PIR - Proportional Inconsistency Reduction

PLS - Partial Least Squares

POCAL - Public Sector Accounting Plan for local government

POCE - Public Sector Accounting Plan for education

POCISSS - Public Sector Accounting Plan for social security

POCMS - Public Sector Accounting Plan for health

POCP - Public Sector Accounting Plan

PRISMA - Preferred Reporting Item for Systematic Review and Meta-Analysis

PSA - Public Sector Accounting

PSC - Public Sector Committee

SEM - Structural Equation Modeling

UN - United Nations

VIF - Variance Inflation Factors

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Introduction

There is a progressive and growing need to modernize public management and governance orienting the public service toward the citizen, seeking to provide a quality, close and sustainable public service (Correia, Mendes, Dias, & Pereira, 2020). This need has triggered extensive reforms in public sector accounting procedures in recent decades, seeking to implement results-oriented management concepts and techniques (New Public Management), and simultaneously harmonizing and enhancing the comparability of financial information (Gómez-Villegas, Brusca & Bergmann, 2020; Sour, 2020).

As a result, financial and accounting reforms are reshaping the way public administrations operate worldwide (Biondi, 2016; Brusca & Martínez, 2016; Gomes, Brusca, & Fernandes, 2019; Gómez-Villegas et al., 2020; Polzer, Gårseth-Nesbakk, & Adhikari, 2019). The reforms are paving the way to greater accountability and transparency, and better budgetary control, resource allocation, and public investment decisions, and facilitating the taxation process and international cooperation and comparisons (Amalia, 2023; Cuadrado-Ballesteros & Bisogno, 2020; Tawiah, 2023b).

One of the main features of the reform was a shift toward accrual accounting, emulating private sector accounting (Biondi, 2016). The development of International Public Sector Accounting Standards (IPSAS) in 2005 was a key step for accrual accounting and the modernization of public-sector accounting in many countries (Gómez-Villegas et al., 2020) supported by the International Public Sector Accounting Standards Board (IPSASB), which has made great efforts to implement accrual-based accounting standards worldwide by developing IPSAS for use by governments and other public sector entities (IPSASB, 2019; Otavová, 2011).

Previous research on the adoption of IPSAS addresses different perspectives on implementation of the public accounting reform and raises issues ranging from advantages and disadvantages of implementing IPSAS (Connolly & Hyndman, 2006; Elmezughi & Wakil, 2018; Polzer et al., 2019; Tikk, 2010) to criticism of the standards (Brusca & Martínez, 2016; Mohammadrezaei, Banimahd, & Saleh, 2013). Few studies were found in the literature on the constraints and stimuli that can hinder or encourage reforms (Brusca & Martínez, 2016; Cohen, Costanzo, & Manes-Rossi, 2007; Nakmahachalasint & Narktabtee, 2019; Simpson, Tetteh, & Agyenim-Boateng, 2020), suggesting that although this topic is important, it is less studied.

In Portugal the Accounting Standardization System for Public Administrations (ASSPA) was approved in 2015, replacing the previous public accounting model, which was outdated, fragmented, and inconsistent. This system facilitated a comprehensive review of accounting and financial reporting practices in public administrations, involving the integration of the cash base,

and promoting accounting harmonization with the presentation of individual and consolidated budgetary and financial statements. The new Portuguese system includes reforms at three levels, namely Budgetary Accounting, Financial Accounting, and Management Accounting.

There are already some studies on the implementation of this reform in Portugal (Caiado, Carvalho, Silveira, & Simões, 2017; Jorge, Nogueira, & Ribeiro, 2021; Marques, 2015; Santos, 2017; Vaz, 2023), however, to the best of our knowledge, there is none on the factors that facilitated or hindered the reform of public accounting in Portugal nor how it affected the control, transparency, and management reports of these organizations.

In turn, the reform in the Portuguese public sector, at the level of financial, budgetary, and management accounting, is a unique opportunity to study an ongoing reform.

The overall goal of our research is therefore to analyze the implementation of the public accounting reform in the Portuguese central public administration, which we break down into two specific objectives, being the first the verification of which factors have influenced the IPSAS adoption and how it contributed to increased transparency, and the second the evaluation of the impact of management accounting implementation on control, transparency and managements reports.

To become aware of the state of the art on our topics, in Chapter one, we first perform a systematic review of the literature, as described by Moher, Liberati, Tetzlaff, and Altman (2009), which analyzes the constraints and stimuli that have been observed in different public accounting reforms implemented in developed and developing countries.

The final sample includes 90 academic papers published from 2000 to 2022 and 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.

This first research work offers a twofold contribution to the current literature on accounting reforms in public administration. First, it helps countries and institutions to learn from experience and better prepare for the accounting reforms of public administration that they will undertake, as managers of public organizations may be willing to make decisions in the adoption of IPSAS if they consider the factors established herein. Second, it helps countries and institutions to learn from the experience, to better prepare for the public administration

accounting reforms that they will undertake, and add greater transparency in the accountability of public accounts to citizens.

Complementing previous studies, this research identifies several 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 several important unexplored questions invite further research.

To address the first specific objective, Chapter two focuses on the implementation of the accounting reform in public administration in Portugal, analyzing the factors that influence the adoption of IPSAS in Portugal, as well as how it has contributed to increasing transparency. To carry out this study, a questionnaire was sent to all the organizations of the central Portuguese public administration and their financial managers. The data were analyzed using a structural equation model and a comparative qualitative analysis of diffuse sets (fsQCA).

This research allowed us to conclude that the greatest determinants of the implementation of PSA reforms in the Portuguese case are the experience and independence of the teams. Surprisingly, the lack of penalties had a positive influence on the implementation of the PSA reforms, while professional organizations had a negative influence. We also conclude 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.

This second work contributes to theory by adding 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. It also offers a double contribution to the current literature. It will help managers of public organizations to learn from past experiences and identify determinants that can make a potentially complex accounting reform process smoother, and it can improve citizens' understanding of the Portuguese public accounting reform and its role in promoting greater transparency in public administration, facilitating greater engagement between society and government, and ensuring that decisions align more effectively with overall social needs.

Chapter three addresses the second specific objective, we analyze and verify whether the managers of Portuguese central public organizations perceive that the implementation of management accounting improves control, enhances efficiency, increases transparency in public spending, and improves the quality of management reports. To obtain the necessary data, a questionnaire was sent out to all the organizations of the central Portuguese public

administration and their financial managers. The data obtained were also analyzed using a structural equation model using the Partial Least Squares (PLS) tool.

Results show that the implementation of the management accounting reform has a significant positive effect on increasing the quality of management reports and the transparency of public administrations and also show that the implementation of management accounting reform contributes positively to the increase of control in organizations. Thus, it can be concluded that financial managers perceive that the intended objectives of the accounting reform are being successfully achieved.

This third research work aims to make a double contribution to the literature. First, it aids public institutions in understanding the advantages of effectiveness in implementing management accounting, as managers in public organizations may make decisions based on the results obtained through management accounting. This includes aspects such as control, enhancing organizational efficiency and effectiveness, improving transparency in public spending, and elevating the quality of reporting by considering reliability, readiness, comparability, and benefit. Second, it enhances citizens' comprehension of management accounting in the Portuguese public sector, highlighting its role in bolstering control, transparency, and management reports. It fosters increased interaction between society and government, ensuring that decisions align better with societal needs.

The present dissertation, as a whole, has theoretical, practical, and social contributions. It makes a substantial contribution to academic knowledge and 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. This dissertation also contributes to theory by adding 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.

We also contribute to the transparency literature within the public sector, specifically concerning the implementation of accounting reforms, and extend to the literature regarding the public sector in Portugal, with a specific focus on the recent public sector accounting reform. 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. In terms of practical contributions, countries and their institutions can learn from

experience and be better prepared for the public administration accounting reforms they will undertake, as managers of public bodies may be willing to make decisions on the adoption of IPSAS if they consider the factors set out in Chapter one. If they are better prepared for the public administration accounting reforms they will undertake and increase transparency in public accountability to citizens. The determinants identified that advance or retard the implementation of accounting reforms can help managers of public organizations to make a potentially complex accounting reform process smoother. Managers of public organizations can make decisions based on the results obtained through management accounting. This includes aspects such as control, increased organizational efficiency and effectiveness, improved transparency in public spending, and increased quality of reporting, considering reliability, timeliness, comparability, and benefit.

In terms of social contributions, this study can improve citizens' understanding of the Portuguese public accounting reform and its role in promoting greater transparency in public administration, facilitating greater engagement between society and government, and ensuring that decisions align more effectively with overall societal needs. It can improve citizens' understanding of management accounting in the Portuguese public sector by highlighting its role in enhancing control, transparency, and management reporting. It promotes greater interaction between society and government, ensuring that decisions better align with society's needs.

This thesis proceeds as follows. Chapter one introduces the first research. Chapter two introduces the second research. Chapter three introduces the third research. Finally, the thesis is concluded in last chapter.

CHAPTER 1 - Constraints and stimuli in the implementation of public accounting reform: Systematic literature review and future research agenda

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

1.1. 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 (Gómez-Villegas et al., 2020; Sour, 2020; Steccolini, 2019). 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 (International Public Sector Accounting Standards Board [IPSASB], 2019; Otavová, 2011). 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 & Kuruppu, 2011; Grossi & 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, Saliterer, Sicilia, & Steccolini, 2021; van Helden, Adhikari, & Kuruppu, 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 & Narktabtee, 2019; Sellami & 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 & Archambault, 2009), external economic openness (Alon & Dwyer, 2014), and international pressures. Negative influences that have been identified include the complexity of standards (Inkina, 2019; Otrusnova & Pastuszkova, 2013), the legal system, and the political environment (Ademola, Ben-Caleb, Madugba, Adegboyegun, & Eluyela, 2020; van Helden & Reichard, 2018). Some of these studies addressed developed countries and others observed developing and emerging economies, demonstrating great heterogeneity of factors (Sellami & Gafsi, 2019). This is not surprising considering the economic, political, and cultural characteristics of the different countries implementing IPSAS (Mattei, Jorge, & Grandis, 2020; Polzer, Nolte, & Seiwald., 2021; Syarifuddin, 2018).

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 & 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 (2022). 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 and 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 accountabilities, 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 & Hoque, 2016), focus on the public governance development (Grossi & Argento, 2022), and analyze only emerging markets (e.g., Polzer et al. (2021) and 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 & 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 & 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, 2023a).

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 chapter 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.

1.2. Literature review

1.2.1. 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, 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 (International Public Sector Accounting Standards Board [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 (International Public Sector Accounting Standards Board [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, 2023a). None of the countries in the EU have directly adopted IPSAS (Brusca, Gómez-Villegas, & Montesinos, 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, Catalano, Di Carlo, & Erbacci, 2015; Bakre, Lauwo, & McCartney, 2017; Oulasvirta, 2014; Schmidhuber et al., 2022) 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, Morck, Xu, & Yeung, 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 & Martínez, 2016; Rossi, Cohen, Caperchione, & Brusca, 2016; Tawiah, 2023b), 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).

1.2.2. 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. Concentrating 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 & 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, Nasi and Steccolini (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 et al. (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, Vanhee, Rossi, Aversano, & van Cauwenberge., 2015; Polzer et al., 2021; Sellami & Gafsi, 2019; Tawiah, 2023b).

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 & 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 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, Adhikari, Hoque and Akter (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 & Christiaens, 2018; Jayasinghe et al., 2021; Rajib et al., 2019).

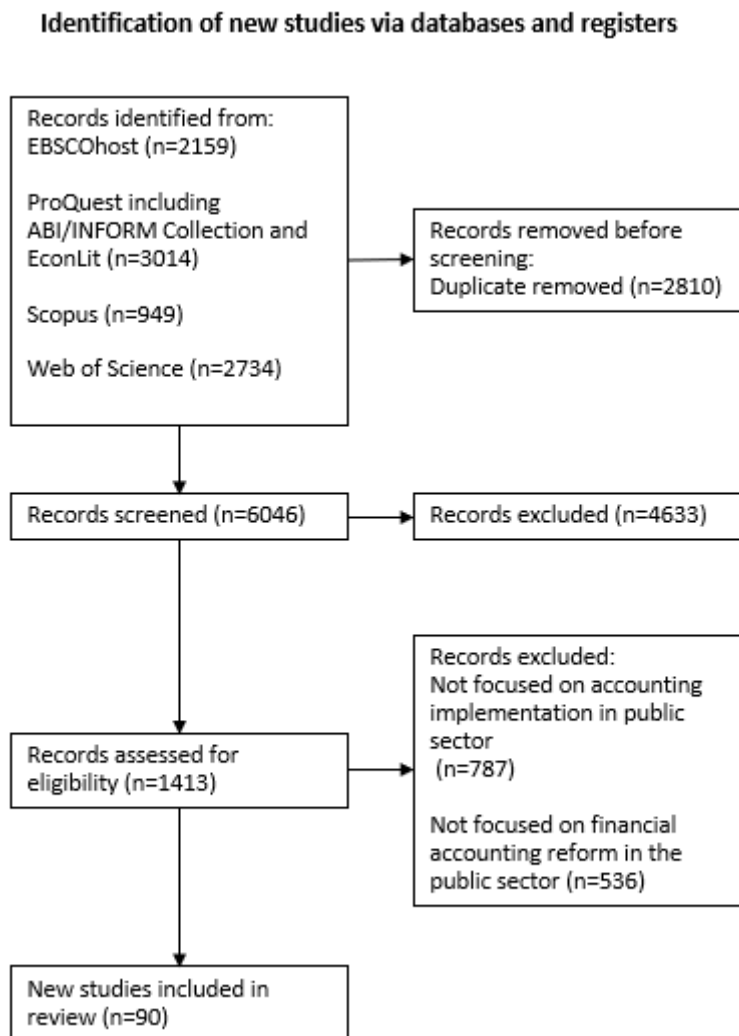
1.3. Methodology

1.3.1. 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; Page et al., 2021). This method has been used in previous literature reviews in the field of public sector governance (Abdullah, Krishnan, Zakaria,

& Morris, 2022; Agostino, Saliterer, & Steccolini, 2022; Dekker, Contreras, & Meijer, 2020; Kim, Li, Holzer, & Zhang, 2019; Mu & Wang, 2022; Vale, Amaral, Leal, & Silva., 2022).

Figure 0.1.PRISMA Flow Diagram



Source: Based on Moher et al. (2009) and Page et al. (2021)

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 1411.

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 (Annex A).

1.3.2. Descriptive analysis

Sources and timeline of the articles

Table 1.1 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 0.1: Distribution of papers by journal

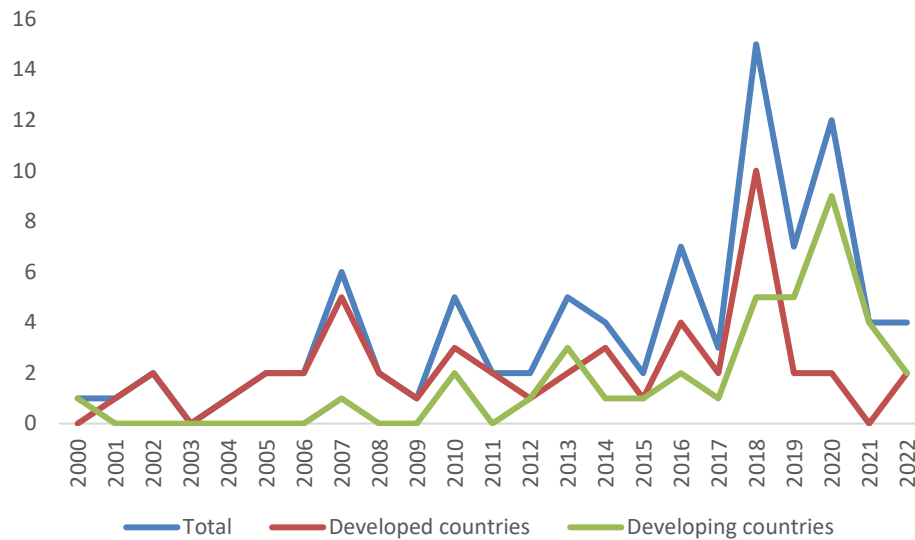
Journal	Total	Developed Countries	Developing countries	Multiple countries
Financial Accountability and Management	8	5	3	0
Public Money and Management	6	3	2	1
International Journal of Public Sector Management	4	1	3	0
Accounting, Auditing and Accountability Journal	3	3	0	0
International Journal of Public Administration	3	2	1	0

Journal	Total	Developed Countries	Developing countries	Multiple countries
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
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
Total	90	51	37	2

Source: Created by the 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 1.2). With the COVID-19 pandemic there was a fall in the number of publications pertaining to our topic.

Figure 0.2. Number of publications by year



Source: Created by the authors

Locus of studies

The country analysis (Table 1.2) 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 0.2: 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%

Countries	Number of articles	%
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: Created by the authors

Research methodologies

In terms of research methods, Table 1.3 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, Gomes, & Fernandes, 2012; Frank & Gianakis, 2010) followed by interviews (17.8%), and 20.2% of the papers analyze data collected through case studies (Lassou, Hopper, Soobaroyen, & Wynne, 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 0.3: Research methodologies

Methodology	Total	%	Developed countries	Developing countries	Multiple countries
Qualitative	59	65.6%	31	27	1
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
Quantitative	25	27.8%	16	8	1
Survey/Questionnaire	19	21.1%	12	6	1
Mixed Quantitative	3	3.3%	1	2	0
Compliance index	3	3.3%	3	0	0
Multiple	6	6.7%	4	2	0
	90		51	37	2

Source: Created by the authors

Theories on the analytical framework

Table 1.4 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, Catalano, & Erbacci, 2018; Hyndman & Connolly, 2011; Inkina, 2019) and developing countries (McLeod & Harun, 2014). In addition, many studies used multiple approaches that combine two (Caruana, 2017; Cohen & Karatzimas, 2018) or more theories (Carvalho, Camões, Jorge, & Fernandes, 2007), which is also the approach followed in studies from developed countries (Amirkhani, Aghaz, & Sheikh, 2019; Fahlevi, 2016). Finally, contingency theory is also used in the studies realized in developed countries.

Table 0.4: Theories on the analytical framework

Theory	Total	%	Developed countries	Developing countries	Multiple countries
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
	90		51	37	2

Source: Created by the authors

1.4. Findings

1.4.1. Constraints for public accounting reforms implementation

Table 1.5 shows the main results of the study, with the distribution of the papers by constraint topics, considering the developed, developing, and multiple countries.

Table 0.5: Constraints for public accounting reform implementation

Constraints	Total	Developed countries	Developing countries	Multiple countries
Exogenous	83	48	32	3
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
Endogenous	177	95	72	10
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: Created by the 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 & Narktabtee, 2019; Reginato, Fadda, & Pavan, 2010; van Helden & Reichard, 2018). Previous studies demonstrated that there is a lack of governmental commitment and involvement (Christiaens, 2001; Fuentes & Borreguero, 2018; Gomes, Fernandes, & Carvalho, 2015; Venieris & 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 & Nasseredine, 2019; Azevedo, Lino, Aquino, & Machado-Martins, 2020; Brusca & Martínez, 2016; Gómez-Villegas & Julve, 2012; Jani, Pifeh, & Faghani, 2020; Rajib et al., 2019; Shehadeh, 2022). 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 & Julve, 2012; Lokuwaduge & 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 & Nasseredine, 2019; Brusca et al., 2016).

Complexity of standards. Constraints regarding the complexity of standards were mainly observed in developed countries (Fuentes & Borreguero, 2018; Reginato et al., 2010). Otrusanova and Pastuszkova (2013) 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 & Martínez, 2016) and that there are difficulties in interpreting some of the technical criteria for implementing the standards (Elmezughi & Wakil, 2018; Hladika, 2022; Hyndman, 2016; Jorge, Carvalho, & Fernandes, 2007), with uncertainties and doubts surrounding accrual accounting (Bruno & Lapsley, 2018; Santis, Grossi, & Bisogno, 2019).

In developing countries, previous literature suggests that the lack of conceptual definitions creates difficulty in interpreting and implementing new accounting standards (Adhikari, Kuruppu, Ouda, Grossi, & Ambalangodage, 2019; Ahmad & Nasserredine, 2019; Al-otoom & 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 (Ada & Christiaens, 2018; Mohammadrezaei et al., 2013).

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 & 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, Kuruppu, & Matilal, 2013; Brito & Jorge, 2021; Harun, Eggleton, & Locke, 2021; Mbelwa, Adhikari, & Shahadat, 2019; Mohammadrezaei et al., 2013; Nagirikandalage & Binsardi, 2015; Thanh, Thanh, Thanh, & Thuy, 2020). Nyahuna 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 & Lapsley, 2018; Connolly & Hyndman, 2006; Jorge et al., 2007; Nakmahachalasint & Narktabtee, 2019; Reginato et al., 2010). In addition, some studies emphasize lack of penalties for those institutions that do not apply new reforms (Ada & Christiaens, 2017; Christiaens & van Peteghem, 2007; Venieris & Cohen, 2004).

In developing countries, empirical studies report the lack of penalties (Harun & Kamase, 2012; Sulu-Gambari, Stafford, & Stapleton, 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 & Bourmistrov, 2013; Christensen, 2002; Scheers, Sterck, & Bouckaert, 2006) and developing countries (Adhikari & Mellemvik, 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; Otrusinová, 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 & Lapsley, 2009; Christiaens & van Peteghem, 2007; Gomes, et al., 2015; Kowalczyk & Caruana, 2022; Tikk, 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 (Azevedo, Aquino, Neves, & Silva., 2020; Harun, 2007; Ismaili & Ismajli, 2020; Tetteh et al., 2021; Thanh et al., 2020; Yuliati, Yuliansyah, & Adelina, 2019). The resistance to change is one of the barriers (Al-otoom & Alrabba, 2022; Brito & Jorge, 2021; Tetteh et al., 2021) because the age of senior managers has a negative impact on accounting implementation (Neves & 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 & Lapsley, 2018; Gigli, Mariani, & Trivellato, 2018; Hladika, 2022; Jorge, Brusca, & Nogueira, 2019; Lutilsky, Žmuk, & Dragija, 2016; Scheers et al., 2006; Venieris & 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, Kaimenaki, & Zorgios, 2007; Klimavičienė & Mykolaitienė, 2007; Ridder, Bruns, & Spier, 2005).

Also in developing countries, technological weakness is one of the major factors affecting IPSAS implementation (Ademola et al., 2020; Ahmad & Nasseredine, 2019; Harun, An, & Kahar, 2013; Ismaili, Ismajli, & Vokshi, 2021; Mbelwa et al., 2019; Yahya, Hasibuan, Torong, & Muda., 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 & Hyndman, 2006; Elmezughi & Wakil, 2018; Fuentes & Borreguero, 2018; Nakmahachalasint & Narktabtee, 2019; Pina & 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 & Mellemvik, 2010; Ahmad & Nasseredine, 2019; Brito & 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 & Mykolaitienė, 2007; Lentner, Molnár, & Nagy, 2020; Nakmahachalasint & 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 & Nasseredine, 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, Stamatiadis, & Vasiliou, 2012; Fuentes & Borreguero, 2018; Hladika, 2022; Ismaili et al., 2021; Jones & Caruana, 2014; van Helden & Reichard, 2019).

In developing countries, empirical literature underscores scarcities of human capital (Brito & Jorge, 2021; Gómez-Villegas et al., 2020; Mohammadrezaei et al., 2013). This problem is confirmed by Yuliati et al., (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 & Christiaens, 2017; Christiaens, 2001; Haldma & Kenk, 2014; Nakmahachalasint & Narktabtee, 2019). The study of Carvalho et al. (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 & 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 & Lapsley, 2009; Christiaens & van Peteghem, 2007; Hrůza & Valouch, 2016; Hyndman & Liguori, 2018; Scheers et al., 2006; van der Hoek, 2005). For example, Brusca and Montesinos (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).

1.4.2. 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, Caba-Pérez, & López-Hernández, 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, Wingard, & van Biljon, 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

Nasseredine (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.

1.4.3. Stimuli for public accounting reforms implementation

Table 1.6 shows the main results of the study, with the distribution of the papers by stimuli topics, considering the developed, developing, and multiple countries.

Table 0.6 Stimuli for public accounting reform implementation

Stimuli	Total	Developed countries	Developing countries	Multiple countries
Exogenous	21	9	12	3
External pressure	17	5	10	2
Financial crisis	7	4	2	1
Endogenous	50	29	19	2
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: Created by the 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 & Kuruppu, 2011; Grossi & Soverchia, 2011; Lokuwaduge, 2016; Yapa & 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 & Christiaens, 2018; Gomes et al., 2015; Haldma & 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 & Silva, 2020; Mbelwa et al., 2019; 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 et al.(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 & Silva, 2020). Harun et al. (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 & Kenk, 2014), Hungary (Lentner et al., 2020), and Malta (Jones & 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 & Jorge, 2021; Krishnan, 2021; Mbelwa et al., 2019; Nagirikandalage & Binsardi, 2015; Neves & Gómez-Villegas, 2020; Rajib & 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, Agyenim-Boateng, Simpson and Susuawu (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 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, Siraj, & Baharim, 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 & Caruana, 2014; Kowalczyk & 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 et al., (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 & Hyndman, 2006; Eriotis et al., 2012; Nakmahachalasint & 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 & 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 pre-requisites 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 & 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 et al. (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, Puspitasari, & Yunita, 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.

1.4.4. 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 & Martínez, 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 & 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 & 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 legitimization 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 & Gafsi, 2019), and the adoption of accounting reforms is the external factor that can signal improvements in public sector financial reporting systems (Tawiah & 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).

1.5. Conclusion

This chapter 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 & 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 & 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, 2018), 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., 2021). 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.

CHAPTER 2 - The determinants in public sector accounting reform and the impacts on transparency. The Portuguese case.

Abstract

Purpose: Based on the institutional theory, this article analyzes the determinants that influence the implementation of public sector accounting (PSA) reforms 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 reforms 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.

2.1. 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, Porumbescu, & Grimmelikhuijsen., 2017; Grimmelikhuijsen & 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 & 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 & 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 & 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 & 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 & IFAC, 2017).

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

Constraints in the IPSAS implementation process are also reported, and include the political environment and commitment (Fuentes & Borreguero, 2018; Nakmahachalasint & 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 & Christiaens, 2017; Bruno & Lapsley, 2018). Other aspects include a deficiency in accounting knowledge and skills (Kowalczyk & 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, Inna, & Serrasqueiro, 2024; Schmidhuber et al., 2022), 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)¹. 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

¹ Translation of SNC-AP – Sistema de Normalização Contabilística para as Administrações Públicas

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).

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 & Martínez, 2016; Carini, Giacomini, & Teodori 2019; Georgescu, 2021; Haija, AlQudah, Aryan, & Azzam, 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 & 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 study 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 & Christiaens, 2017; Brusca & 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.

2.2. 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 (SNC-AP or ASSPA in English). The primary objective of this committee was to develop 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 (Decree-law 192/2015, 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 (Decree-law 84/2019, 2019).

Previous studies have shown that external and regulatory pressures are the main determinants of the adoption of Portuguese PSA reforms. Gomes, Carvalho and Fernandes (2015) 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, and Portugal as a member of the European Union 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, Viseu and Silva (2022) 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 (Gomes et al., 2015).

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 (Brusca & Martínez, 2016), highlighting the importance of determinants such as technical capacity in the implementation of PSA reforms in Portugal. In addition, Gomes et al. (2015) 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 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. 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.

2.3. Literature and hypotheses

2.3.1. 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 & 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 & 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, Lago-Peñas, Reyes-Santias and Santiago-Boubeta (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 & Gårseth-Nesbakk, 2016; Bekiaris & 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 & 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 (International Accounting Standards Board [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 (International Accounting Standards Board [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 & Salia, 2019; Brusca & Martínez, 2016; Gourfinkel, 2022; Mattei et al., 2020; Sour, 2022; Tawiah, 2023a; Thanh et al., 2020).

2.3.2. Human and information technologies (IT) resources

Human resources are the pillar of any organization, and weakness in human resources 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 & Borreguero, 2018; Hladika, 2022; Ismaili et al., 2021; Jones & Caruana, 2014; van Helden & Reichard, 2018). 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 & Martínez, 2016; Elmezughi & 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 standards has been observed in several realities (Brusca & Martínez, 2016). Challenges are due mainly to difficulties in interpreting some of the technical criteria for implementing the standards (Elmezughi & Wakil, 2018; Hladika, 2022) and uncertainties surrounding accrual accounting (Bruno & 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 & Lapsley, 2018; Gigli et al., 2018; Hladika, 2022; Jorge, 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 & 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, Borgert, & Fabre, 2019; Madkur & 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, Silva, & Alves, 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.

2.3.3. Lack of penalties

Empirical studies report that the lack of penalties (Harun & 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 (International Federation of Accountants, 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 & 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 & Sabharwal, 2009). To test this relationship, we posit the following:

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

2.3.4. 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 & Liguori, 2018). Eriotis et al. (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 & Liguori, 2018).

Studies conducted by the International Federation of Accountants underscore the significance of experienced teams in bolstering transparency (International Federation of Accountants & The Charter Institute of Public Finance & Accountancy, 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.

2.3.5. 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, Rodrigues, & Fernandes, 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 & 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 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 & 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 & 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.

2.3.6. Public sector accounting reform

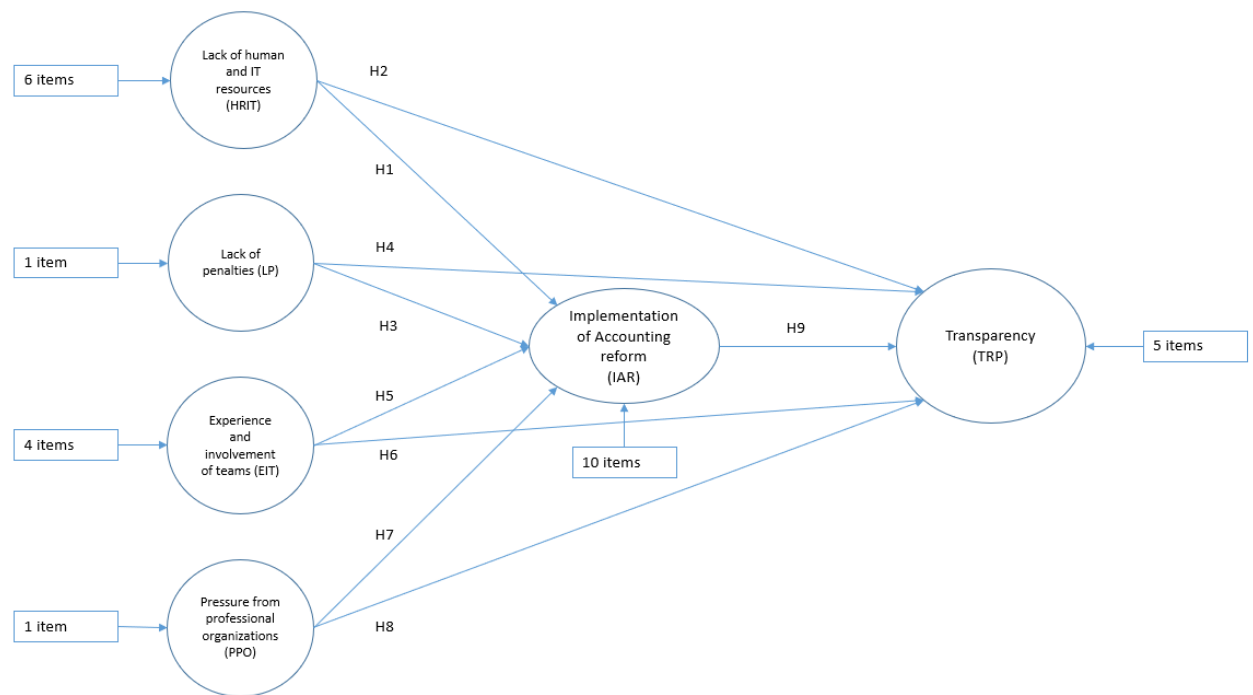
Several studies indicate that the accounting reforms that have taken place in the PSA reform, with a special focus on the implementation of IPSAS, have led to increased transparency in the PSA (Atuilik & Salia, 2019; Brusca & Martínez, 2016; Gourfinkel, 2022; Mattei et al., 2020; Sour, 2022; Tawiah, 2023a; 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 & 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 0.1 Conceptual model



2.4. Research Design

2.4.1. 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 (Annex B).

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%) (Annex C).

2.4.2. 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 2.1:

Table 0.1 Measurement of the variables that contribute to the implementation of the accounting reform

Cod.	Variables	Items from questionnaire	Main findings in the literature
HRIT	Lack of human and IT resources	1. There were sufficient human resources in the organization to implement the standards. 2. The organization has a single database that holds all issues related to financial, budgetary, and management accounting. 3. The implementation team has adequate equipment and infrastructure for the implementation of the new regulations.	(Bruno & Lapsley, 2018; Caruana, 2017; Fuentes & Borreguero, 2018; Gigli et al., 2018; Hladika, 2022; Ismaili et al., 2021; Jones & Caruana, 2014; Jorge, et al., 2019; Klimavičienė & Mykolaitienė, 2007; Lutilsky et al., 2016; van Helden & Reichard, 2018)

Cod.	Variables	Items from questionnaire	Main findings in the literature
		4. Top management has appropriate qualifications/skills for the implementation of the new regulation. 5. There was difficulty in interpreting the norms, conditioning their implementation. 6. Lack of visibility of benefits influenced implementation.	
LP	Lack of penalties	1. Penalizing the entity for non-implementation of the standards would have ensured faster implementation.	(Harun & Kamase, 2012; Sulu-Gambari et al., 2018)
EIT	Experience and involvement of teams	1. The accounting literacy of the implementation team was an enabler in the implementation of the standards. 2. The professional experience of the members of the implementation team benefited the implementation of the standards. 3. There was a commitment from top management to the implementation of the standards. 4. The implementation team had a voluntary and proactive intervention in the process.	(Eriotis et al., 2012; Hyndman & Liguori, 2018; Ismail et al., 2018; Scheers et al., 2006)
PPO	Pressure from professional organizations	1. The implementation of the standards has benefited from the actions of professional organizations.	(Ada & Christiaens, 2017; Gomes, et al., 2015; Steccolini, Saliterer, & Guthrie, 2020)

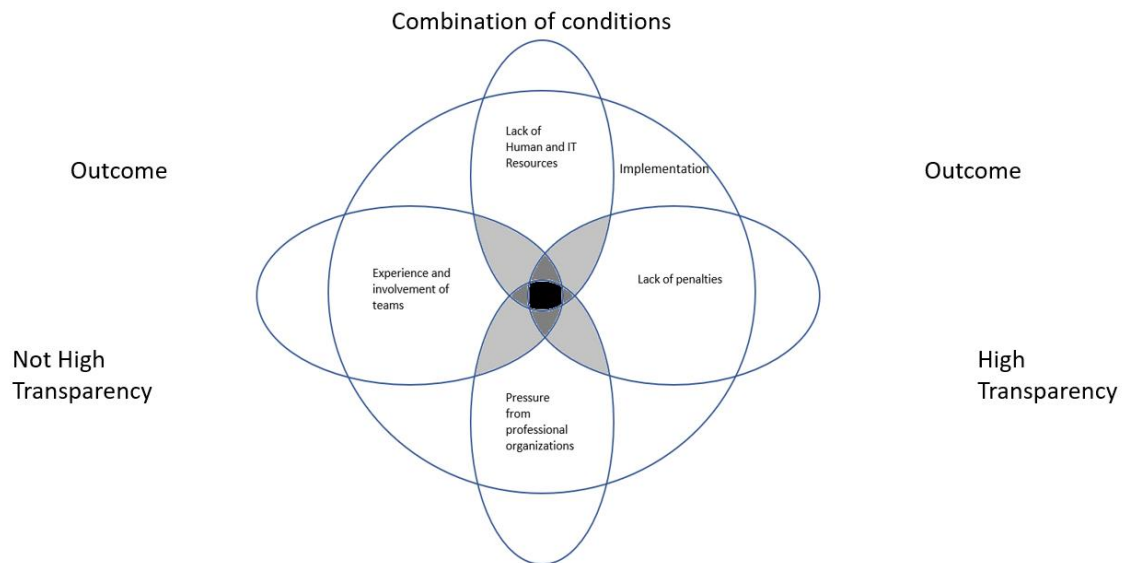
2.4.3. Data analysis

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 & 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, Wende, & Becker, 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 2.2, 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 0.2 Venn diagram of the combination of conditions



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.

2.5. Results and discussion

2.5.1. 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 2.2) (Hair et al., 2017).

Table 0.2 Composite reliability, extracted mean-variance, correlations, and discriminant validity checks

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

Note: α – 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.

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 2.2, the extracted mean-variance (AVE) for all constructs exceeded the cut-off of 0.5 (Bagozzi & 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 2.2) be greater than its highest correlation with any construct (Fornell & Larcker, 1981). Table 2.2 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, Ringle, & Sarstedt, 2015). As Table 2.2 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 R² value for each endogenous variable as a measure of the predictive accuracy of the model; and Stone-Geisser Q² 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 R² 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 & Miller, 1992). We used

bootstrapping with 5,000 subsamples to assess the significance of parameter estimates (Hair et al., 2017).

Table 0.3 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

Table 2.3 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 & Lapsley, 2018; Elmezughi & 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 & 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 & 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 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 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 & Salia, 2019; Brusca & 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 0.4 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

Table 2.4 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 & 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 & 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 & 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 2.5 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 11 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 2.5 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 2.5 shows that the two configurations explained 54% of the *ht*.

Table 0.5 Settings for high and low influence on transparency

	HIGH INFLUENCE (HT)			LOW INFLUENCE (~HT)		
CONFIGURATION	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”.

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 & 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 2.5 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 ASSPA 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 $\sim ht$.

2.6. 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 & Liguori, 2018). In addition, within the institutional logics shaping involvement and expectations of actors (DiMaggio & 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 & 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 (Abeyasinghe & Samanthi, 2016; Flynn, Moretti, & Cavanagh, 2016; Shehadeh, 2022; Vaz, 2023).

Our study stands out from others in the literature that share a similar subject of study (Ada & Christiaens, 2017; Agasisti et al., 2018; Elmezughi & Wakil, 2018; García-Fénix & 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, Silva, Patuleia, & González-Rodríguez, 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 & Martínez, 2016; Gómez-Villegas et al., 2020; Polzer et al., 2019; Shehadeh, 2022; Wang & 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, Ríos, & Guillamón, 2023; Lentner et al., 2020; Rogosic & 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 & Jorge, 2017; Polzer, Grossi, & Reichard, 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 (International Federation of Accountants & The Charter Institute of Public Finance & Accountancy, 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.

CHAPTER 3 - Impact of management accounting reform in the public sector: the Portuguese case.

Abstract

Purpose: Based on the New Public Management Theory, this study analyzes the impact of the implementation of management accounting reforms in the Central Public Administration in Portugal and how this implementation affects control, transparency, and management reports within these organizations.

Design/methodology: The research methodology is based on a questionnaire sent to all central public administration institutions in Portugal and the data were analyzed using a structural equation model, using the Partial Least Squares (PLS) tool.

Findings: The main findings indicate that the implementation of the management accounting reform has a significant positive effect on increasing the quality of management reports and the transparency of public administrations, as well as contributing positively to the increase of control in these organizations. Thus, it can be concluded that managers of organizations perceive that the intended objectives of the accounting reform are being successfully achieved.

Originality: The accounting reform in public administration is still ongoing in Portugal and is a unique opportunity to study the implementation of the reform in the area of management accounting with the heads of the bodies responsible for this task. This study allows us to know their perceptions regarding the impact that the implementation of the management accounting reform has on the control, transparency, and management reporting, objectives of the ongoing reform.

Research limitations: The study has some limitations, as the data are limited to central public administration, leaving the impact on local and regional administration unstudied.

Practical implications: This study helps public institutions to understand the advantages of implementing management accounting since their managers need information for decision making. This includes aspects such as control, enhancing organizational efficiency and effectiveness, improving transparency in public spending, and elevating the quality of reporting by considering reliability, timeliness, and comparability.

Social implications: This study enhances citizens' comprehension of management accounting in the Portuguese public sector, highlighting its role in improving control, transparency, and management reports. It fosters increased interaction between society and government, ensuring that decisions align better with society's needs.

Keywords: Management accounting; IPSAS, Public sector, Control, Transparency, Management report, Portugal

3.1. Introduction

In recent decades substantial reforms in public sector accounting (PSA) have enhanced transparency and accountability in resource allocation and government statistical reporting (OECD & IFAC, 2017). These reforms have been propelled in large part by the adoption of International Public Sector Accounting Standards (IPSAS) endorsed by global institutions such as the World Bank, the International Monetary Fund, the Organization for Economic Co-operation and Development (OECD), the United Nations, and the European Commission. The use of accrual accounting, especially with the adoption of IPSAS, is a prerequisite for the development of advanced cost accounting (Bertoni, Rosa, & Lutitsky, 2017), now an essential and inseparable element of good management accounting (MA) (Drury, 2006). This enhancement is closely associated with the principles of the New Public Management (NPM), which promotes accounting reforms within public institutions by introducing performance measurement and management control procedures in public sector entities (Eriotis et al., 2012).

The need for adequate management control systems is especially acute in times of financial difficulties, when resources are in great demand and under considerable constraints, as evidenced by the crisis of 2008 (Labrador & Olmo, 2019; Lautour, 2018). As a basis for sound information systems, reforms in public accounting also cover MA (Orelli, Padovani, & Katsikas, 2016) because it focuses on the control and evaluation of organizational performance (Fandel, Hofmann, & Schreck, 2020) and ensures report quality for internal and external users by providing accurate information (Ojra, Opute, & Alsolmi, 2021). This contributes to transparency in decision-making, accountability for decision-making processes, and citizen trust in government (Gray & Kang, 2014).

The literature shows that there is a relationship between MA and control, considering that MA is an important tool for management control, as it supports management in efforts to ensure that the organization's plans and goals are achieved, by allowing the analysis of options, advance planning, monitoring of past performance, and coordination of overall activities (Ahmed, Abdulrahman, & Ghani, 2019; Höglund, Caicedo, Mårtensson, Svärdsten, 2021; Jiang, 2019). Other studies also demonstrate the relationship between MA and transparency in the public sector, identifying that while MA focuses on the effective use of internal data for decision-making, transparency involves the disclosure of this information to stakeholders (Dimitrić, Škalamera-Alilović, & Duhovnik, 2016; Fiondella, Macchioni, Maffei, & Spanò, 2016; Malmi,

2016). Finally, previous studies mention that MA contributes to information reporting that allows the preparation of reports hyper-focused on evaluating and improving management and business operations (Brusca, Labrador, & Condor, 2019; Hamawandy, Qader, Mohammed, Ali, & Kareem, 2021; Veledar et al., 2020). However, some literature points out several obstacles to the implementation of MA. These include political, technical, and cultural barriers (García-Fénix & González-González, 2020), fear of transparency, insufficient learning process, poor understanding of control, overly ambitious targets (Plötz, 2022), resistance to change, unreliable data in current account systems, lack of management will, and legal barriers (Brusca et al., 2019).

Although the literature about PSA reform processes is broad, especially regarding the adoption of the IPSAS (Liberato et al., 2024; Schmidhuber et al., 2022), studies addressing the impacts of implementation of management accounting reforms are rare, and even fewer explore the control and transparency of these processes. There is thus still a considerable gap in understanding the implementation of PSA management reform and the impacts on control, transparency, and management reporting of the organizations (Mohr, Raudla, & Douglas, 2018).

The reform of PSA in Portugal began in 2015 with the publication of Decree-Law 192/2015, of 11 September, which approved the Public Administration Accounting Standardization System (ASSPA). This PSA reform in Portugal is unique compared to those that have taken place elsewhere, as in other countries the accounting reforms addressed the implementation of IPSAS only (Mosoba, 2017; Polzer et al., 2019; Silva, Junior, Ferreira, & Júnior, 2022). In Portugal, in addition to the IPSAS, reforms in budgetary accounting and MA have also been implemented on a mandatory basis, covering Central Government, Local Government, and Regional Administration (Marques, 2018). The ongoing PSA reform in Portugal provides a rare opportunity to investigate the implementation of MA by engaging with the individuals overseeing this process and exploring their perceptions regarding the challenges and incentives they encountered (Alsharari & Daniels, 2023).

The goal of this study is to examine the impact of the implementation of MA reforms in the public sector in Portugal's central public administration and how this implementation affects control, transparency, and reporting within these organizations. We applied a structural equation model (SEM) with the PLS tool (Hair et al., 2017) to the data gathered from a survey made available to financial managers in all Portuguese central public administration (495 institutions) from September 2022 to March 2023, achieving a 34% response rate across all government areas.

Our main findings, aligned with the NPM theory, indicate that the implementation of the MA reform has a significant positive effect on increasing the quality of management reports and the transparency of public administrations. The results also show that the implementation of

MA reform contributes positively to the increase of control in organizations. Thus, it can be concluded that Portuguese managers of public organizations perceive that the intended objectives of the MA reform are being successfully achieved. In addition, despite the positive contribution of the PSA reform, our study suggests that Portugal's implementation of MA is below the European average, though these findings pertain to an early phase of the reform's implementation (Mohr et al., 2018).

This study contributes to the comprehension of PSA management reform offering empirical insights from a nation presently in the process of adopting international accounting standards. Notably, there is limited published research on the Portuguese context (Jorge et al., 2021; Marques, 2018), contrasting with the more plentiful studies available on this subject for other countries (Dmitrović-Šaponja & Suljović, 2017; Fiondella et al., 2016; Papiorek & Hiebl, 2023; Veledar, Gadzo, & Lalic, 2020). In addition, by integrating control, transparency, and management reports in our analysis we investigate the overarching impact of these management reforms on the public sector. We contend that understanding the mechanisms through which reforms impact control and transparency is vital for policymakers and practitioners alike (Nakmahachalasint & Narktabtee, 2019; Tóth, 2020).

The subsequent sections include background about PSA reforms in Portugal (Section 2), literature review and hypotheses formulation (Section 3), research design overview (Section 4), and presentation of results and discussion (Section 5). The paper concludes in Section 6, offering suggestions for future research directions.

3.2. Background literature

3.2.1. New Public Theory and MA Reforms

The first wave of public sector reform was NPM in the aftermath of the oil crisis in the 1970s, triggered by questioning the way in which the social state was being implemented. It was inspired by ideas associated with neoliberalism and public choice theory (van Helden et al., 2021). The NPM first spread in developed and Anglo-Saxon states and thereafter across much of Europe and to developing and transitional countries. In developed countries, the impetus for NPM arose from fiscal crises characterized by reduced revenues and increased spending through the expansion of social welfare services resulting in the quest to cut costs (Bevir, 2024). The stated goal of NPM was to increase efficiency and effectiveness in public sectors. The means of doing so included the adoption of management models in use in the private sector, positioning

the citizen as a central element of public activity, and ascertaining (and controlling) costs in comparison to the public services provided.

In this vein recent years have witnessed increased harmonization in financial accounting all over the world, driven by advances in information technologies (Pistoni & Zoni, 2000). An important trigger for modernization and harmonization in many countries was the development of IPSAS (Gómez-Villegas et al., 2020). IPSAS aims to improve the quality of general-purpose financial reporting by public sector entities, increase transparency and accountability in the public sector, and improve the comparability of financial statements worldwide.

Several authors have used NPM in their studies of the implementation of PSA reforms. Van Helden and Reichard (2018) investigated why central governments in four European countries have moved from a cash budgeting system to accrual budgeting and concluded that the change process in all four cases was influenced by several contextual factors, such as cash-accounting legacies and previous NPM reforms. Brusca et al. (2016) used this theory to justify that the use of exercise accounting generates political rationality and incorporates a set of calculation techniques that reduce the autonomy and legitimacy of the State. An important element of NPM can be seen in the accounting practices with a move from cash to accrual accounting, with a stronger focus on the adoption of IPSAS, together with the adoption of MA techniques to measure and control activities (Baird, Harrison, & Reeve, 2007; Clarke & Lapsley, 2004; Cohen et al., 2007; Venieris & Cohen, 2004). One of the objectives of accounting reforms in the public sector is to contribute to the financial control, legality, economy, efficiency, and effectiveness of public spending, for which management accounting plays a leading role.

The level of implementation of MA in the public sector varies from country to country and depends on several factors, such as the specific characteristics of the public sector context, government interventions, and the wishes of other stakeholders (Oyewo, Ajibolade, & Obazee, 2019). Table 3.1 shows findings from the literature on the implementation of MA in the public sector in the last 10 years.

Table 0.1 Implementation of Management Accounting in the Public Sector

Authors and year	Theory	Countries	Findings
García-Fénix and González-González (2020)	New Institutional Sociology	Spain	Low level of local authorities' information on the cost-effectiveness.
Khodachek and Timoshenko, (2018)	NPM	Russia	Resistance to incorporating MA practices.

Authors and year	Theory	Countries	Findings
Kuroki and Motokawa, (2021)	Decision-making theory	Japan	61.4% of local governments had introduced non-financial performance measures.
Lutitsky et al., (2016)	NPM	Croatia	Poor usage of cost accounting methodology in public hospitals.
Mättö and Sippola, (2016)	NPM	Finland	MA is not used to support decision-making.
Mohr et al., (2018)	NPM	19 European countries	The score for the use of cost accounting in public administration was on average 4.43 (maximum = 7).
Orelli et al., (2016)	NPM	Greece and Italy	Widespread adoption of MA techniques.
van Helden and Uddin, (2016)	NPM	Emerging Economies	Difficulties to import Western-centric public-sector MA ideas.
Wahab, Mohamad, & Said (2018)	NPM	Malaysia	Implemented the ABC system.

Source: authors

Previous research reveals considerable variation in the implementation and use of MA in the public sector across countries. Although NPM theory suggests that the positive association between performance management and MA could be due, at least partially, to efforts to improve the quality of organizational information, in a 2012 European study the average implementation of MA score was approximately 4.43 out of 7 for a group of countries, including Austria, Croatia, Denmark, Estonia, Finland, France, Germany, Hungary, Iceland, Ireland, Italy, Lithuania, the Netherlands, Norway, Portugal, Serbia, Spain, Sweden, and the UK (Mohr et al., 2018). Although it has implemented a costing tool for local authorities, in Spain only 39.6% provided information on Cost-Effective Services to the Regional Finance Ministry in 2016, without any applied sanctions (García-Fénix & González-González, 2020).

In Croatia there is a notable underutilization of cost accounting in public hospitals (Lutitsky et al., 2016), and in Finland managers tend to underestimate implementation challenges and overestimate the technical functionalities of MA tools (Mättö & Sippola, 2016). Italian and Greek municipalities have adopted new integrated or parallel accounting systems, which represent more fertile fields for the implementation of MA techniques, but these countries are poor implementers (Orelli et al., 2016).

In Malaysia, where the Activity Based Cost (ABC) system was implemented in 2012, users report a relatively low usefulness of the information (3.65 on a scale of 0 to 5). Despite efforts by international organizations to promote Western-centric ideas of public sector MA, emerging

economies face challenges in interpretation, adaptation, transformation, and resistance – also observed in the implementation of IPSAS (van Helden & Uddin, 2016).

3.2.2. Impact of MA reforms on control, transparency, and management report

Public sector organizations have been subject to several reforms in recent decades, especially at the accounting level with the implementation of IPSAS. These reforms have benefitted from incentives but also encountered several hurdles in their implementation (Liberato et al., 2024). In this trend of paradigm shifts, greatly influenced by NPM, MA practices are an important source of organizational information (Nuhu, Baird, & Appuhamilage, 2017). Several countries are moving toward more widespread adoption of MA, driven by the need to address rising debt levels and shrinking budgets, along with public criticism related to government management (International Federation of Accountants, 2000).

Management and cost accounting tools can help control and potentially reduce expenses in the public sector, thereby enhancing the efficiency and effectiveness of public administration (Veledar et al., 2020). By using performance indicators, comparisons between budget users of similar size can be made, taking into account factors such as the number of employees, residents using services, available funds, and budget size. This approach increases transparency and facilitates constructive dialog with public administrations (Veledar et al., 2020).

Recognizing control, transparency, and management reporting as essential factors for organizational management, Table 3.2 presents studies on MA and the impact of these characteristics.

Table 0.2 Impact of Management Accounting on control, transparency, and management report

Authors and year	Theory	Country	Findings
Panel A: Control			
Berisha and Asllanaj, (2017)	-	Kosovo	Applying accounting techniques helps the firm manage costs and improve product quality.
Dmitrović-Šaponja and Suljović, (2017)	NPM	Serbia	MA has a positive impact on cost control and cost reduction.
Labrador and Olmo, (2019)	NPM	Spain	The central government designed a cost accounting system for local governments to improve efficiency.

Authors and year	Theory	Country	Findings
Orelli et al., (2016)	NPM	Greece and Italy	Performance evaluation and cost control.
Papiorek and Hiebl, (2023)	-	Germany	MA is positively related to management control effectiveness.
Panel B: Transparency			
Alsayegh, (2020)	-	Several countries	ABC results in greater transparency of costs which have implications for planning, controlling, and decision-making.
Alsharari and Youssef, (2017)	Old institutional economics; new institutional sociology	Jordan	MA ensure transparency and accountability in all public resource transactions.
Bertoni et al., (2017)	-	Croatia and Italy	Cost accounting ensures greater transparency in the use of public resources.
Fiondella et al., (2016)	Theory of organizational change	Italy	MA has sought to achieve transparency, efficiency, and accountability.
Panel C: Management report			
Brusca et al., (2019)	Institutional Theory	Spain	A useful tool for management and accountability purposes.
Hamawandy et al., (2021)	Economic Theory	Iraq	Revealing aspects of MA techniques and other financial disclosures is significant.
Jiang, (2019)	Economic theory and financial theory.	China	MA is to mine, analyze, communicate, and use financial and non-financial information related to decision-making.
Rahman, Rahman, Azhar, Omar, & Said (2015)	-	Malaysia	Inform better before deciding matters within their organizations.
Veledar et al., (2020)	NPM	Bosnia and Herzegovina	Improving the quality of accounting information as a basis for decision-making.

Earlier reported findings (Table 3.2, Panel A) allow us to conclude that MA contributes to increased control (Berisha & Asllanaj, 2017; Dmitrović-Šaponja & Suljović, 2017; Labrador & Olmo, 2019). For example, Berisha and Asllanaj (2017) found that in Kosovo almost 50% of managers say that the application of accounting techniques helps the company manage costs and improve the quality of products. In the same line, Dmitrović-Šaponja and Suljović (2017)

found that in Serbia there is a synergetic effect on MA implementation in terms of positive impact on cost control and cost reduction.

Labrador and Olmo (2019) and Orelli et al. (2016) concluded that in the wake of the financial crisis that shook several countries (forcing governments to take steps to control government spending and rationalize the use of resources) the central government designed a cost accounting system for local governments in an effort to improve efficiency, but neither managers nor experts consider that the new system has added value. For Germany, Papiorek and Hiebl (2023) found a positive relationship between information systems quality in MA and management control effectiveness.

Studies show that implementing MA influences transparency (Table 3.2, Panel B). The concept of a transparent entity can be defined from various perspectives but they all converge on 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).

One of the factors is the use of MA techniques such as the ABC system, which results in greater transparency of costs, which has implications for planning, controlling, and decision-making (Alsayegh, 2020). In Jordan, the processes of MA change led to enhanced transparency and accountability of the executive to parliament, the general public, and other external agencies in all public resources transactions including allocation, use, and monitoring (Alsharari & Abougamos, 2017). The same conclusion was reached in studies of hospitals and healthcare organizations in Croatia and Italy, in which both showed that implementation of cost accounting ensures better governing of hospital resources allowing more transparency in spending public funds (Bertoni et al., 2017; Fiondella et al., 2016).

For the management report factor (Table 3.2, Panel C), previous literature suggests that management reports are analytical tools used by managers to inform the performance of the business in several areas and that the reports help business leaders to make more accurate, data-driven decisions. Unlike financial accounting, which focuses on the summary, analysis, and reporting of financial transactions about a business that has been done in the past, MA focuses on how managers use accounting information to better inform themselves before deciding matters within their organizations, which allows them to better manage and perform control functions (Rahman et al., 2015).

Whereas MA is to mine, analyze, communicate, and use financial and non-financial information related to decision-making (Jiang, 2019), it improves the quality of accounting information as a basis for decision-making in the field of public management (Rahman et al.,

2015; Veledar et al., 2020). A study carried out on Spanish universities revealed that these give greater value to the usefulness of cost accounting for accountability purposes so that they can inform stakeholders about the cost of their activities (Brusca et al., 2019). Also, for Iraq Hamawandy et al. (2021) found that to improve the accuracy of financial reporting, the importance of revealing the aspects of MA techniques and other financial and non-financial disclosures is significant. These findings in the literature show the importance of management accountability in the supply of information to the government. We therefore consider that this topic, like the previous ones, should be studied in the context of the ongoing reform in Portuguese public accounting.

3.2.3. Public Sector Accounting Reforms in Portugal

Until the 1990s PSA in Portugal was characterized by the provision of budgetary information with the main concern being accountability and compliance with law, which made it impossible to strictly control public spending. With the Administrative and Financial Reform of the State that began in 1990 (approval of the PSA Plan – POCP) the PSA in Portugal started a new cycle. From the “mother” POCP, several plans were derived for different sectors within the Public Administration – local government (POCAL), health (POCMS), education (POCE), and social security (POCISSSS) entities. Since then, the PSA system based on the POCP has lost its foundational underpinnings, leading to its gradual obsolescence, fragmentation, and inconsistency (Jorge et al., 2021).

The reform of public accounting in Portugal brought out the need to restructure the accounting system that existed at the time, seeking to adapt it to a more dynamic public administration, which it was hoped would be more effective in the face of the objectives established by the intended philosophy of the NPM (Carvalho, Costa, & Macedo, 2008). In this context, the Public Chart of Accounts was approved, suitable for a modern public administration, to increase the quantity and quality of accounting information, allow the comparability and consolidation of public accounts by harmonizing accounting systems, and integrating budgetary, patrimonial, and analytical accounting using the digraph method (Caiado et al., 2017; Jorge, 2003).

However, concerning MA (then called analytical accounting), the standards for its implementation were scarce and scattered. Each subsystem (for education, for local administrations, for the health sector, and the social security sector) had different ways of treating information. Despite mandatory implementation, the development of the analytical accounting system lagged behind due to internal prioritization and challenges in allocating

indirect costs, leading to successive postponements (Carvalho et al., 2008, 2012; Costa & Carvalho, 2007). Several studies conducted in Portugal determined that budgetary and patrimonial accounting systems were used to support management, thus complying with legal requirements, but analytical accounting was not implemented (Santos, 2017). The main reason for the non-implementation that the entities cited was related to the fact that the documents produced by this system were not elements of information required by the Court of Auditors. The second reason, which contributed the most, resided in the difficulties in choosing the bases for the allocation of indirect costs. Finally, the lack of human resources, the lack of time, and the lack of political will were also pointed out as obstacles to the implementation of analytical accounting (Carvalho et al., 2008; Santos, 2017).

With the publication of ASSPA in 2015, the Public Accounting Standard (PAS) 27 for MA defined general requirements for its presentation (Marques, 2018), giving guidelines for its structure and development and prescribing mandatory minimum requirements for its content and disclosure. Objectives were thus defined to establish the basis for the development of a system of MA in public administrations, emphasizing that MA should be used to support the internal processes of public management (internal aspect), contribute to the purposes for accountability (external aspect), and allow for a better evaluation of the economy, efficiency, and effectiveness of public policies. This reform, which was to become effective in 2017, has suffered some delays, and organizations have been adopting it gradually to date.

For Portugal there are still very few studies on the implementation of the public accounting reform that focus on the adaptation of IPSAS (Gomes et al., 2019; Gomes, Brusca, Fernandes, & Vilhena, 2023; Jorge, Caruana, & Caperchione, 2019; Marques, 2018). Some studies indicate that there is a gap between theory and practice, that is, although MA manuals recommend the adoption of complex techniques, in practice, managers resort to simple techniques to support decision-making processes (Major, 2009). One of these examples is the use of the ABC system, which, despite being recommended by the ASSPA, has drawn criticism from several authors. While in theory this technique is revealed to have value in supporting the decision-making process and informing management about resources acquisition and the level of resource utilization (Salmanzadeh, Kordestani, & Kazemi, 2022), in practice, this technique reveals constraints due to the arbitrary distribution of common costs (Armstrong, 2002) and the enormous expenditure of time and consumption of resources, questioning whether the benefits resulting from the introduction of this system outweigh the costs inherent in its implementation (Lima, 2010).

3.3. Hypothesis development

3.3.1. Control

An important element of the implementation of PSA reforms can be seen in the accounting practices with a move from cash to accrual accounting, together with the adoption of MA techniques to measure and control activities (Baird et al., 2007; Clarke & Lapsley, 2004; Cohen et al., 2007; Venieris & Cohen, 2004).

The literature highlights aspects of management control, focusing on achieving effectiveness and efficiency in public spending and resource rationalization (Dimitrić et al., 2016; Labrador & Olmo, 2019; Orelli et al., 2016), driven by the emergence of the ideas of NPM with managerial logics and instruments typical of the private realm that allow efficiency to be improved in the public sector (Mussari, Cepiku, Sorrentino, & Bonollo, 2021). Providing cost-related information, MA supports decision-making in various ways (Caperchione, Cohen, Manes-Rossi, & Brusca, 2019), such as evaluating government projects or products (Oseifuah, 2014).

Additionally, the literature indicates that quality information systems in MA positively impact the effectiveness of management control (Papiorek & Hiebl, 2023), and when management control becomes tighter, decision-makers have limited autonomy to tackle risk matters, especially in turbulent and uncertain times (Bracci, Mouhcine, Rana, & Wickramasinghe, 2022). According to previous literature, our first hypothesis is defined:

H1: The implementation of MA contributes positively to increased control.

3.3.2. Transparency

Transparency refers to the clear and complete presentation of all accounting transactions and events (Al-otoom & Alrabba, 2022; Alsharari & Abougamos, 2017). Imbued with the spirit of NPM organizations encouraging collaboration with stakeholders, including citizens, community groups, and businesses, MA encourages government agencies to publish data and information openly, thus increasing transparency.

Previous studies show that management accounting plays a significant role in ensuring transparency and accountability when managing the public sector (Veledar et al., 2020), accurately reflecting the resources spent on assets and determining the expenses with activities, services, and goods. Accounting and cost control techniques influence planning, control, and decision-making (Alsayegh, 2020; Bertoni et al., 2017). Rahman et al. (2015) suggest that public

sector organizations should use MA in response to the Corruption Perception Index, which measures transparency, accountability and integrity.

The need is recognized need to enhance transparency in Portugal, especially in disclosing financial information in reports, aiming to strengthen the perception of the State's financial transparency and facilitate a more accurate assessment of public sector debt (DL 192/2015, Article 75). Given this legislative goal and according to previous literature, our second hypothesis posits that the implementation of MA contributes to achieving the desired transparency.

H2: The implementation of MA contributes positively to the increase of transparency.

3.3.3. Management report

Accounting information represents the actual state of a company correctly and reasonably. MA practices improve the quality of accounting information as a basis for decision-making in the field of public management (Brusca et al., 2019; Veledar et al., 2020), driven by NPM reforms, emphasizing value for taxpayers' money, transparency, and accountability (Höglund et al., 2021; Lowe & Wilson, 2017; Speklé & Verbeeten, 2014). It is also shaped by organizational adaptation to external pressures and accepted norms influenced by cultural and political traditions (Donatella & Tagesson, 2021).

Hamawandy et al. (2021) show that MA positively impacts the content of financial reports in Iraqi commercial banks. Several studies indicate that MA is a useful tool for accountability in public organizations, promoting the dissemination of financial and non-financial information, allowing to improve the quality of accounting information as a basis for decision-making in the field of public management (Brusca et al., 2019; Hamawandy et al., 2021; Jiang, 2019; Rahman et al., 2015; Veledar et al., 2020).

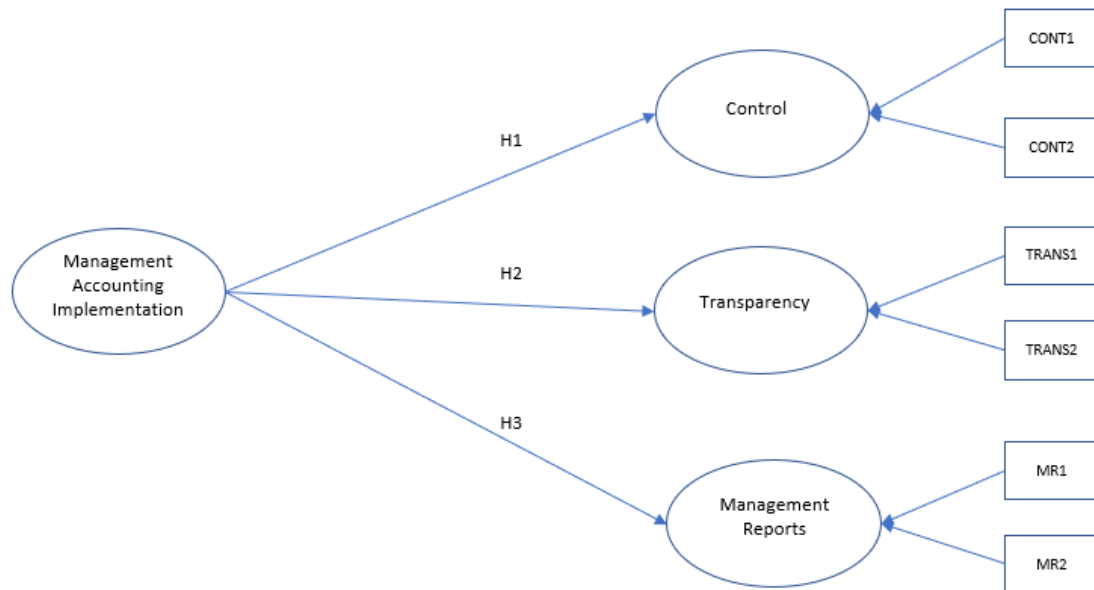
In the Portuguese case, ASSPA defines (in PAS 27) that Information should be produced on the costs, savings, efficiency, and effectiveness of the activities carried out, as well as on the amount and resources needed to support future activities, meeting the needs of external users, thereby promoting accountability for the purposes of budgetary, financial and general-purpose management reporting. According to previous studies, we formulate the third hypothesis:

H3: The implementation of MA contributes positively to the increase in the management report.

3.3.4. Conceptual model

Combining the results from various investigations, our model (Fig. 3.1) aims to show how the level of implementation of the MA reform was measured, as well as its influence on the aspects of control, transparency, and management reports.

Figure 0.1 Conceptual model



Source: authors. The variables in the model are described in the following section.

3.4. Research Design

3.4.1. Sample and data collection

A questionnaire with four sections was sent via email to financial officers overseeing all 495 organizations within the Portuguese Central Administration (Directorate-General for Budget, 2022). Responses to each question were rated on a scale from 1 (low) to 5 (high).

After positive feedback from a pilot test applied to 3 organizations, the survey was circulated 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 out each month until March 2023. There were 170 responses (ca. 34%) that answered the questionnaire in full.

For each question of the survey the respondents were asked to express the extent of their agreement or disagreement on a five-point Likert scale (1, totally disagree; 5, totally agree). Responses were kept confidential.

The first two sections of the questionnaire gathered general information about the respondents' organization and their profiles. All government areas took part, with the Ministry of Science and Higher Education representing the highest share at 24%, followed by the Ministry of Health and the Ministry of Labor, Solidarity, and Social Security, each accounting for 12% of responses. About 26% of government areas are integrated services, possessing only administrative autonomy, while 49% are Autonomous Services and Funds, having both administrative and financial/patrimonial autonomy. The remaining belong to reclassified public entities or private entities mainly funded by the State. Regarding respondent profiles, 57% are female, 68% hold undergraduate degrees, and 23% have master's degrees or higher.

Section 3 collected information on the level of implementation of the ASSPA in each organization. Most respondents belong to government areas that have adopted financial accounting standards (73%) and budget accounting standards (80%), but there are some in which the implementation of MA is still limited (12%), still in planning (45%), or testing (17%) phases.

In the last section financial officers were asked to provide their assessment of the perception of compliance with the objectives of management, analysis, control, and information, provided for in the Decree-Law.

Variables

The survey data produced some latent and measured variables useful for testing our hypotheses.

Latent variables:

A) Management Accounting Implementation (**MANAG_IMPL**) – this variable is measured through the seductive measurable variables, and aims to measure the degree of implementation of MA during the implementation of the accounting reform:

a. PAS_27 – This variable aims to measure the degree of implementation of PAS 27 provided for in the ASSPA, the objective of which is to establish the basis for the development of a system of MA in public administrations.

b. ABC – this variable aims to measure the degree of use of the ABC model, characterized by the allocation of indirect costs to the activities developed to meet the needs of citizens/customers.

c. Periodic Reports – aims to measure the degree of production of periodic management reports, reports to monitor operations, and reports to help make decisions about the future.

d. Environmental Reports – measures the production of environmental management reports, identifying whether there is a policy to reduce effective environmental costs for improved performance.

e. Annual Report – aims to measure the degree of compliance with the preparation of the management report, to be included in the annual financial report. It should disclose information on performance evaluation and evaluation by programs.

B) **Control** – measured by the following measurable variables (CONT 1 and CONT 2) and aims to measure the perception of the increase or decrease in control by financial officers, with the adoption of MA:

a) CONT 1 – The accounting reform provides useful information for decision-making purposes.

b) CONT 2 – The accounting reform allows the control of the economy, efficiency, and effectiveness of public spending.

C) Transparency (**TRANS**) – aims to measure the perception of financial officers of the increase or reduction of transparency in public administration with the adoption of MA, and includes:

a) TRANS1 – The accounting reform allows for adequate reflection of the amount of resources spent on the acquisition of the assets consumed in the provision of services.

b) TRANS2 – The accounting reform allows one to determine the expenses by activities, services, and goods, relative to the reporting period.

D) Management Report (**MR**) – aims to measure the perception of the increase or decrease in the quality of the reports made by the financial officers with the adoption of the MA provided for in the ASSPA.

a) MR1 – The accounting reform provides information for the determination of public service expenditures.

b) MR2 – The accounting reform provides forward-looking information on the sustainability of organizations.

3.5. Results and discussion

3.5.1. Data analysis

The effect of independent variables on the dependent variables was analyzed by applying structural equation modeling (SEM), using the Smart PLS4 (Ringle et al., 2022). With partial least

squares (PLS), measurement quality testing was performed using Cronbach's Alpha. The measurement scale is considered good when the overall CRA factor >0.6 and the corrected item-total correlation >0.3 (Nunnally, 1978; Peterson, 1994). All the measurement scales and observation variables are continued to perform Exploratory Factor Analysis (EFA).

In the EFA analysis, the compatibility testing was performed using the Kaiser-Meyer-Olkin (KMO) measure. According to Hair, Black, Babin, Anderson, and Tatham (2006), when KMO is qualified from 0.5 to 1, the analyzed factors are compatible. At the same time, the correlation testing of the observed variables in each scale was performed using the Bartlett test of Sphericity (Snedecor & Cochran, 1989). When the significance is less than or equal to 0.05, then the variances are equal across groups or samples. Cumulative variance testing was also performed, showing the percentage change in the factors explained by the observation variables.

The Management Implementation variable, intended to gauge the extent of MA implementation in the Central Public Administration as outlined in the ASSPA, was derived from the results of individual task implementation degrees. Answers may vary between 1 – Not Implemented, 2 – Planned, but not yet in force, 3 – In the testing phase, 4 – Implemented, and 5 – In routine, with evaluation and constant improvements. The results are presented in Table 3.3.

Table 0.3 Degree of actions required for the implementation of MA

	Average	Median	Min. Observed	Max. Observed	Standard deviation
PSA 27	2.753	3.000	1.000	5.000	1.363
ABC	1.947	2.000	1.000	5.000	1.186
Periodic Reports	2.424	2.000	1.000	5.000	1.328
Environmental Report	1.776	1.000	1.000	5.000	1.102
Annual Report	3.906	4.000	1.000	5.000	1.083

Table 3.3 shows that the actions necessary for the implementation of MA in central government organizations are still somewhat embryonic. On average, the ABC model and environmental report are in the planning phase, accounting reform rules and related reports are between the planning and testing phases, and the annual report, on average, is nearly fully implemented.

The simple average of these five factors indicates that the implementation of MA is at 2.561 points on a 1 to 5 scale, signifying that the process is in an advanced planning stage and moving toward the testing phase. Note that in 19 European countries, the average use of cost accounting in public administration was 4.43 on a 1 to 7 scale (Mohr et al., 2018), equivalent to

3.585 on a 1 to 5 scale. This suggests that Portugal's implementation of MA is below the European average, although these findings pertain to an early phase of the reform's implementation.

3.5.2. Statistics analysis

To test the conceptual model, the method chosen was SEM, specifically using PLS, a variance-based structural equation modelling technique, implemented with SmartPLS 4 software (Ringle et al., 2022). The analysis and interpretation followed a two-step approach. The first step involved evaluating the reliability and validity of the measurement model, followed by assessing the structural model (Dias et al., 2023). The examination of individual indicators included reliability, convergent validity, internal consistency reliability, and discriminant validity (Dias et al., 2023; Hair et al., 2017). Results indicated that all items' standardized factor loadings were above 0.6 (minimum value of 0.648), and all were significant at $p < 0.001$, providing evidence for the reliability of individual indicators (Hair et al., 2017).

Table 0.4 Composite reliability, extracted mean-variance, correlations, and discriminant validity checks

Latent Variables	α	CR	AVE	1	2	3	4
1. MANAG_IMPL	0.794	0.851	0.534	0.731	0.208	0.227	0.246
2. Control	0.779	0.900	0.819	0.177	0.905	1.030	0.795
3. MR	0.753	0.876	0.781	0.226	0.780	0.884	0.977
4. TRANS	0.847	0.925	0.861	0.244	0.638	0.786	0.928

Note: α Cronbach's alpha; CR - Composite reliability; AVE -Average variance extracted; Bold numbers are the square roots of AVE. Below the diagonal elements are the correlations between the constructs. Above the diagonal elements are the HTMT ratios.

Convergent validity was also confirmed for three key reasons. First, as noted above, all items loaded positively and significantly on their respective constructs. Second, all constructs had CR values higher than 0.70. Third, as Table 3.4 shows, the AVE for all constructs exceeded the threshold of 0.50 (Bagozzi & Yi, 1988).

The discriminant validity was assessed using two approaches. First, the Fornell and Larcker (1981) criterion was applied, which calls for the square root of a construct's AVE to surpass its highest correlation with any other construct. Table 3.4 indicates that this criterion holds for all constructs. Second, the heterotrait-monotrait ratio (HTMT) criterion was utilized (Hair et al., 2017; Henseler et al., 2015). As depicted in Table 3.4, all HTMT ratios fall below the more

conservative threshold of 0.85 (Hair et al., 2017; Henseler et al., 2015), offering additional evidence of discriminant validity.

Table 0.5 Structural model assessment

Path	Path coefficient	Standard errors	t statistics	p values
MANAG_IMPL -> Control	0.177	0.084	2.115	0.034
MANAG_IMPL -> MR	0.226	0.083	2.711	0.007
MANAG_IMPL -> TRANS	0.244	0.070	3.460	0.001

The structural model was assessed using the sign, magnitude, and significance of the structural path coefficients; the magnitude of the R² value for each endogenous variable as a measure of the model's predictive accuracy; and the Stone-Geisser's Q² values as a measure of the model's predictive relevance (Dias et al., 2023; Hair et al., 2017). The collinearity was checked before evaluating the structural model (Hair et al., 2017). The variance inflation factor (VIF) values ranged from 1.165 to 2.245, which was below the indicative critical value of 5 (Hair et al., 2017), indicating no collinearity.

The coefficient of the determination R² for the three endogenous variables of Control, Management Report, and Transparency were 31%, 59%, and 51%, respectively. The Q² values for all endogenous variables (0.006, 0.026, and 0.037) were above zero which indicates the predictive relevance of the model. Bootstrapping with 5,000 subsamples was employed to assess the significance of the parameter estimates (Hair et al., 2017).

In Table 3.5 for the Control variable, one sees that $\beta=0.177$, $p<0.05$, indicating that the implementation of MA has a positive effect on internal control and control of public accounts, supporting H1. This result is in line with previous studies that point to the need to promote cost and MA to control government spending and rationalize the use of resources, increasing the effectiveness of public organizations (Berisha & Asllanaj, 2017; Dmitrović-Šaponja & Suljović, 2017; Labrador & Olmo, 2019; Orelli et al., 2016; Papiorek & Hiebl, 2023). Control is a key aspect of an organization's governance system to support the achievement of an organization's objectives and to create, improve, and protect stakeholder value (Ojra et al., 2021). Our results are in line with and confirm studies that organizations that prioritize management controls create a better environment for citizens and stakeholders (Li, 2020; Xiao, Gong, Yu, Juang, & Yuan, 2020).

The variable Transparency showed a $\beta=0.244$ and $p<0.01$. This result indicates that the implementation of MA has a strong positive effect on increasing transparency, confirming H2. This result is also consistent with previous studies stating that MA achieves transparency,

efficiency, and accountability (Alsharari & Youssef, 2017; Fiondella et al., 2016) through cost accounting techniques (Bertoni et al., 2017) in which the ABC system stands out, which has implications for planning, controlling, and decision making (Alsayegh, 2020). Increased transparency contributes to an organization's ability to adapt and thrive in challenging situations (Balushi, 2021) and employees who understand decision-making processes are more likely to be engaged with stakeholders (Rahaman, 2023).

The H3 was also confirmed since the results show that the implementation of MA has a strong impact on the management report ($\beta=0.226$, $p<0.01$). This conclusion is in line with previous studies showing that the implementation of MA reforms improves the quality of accounting information as a basis for decision-making in public management (Brusca et al., 2019; Hamawandy et al., 2021; Rahman et al., 2015; Veledar et al., 2020) and can provide feedback on the relative success or failure of the company's strategy (Boučková, 2015). This accounting reform, together with the adaptation of IPSAS, allows standard boards and governments to provide information that can be useful for accountability and decision-making proposals for users and stakeholders (Gomes et al., 2023).

3.6. Conclusions

Based on the New Public Theory, this article analyzes the impact of the implementation of MA reforms in the public sector in the Central Public Administration in Portugal and how this implementation affects control, transparency, and reporting within these organizations.

This study concludes that the implementation of the MA reform in the central public administration in Portugal has contributed to the increase of control, transparency, and useful information for management, although the reform is still at an early stage, with a long way to go until its full implementation in all sectors of public administration. In addition, despite the positive contribution of the PSA reform, our study suggests that Portugal's implementation of MA is below the European average, although these findings pertain to an early phase of the reform's implementation (Mohr et al., 2018).

Our study demonstrates that the internal control of organizations in Portugal promoted by MA is useful to rationalize the use of resources, contributing to a better perception by stakeholders, and promoting accountability (Papiorek & Hiebl, 2023). In the same way, the use of MA strongly contributes to increasing the transparency of organizations, promoting a better environment among employees, leading to better collaboration and better customer service. Using MA also affects transparency and clear communication (Fiondella et al., 2016). This study

also demonstrates that the implementation of MA contributes to an increase of management report information. The financial leaders perceive that the objectives set forth by the ASSPA are being accomplished, aligning with observations made in other countries.

This study seeks to enhance the understanding of public institutions regarding the advantages of implementing MA. It specifically focuses on control, efficiency, and effectiveness improvement within organizations, heightened transparency in public expenditure, and an elevation in the quality of management reporting. These considerations encompass attributes such as reliability, timeliness, comparability, and benefit (Labrador & Olmo, 2019; Veledar et al., 2020).

This study highlights how MA benefits organizations by enhancing transparency in public accountability to citizens. Transparency, a crucial tool against corruption, empowers citizens to engage actively in public administration. The aim is to improve citizens' perceptions of Portuguese public accounting reform, fostering increased control, transparency in public management, and higher quality management reporting. This involvement between society and public power ensures that decisions align with overall social needs (Hopper, Tsamenyi, Uddin, & Wickramasinghe, 2009; International Federation of Accountants, 2000).

Conclusion

This thesis provides results concerning the implementation of public sector accounting reform in Portugal, first analyzing which factors influenced the reform, specifically the adoption of IPSAS, and how it contributed to an increase in transparency, and second, assessing the impact of the implementation of management accounting on control, transparency and management reporting.

Intending to access the state of the art in research on the implementation of accounting reform in the public sector and, also, of framing subsequent studies on the Portuguese case, the chapter one is a systematic review of the literature to analyze what constraints and stimuli have been observed in the various public accounting reforms implemented in developed and developing countries.

The key findings reveal disparities in how accounting standards are applied between developed and developing nations, particularly regarding constraints and incentives. In developed countries, a primary constraint stems from inadequate training, whereas in developing nations, it primarily arises from financial resource limitations. Moreover, the results indicate that in developed countries the adoption of accounting standards is largely driven by goals of modernization and enhancing accounting practices, whereas in developing countries it is influenced more by external and internal pressures.

Complementing previous research, this study identifies several 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 several important unexplored questions invite further analysis.

The chapter two focuses on the implementation of the accounting reform in public administration in Portugal, analyzing the determinants that influence the adoption of IPSAS in Portugal, as well as how it has contributed to increasing transparency.

Based on our research we can assert that experienced and independently engaged teams emerge as the primary driving force behind the implementation of PSA reforms in Portugal. Interestingly, the absence of penalties surprisingly had a positive impact on the reforms, while professional organizations exerted a negative influence. Furthermore, our findings confirm that implementing PSA reforms undeniably leads to improved transparency in the public sector, successfully fulfilling one of the primary objectives of IPSAS-led reforms.

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.

In the chapter three we examined whether managers of Portuguese central public organizations perceive that implementing management accounting enhances control, boosts efficiency, increases transparency in public spending, and improves the quality of management reports, which was the objective of our study.

Our results show that the implementation of the management accounting reform has a significant positive effect on the quality of management reports and the transparency of public administrations. The results also show that the implementation of management accounting reform contributes positively to the increase of control in organizations. It can be concluded that financial managers perceive that the intended objectives of the accounting reform are being successfully achieved.

This study will help us understand how managers perceive the effects of implementing management accounting reforms on control, transparency, and management reporting, which are the goals of the current reform.

This dissertation makes a considerable contribution to theoretical academic knowledge and has practical and societal implications. Regarding theory, it adds to the public accounting literature, providing a systematic review of the literature that analyzes all relevant studies on the adoption of IPSAS in the public sector, covering both developed and developing countries. By identifying the constraints and incentives associated with the adoption of IPSAS it offers valuable insights for future research directions, making a strong contribution to academia. At the same time, it contributes to the understanding of the determinants influencing the implementation of public accounting 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 particular emphasis on IPSAS-based reforms. This builds on previous studies (Brusca & Martínez, 2016; Gómez-Villegas et al., 2020; Polzer et al., 2019; Shehadeh, 2022; Wang & Miraj, 2018).

This research further contributes to the literature addressing transparency in the public sector, specifically concerning the implementation of accounting reforms, complementing previous research efforts (Cuadrado-Ballesteros et al., 2023; Lentner et al., 2020; Rogosic & Palos, 2017). It also extends to the literature on the public sector in Portugal, with a special focus on the recent accounting reform of the public sector, complementing the work of previous scholars (Jorge et al., 2021; Mattei et al., 2020; Nogueira & Jorge, 2017; Polzer et al., 2022; Vaz, 2023). In addition, we promote the dissemination of the PLS methodology and the use of fsQCA, recognized as an innovative and valuable research approach in the field of public sector accounting (International Federation of Accountants & The Charter Institute of Public Finance & Accountancy, 2014). Still in the theoretical field, this study seeks to deepen the understanding of

public institutions about the advantages of implementing management accounting, focusing specifically on improving control, efficiency, and effectiveness within organizations, increasing transparency in public spending, and raising the quality of management reports. These considerations encompass attributes such as reliability, timeliness, comparability, and benefit (Labrador & Olmo, 2019; Veledar et al., 2020).

Findings of this dissertation have practical relevance for public organizations currently involved in the implementation of accrual accounting, specifically in the adoption of IPSAS. The insights from the current work can help these organizations navigate the challenges and opportunities that arise during the implementation process (Brusca et al., 2016; Ferreira, 2023; Gomes et al., 2019). In addition, the results are pertinent for countries and their organizations that are considering undertaking the adoption of IPSAS, providing valuable guidance and lessons from the existing body of literature (Azhar, Alfian, Kishan, & Assanah, 2022; Polzer et al., 2019). This dissertation has substantial value for managers of organizations involved in the transition to the practice of accounting, as it identifies the key factors that can help them make informed decisions during this process. We intend for this research to serve as a valuable resource, allowing managers to draw insights from past experiences and identify key determinants that can simplify a process that is often predicted to be complex (Alon & Dwyer, 2014; Fuentes & Borreguero, 2018; Mohammadrezaei et al., 2013). By considering the determinants we have outlined, managers can make more effective choices and navigate the challenges associated with the transition to the accounting practice and the adoption of IPSAS. This, in turn, can help increase transparency in their organizations (Kartiko, Rossieta, Martani, & Wahyuni, 2018; Opanyi, 2016; Sour, 2022).

Additionally, this dissertation also aims to help public institutions understand the advantages of implementing management accounting (Labrador & Olmo, 2019). This includes aspects such as control, increasing organizational efficiency and effectiveness (Labrador & Olmo, 2019; Papiorek & Hiebl, 2023), improving transparency in public spending (Alsharari & Youssef, 2017; Fiondella et al., 2016), and raising the quality of reports considering reliability, timeliness, and comparability (Veledar et al., 2020).

In social terms, our research sheds light on the factors influencing the paradigm shift toward greater transparency in public accountability, benefiting both citizens and taxpayers. This work contributes to the promotion of a more transparent and accountable public sector, which ultimately increases trust and accountability between government and society (Neves & Gómez-Villegas, 2020). Transparency empowers citizens to fight corruption by enabling active participation in public administration (Paterson, Changwony, & Miller, 2019; Tawiah, 2023b). We hope that our research work, as a whole, will increase citizens' understanding of public

sector accounting reform in Portugal by promoting greater control, transparency in public management, and a higher quality of management reports in public administration. This, in turn, facilitates greater engagement between society and government, ensuring that decisions are aligned with broader societal needs (Hopper et al., 2009; International Federation of Accountants, 2000).

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Annex A

The final 90 academic papers published from 2000 to 2022 included in our Literature Review:

Authors	Year	Title	Journal
Ada, Selver Christiaens, Johan	2017	Why do some Municipalities apply accrual-based rules more than others? Evidence from Turkey	<i>Ekonomie a Management</i>
Ada, Selver Christiaens, Johan	2018	The magic shoes of IPSAS: Will they fit Turkey?	<i>Transylvanian Review of Administrative Sciences</i>
Ademola, Abimbola Ben-Caleb, E. Madugba, Joseph Adegboyegun, Adekunle Eluyela, Damilola	2020	International public sector accounting standards (IPSAS) adoption and implementation in Nigerian public sector	<i>International Journal of Financial Research</i>
Adhikari, Pawan Kuruppu, Chamara Matilal, Sumohon	2013	Dissemination and institutionalization of public sector accounting reforms in less developed countries: A comparative study of the Nepalese and Sri Lankan central governments	<i>Accounting Forum</i>
Adhikari, Pawan Kuruppu, Chamara Ouda, Hassan Grossi, Giuseppe Ambalangodage, Dayananda	2019	Unintended consequences in implementing public sector accounting reforms in emerging economies: evidence from Egypt, Nepal and Sri Lanka	<i>International Review of Administrative Sciences</i>
Adhikari, Pawan Mellempvik, Frode	2010	The adoption of IPSASs in South Asia: A comparative study of seven countries	<i>Research in Accounting in Emerging Economies</i>

Authors	Year	Title	Journal
Agasisti, Tommaso Catalano, Giuseppe Erbacci, Angelo	2018	How Resistance to Change Affects the Implementation of Accrual Accounting in Italian Public Universities: A Comparative Case Study	<i>International Journal of Public Administration</i>
Ahmad, Amar Nasseredine, Hassan	2019	Major Challenges and Barriers to IPSASs Implementation in Lebanon	<i>Proceedings of the International Conference on Business Excellence</i>
Al-otoom, Tawffek Alrabba, Hussein	2022	Impact of Lack of Self-efficiency and Assets Evaluation on Resistance of IPSAS Implementation	<i>Information Sciences Letters</i>
Antipova, Tatiana Bourmistrov, Anatoli	2013	Is Russian Public Sector Accounting in the Process of Modernization? An Analysis of Accounting Reforms in Russia.	<i>Financial Accountability and Management</i>
Araya-Leandro, Carlos Caba-Pérez, Carmen López-Hernández, Antonio	2011	Innovation in governmental financial information systems in the Central American region: Evidence from Costa Rica	<i>Innovar</i>
Arnaboldi, Michela Lapsley, Irvine	2009	On the implementation of accrual accounting: A study of conflict and ambiguity	<i>European Accounting Review</i> ,
Azevedo, Ricardo Aquino, André Neves, Fabricio Silva, Cleia	2020	Financial Management Information Systems and accounting policies retention in Brazil	<i>International Journal of Public Sector Management</i>
Brito, Jaqueline Jorge, Susana	2021	The Institutionalization of a New Accrual-based Public Sector Accounting System : The Case of Cape Verde	<i>International Journal of Public Administration</i>
Bruno, Adriana Lapsley, Irvine	2018	The emergence of an accounting practice: The fabrication of a government accrual accounting system	<i>Accounting, Auditing and Accountability Journal</i> ,
Brusca, Isabel Gómez-Villegas, Mauricio Montesinos, Vicente	2016	Public Financial Management Reforms: The Role of IPSAS in Latin-America	<i>Public Administration and Development</i>

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Brusca, Isabel Martínez, Juan	2016	Adopting International Public Sector Accounting Standards: a challenge for modernizing and harmonizing public sector accounting	<i>International Review of Administrative Sciences</i> ,
Brusca, Isabel Montesinos, Vicente	2014	Accrual financial reporting in the Public Sector: Is it a reality?	<i>Innovar</i>
Caruana, Josette	2017	Reform for reform's sake: A never-ending story of governmental accounting change.	<i>Business and Economic Horizons</i>
Carvalho, João Baptista da Costa Camões, Pedro Jorge, Susana Fernandes, Maria José	2007	Conformity and diversity of accounting and financial reporting practices in Portuguese local government.	<i>Canadian Journal of Administrative Sciences</i>
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Christiaens, Johan van Peteghem, Vincent	2007	Governmental Accounting Reform: Evolution of the Implementation in Flemish Municipalities	<i>Financial Accountability and Management</i>
Ciurea, Maria	2018	Considerations on the need to implement International Accounting Standards for the Public Sector in Romania	<i>Annals of the University of Petroșani, Economics</i>
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Connolly, Ciaran Hyndman, Noel	2006	The actual implementation of accruals accounting: Caveats from a case within the UK public sector	<i>Accounting, Auditing and Accountability Journal</i>

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Elmezughi, Abdalla Wakil, Amal	2018	Feasibility of transformation to accrual basis of accounting in the public sector: Kingdom of Bahrain context.	<i>Academy of Accounting and Financial Studies Journal</i>
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Frank, Howard A Gianakis, Gerasimos A.	2010	What hath the GASB wrought? The utility of the new reporting model: A National Survey of Local Government Finance Officers.	<i>Journal of Public Budgeting, Accounting and Financial Management</i>
Fuentes, Silvia Borreguero, Julián	2018	Institutional capacity in the accounting reform process in Spanish local governments	<i>Spanish Accounting Review</i>
Gigli, Sabrina Mariani, Laura Trivellato, Benedetta	2018	Assimilating accounting innovations: lessons from Italian public universities	<i>Journal of Accounting and Organizational Change</i>
Gómez-Villegas, Mauricio Brusca, Isabel Bergmann, Andreas.	2020	IPSAS in Latin America: innovation, isomorphism or rhetoric?	<i>Public Money and Management</i>
Haldma, Toomas Kenk, Karina	2014	Development of Estonian local government accounting: the stages of evolution during the years 1991–2013	<i>Zeszyty Teoretyczne Rachunkowości</i>
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Authors	Year	Title	Journal
Harun, Harun Eggleton, Ian Locke, Stuart	2021	An integrated model of IPSAS institutionalisation in Indonesia: a critical study	<i>International Journal of Public Sector Management</i>
Harun, Harun Kamase, Haryono	2012	Accounting Change and Institutional Capacity: The Case of a Provincial Government in Indonesia	<i>Australasian Accounting, Business and Finance Journal</i>
Hidayah, Nurul Zarkasyi, Wahyudin	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	<i>European Research Studies Journal</i>
Hladika, Mirjana	2022	Analysis of Public Managers' Attitudes Toward Constraints for Implementation of Public Sector Accounting Reform in Croatia.	<i>Ekonomski Pregled,</i>
Hrůza, Filip Valouch, Petr	2016	Public Sector Accounting Policy Reform in the Czech Republic: Experience from Local Governments (pilot)	<i>European Financial and Accounting Journal</i>
Hyndman, Noel	2016	Accrual accounting, politicians and the UK—with the benefit of hindsight.	<i>Public Money and Management,</i>
Hyndman, Noel Connolly, Ciaran	2011	Accruals accounting in the public sector: A road not always taken.	<i>Management Accounting Research</i>
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Ismail, Suhaiza Siraj, Siti Baharim, Shahril	2018	Implementation of accrual accounting by Malaysian federal government: Are the accountants ready?	<i>Journal of Accounting and Organizational Change</i>
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Jones, Rowan Caruana, Josette	2014	Central government accounting reform in Malta: Is it just an illusion?	<i>Bank of Valletta Review</i>
Jorge, Susana Brusca, Isabel Nogueira, Sónia	2019	Translating IPSAS into National Standards: An Illustrative Comparison between Spain and Portugal	<i>Journal of Comparative Policy Analysis: Research and Practice</i>
Jorge, Susana Carvalho, João Fernandes, Maria José	2007	Governmental accounting in Portugal: why accrual basis is a problem	<i>Journal of Public Budgeting, Accounting and Financial Management</i>
Klimavičienė, Irena Mykolaitienė, Violeta	2007	Changes in the Accounting System of the Public Sector in Lithuania	<i>Ekonomika Ir Vadyba</i>
Kowalczyk, Magdalena Caruana, Josette	2022	Governmental accounting and budgeting in Malta and Poland – a different dance to the same tune.	<i>International Journal of Public Sector Management,</i>
Krishnan, Sarada	2021	Decision-making processes of public sector accounting reforms in India—Institutional perspectives.	<i>Financial Accountability and Management</i>
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Lentner, Csaba Molnár, Petronella Nagy, Vitéz	2020	Accrual accounting and public finance reforms in Hungary: The study of application in the public sector	<i>Economic Annals-XXI</i>

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Mbelwa, Latifa; Adhikari, Pawan Shahadat, Khandakar	2018	An examination of the institutional and decision-usefulness factors in the implementation of accrual accounting reforms in the public sector of Tanzania	<i>Journal of Accounting in Emerging Economies</i>
McLeod, Ross H. Harun, Harun	2014	Public Sector Accounting Reform at Local Government Level in Indonesia	<i>Financial Accountability and Management</i>
Mohammadrezaei, Fakhroddin Banimahd, Bahman Saleh, Norman	2013	Convergence obstacles with IASB standards: Evidence from Iran	<i>International Journal of Disclosure and Governance</i>
Mulyani, Sri Puspitasari, Evita Yunita, Devianti	2018	Analysis of the Critical Factors in Supporting the Implementation of the Accrual-based Accounting in the Local Government	<i>Review of Integrative Business and Economics Research</i>
Nagirikandalage, Padmi Binsardi, Ben	2015	Exploring public sector accounting reforms in an emerging economy: A case of Sri Lanka	<i>Research in Accounting in Emerging Economies</i>
Nakmahachalasint, Oraphan Narktabtee, Kanogporn	2019	Implementation of accrual accounting in Thailand's central government	<i>Public Money and Management</i>
Nasi, Greta Steccolini, Ileana	2008	Implementation of accounting reforms. An empirical investigation into Italian local governments.	<i>Public Management Review</i>
Neves, Fabrício Gómez-Villegas, Mauricio	2020	Public sector accounting reform in Latin America and Epistemic Communities: an institutional approach	<i>Journal of Public Administration</i>
Otrusínová, Milana	2016	Public sector accounting in the Czech republic and Slovakia	<i>Administratie Si Management Public</i>
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Reginato, Elisabetta Fadda, Isabella Pavan, Aldo	2010	Italian municipalities' NPFM reforms: an institutional theory perspective.	<i>Pecunia: Revista de La Facultad de Ciencias Económicas y Empresariales, Universidad de León,</i>
Ridder, Hans Bruns, Hans Spier, Fabian	2005	Analysis of public management change processes: The case of local government accounting reforms in Germany	<i>Public Administration,</i>
Santis, Serena Grossi, Giuseppe Bisogno, Marco	2019	Drivers for the voluntary adoption of consolidated financial statements in local governments	<i>Public Money and Management</i>
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Scott, Deon Wingard, Christa van Biljon, Marilene	2016	Challenges with the financial reporting of biological assets by public entities in South Africa	<i>South African Journal of Economic and Management Sciences</i>
Shehadeh, Esam	2022	A Movement Towards the Accrual Based IPSAS Implementation in Developing Countries: Evidence from Jordan	<i>The Journal of Asian Finance, Economics and Business</i>

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Simpson, Samuel Tetteh, Lexis Agyenim-Boateng, Cletus	2020	Exploring the socio-cultural factors in the implementation of public financial management information system in Ghana	<i>Journal of Accounting and Organizational Change</i>
Sulu-Gambari, Waziri Stafford, Anne Stapleton, Pamela	2018	Public accountability reform in a Nigerian ministry	<i>Qualitative Research in Accounting and Management</i>
Tetteh, Lexis Alexander Agyenim-Boateng, Cletus Simpson, Samuel Nana Yaw Susuawu, Daniel	2021	Public sector financial management reforms in Ghana: insights from institutional theory	<i>Journal of Accounting in Emerging Economies</i>
Thanh, Phuong Thanh, Hai Thanh, Tung Thuy, Tien	2020	Factors affecting accrual accounting reform and transparency of performance in the public sector in Vietnam	<i>Problems and Perspectives in Management</i>
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van Helden, Jan Reichard, Christoph	2018	Cash or accruals for budgeting? Why some governments in Europe changed their budgeting mode and others not	<i>OECD Journal on Budgeting</i>
Venieris, George Cohen, Sandra	2004	Accounting Reform in Greek Universities: A Slow Moving Process	<i>Financial Accountability and Management</i>

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Yahya, Idhar Hasibuan, Raya Puspita Sari Torong, Zainul Bahri Muda, Iskandar	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	<i>Journal of Management Information and Decision Science</i>
Yuliati, Retno Yuliansyah, Yuliansyah Adelina, Yang	2019	The implementation of accrual basis accounting by Indonesia's local governments	<i>International Review of Public Administration</i>

Annex B

Questionnaire sent to all organizations of the Portuguese central public administration.

This questionnaire was previously submitted to the Ethics Committee of ISCTE-IUL, and a favorable opinion was issued on September 5, 2022.

Implementação do SNC-AP em Portugal

QUESTIONÁRIO

Caro(a) profissional,

O atual trabalho de investigação, intitulado “Implementação do SNC-AP em Portugal”, insere-se num estudo que decorre no âmbito do Doutoramento em Gestão com especialidade em Contabilidade, realizado no ISCTE-IUL que pretende apurar o grau de implementação do Sistema de Normalização Contabilística para Administrações Públicas (SNC-AP) na Administração Central.

Pretendemos contribuir para um melhor conhecimento sobre este tema, sendo necessário, para tal, incluir neste estudo a participação de todas as entidades da Administração. É por isso que a sua colaboração é fundamental.

Os resultados obtidos serão utilizados apenas para fins académicos, sendo que as respostas dos inquiridos representam apenas a sua opinião individual. Solicita-se que este questionário seja respondido pelo responsável da área financeira ou equiparado. O questionário é anónimo, não devendo por isso colocar a sua identificação nem assinar o mesmo. Não existem respostas certas ou erradas, por isso solicitamos que responda de forma espontânea e sincera a todas as questões.

O resultado da investigação será apresentado no ISCTE-IUL podendo, se desejar, contactar a sua autora Margarida Liberato para se inteirar dos resultados obtidos, através do e-mail a16162@iscte-iul.pt.

Obrigada pela sua imprescindível colaboração.

Consentimento

Este estudo não lhe trará nenhuma despesa ou risco. Qualquer informação será confidencial e não será revelada a terceiros, nem publicada.

A sua participação neste estudo é voluntária e pode retirar-se a qualquer altura, ou recusar participar, sem que tal facto tenha consequências para si.

Tendo tomado conhecimento sobre a informação acerca do estudo, declaro que tenho mais de 18 anos e que aceito participar nesta investigação.

- ☐ Sim
- ☐ Não

Seção I - Caraterização da Entidade

Áreas do XXIII Governo

Ministério

- ☐ Presidência
- ☐ Negócios Estrangeiros
- ☐ Defesa Nacional
- ☐ Administração Interna
- ☐ Justiça
- ☐ Finanças
- ☐ Economia e Mar
- ☐ Cultura
- ☐ Ciência, Tecnologia e Ensino Superior
- ☐ Educação
- ☐ Trabalho, Solidariedade e Segurança Social
- ☐ Saúde
- ☐ Ambiente e Ação Climática
- ☐ Infraestruturas e Habitação
- ☐ Coesão Territorial
- ☐ Agricultura e Alimentação
- ☐ Outro

Classificação da Entidade (Anexo I da Circular 1404 da Direção Geral do Orçamento)

- ☐ Serviço Integrado
- ☐ Serviço e Fundo Autónomo
- ☐ Entidade Pública Reclassificada - Regime Geral
- ☐ Entidade Pública Reclassificada - Regime Simplificado
- ☐ Outro

Ano de implementação efetiva do Normativo SNC-AP: _____

Regime aplicado:

- ☐ Regime Geral
- ☐ Regime Simplificado - Pequenas Entidades
- ☐ Regime Simplificado – Microentidades

Nº total de trabalhadores (independentemente do vínculo)

- ☐ Menos de 10 pessoas
- ☐ De 11 a 50 pessoas
- ☐ De 51 a 250 pessoas
- ☐ Mais de 250 pessoas

Valor Total do Balanço de 2021

- ☐ Inferior a 2.000.000 €
- ☐ De 2.000.000 € a 10.000.000 €
- ☐ De 10.000.000 € a 43.000.000 €
- ☐ Mais de 43.000.000 €

Seção II – Caraterização do respondente

Faixa etária

- ☐ menos de 30 anos
- ☐ De 30 a 49 anos
- ☐ De 40 a 59 anos
- ☐ De 50 a 69 anos
- ☐ mais de 60 anos

Género

Assinale o género com que se identifica

- ☐ Feminino
- ☐ Masculino
- ☐ Outro

Habilitações Literárias

- ☐ Ensino secundário
- ☐ Licenciatura
- ☐ Mestrado
- ☐ Doutoramento
- ☐ Outra:

Seção III – Implementação do SNC-AP

Identifique o grau de implementação de cada um dos subsistemas de contabilidade na sua organização:

Sub-sistema	Não Implementado	Planeado, mas ainda não em vigor	Em fase de testes	Implementado	Em rotina, com avaliação e melhorias constantes
Normas 1 a 25 do SNC-AP aplicáveis à entidade					
Classificador Complementar 2- Cadastro e vidas úteis dos ativos fixos tangíveis, intangíveis e propriedades de investimento					
Demonstrações Financeiras					
Anexo às Demonstrações Financeiras					
Reporte Periódico no Portal S3CP					
Norma 26 do SNC-AP					
Demonstrações Orçamentais					
Anexo às Demonstrações Orçamentais					
Reporte Periódico no Portal S3CP					
Norma 27 do SNC-AP					
Sistema ABC- Activity Based Costing					
Mapas de divulgação da Contabilidade de Gestão					
Divulgação de rendimentos e gastos ambientais					
Relatório de Gestão					

Seção IV - Constrangimentos e estímulos verificados na implementação

Utilizando a escala de 1 a 5 em que: 1) discordo totalmente, 2) discordo, 3) indiferente (ou neutro), 4) concordo e 5) concordo totalmente, classifique as seguintes afirmações:

Questões	Grau de Percepção				
	1	2	3	4	5
Existiam na sua organização recursos humanos suficientes para a implementação das normas					
Houve recrutamento de pessoas para a implementação das normas					
Os conhecimentos da equipa eram suficientes e adequados para implementação das normas					
Houve resistência à mudança para o novo normativo por parte dos envolvidos					
A formação em contabilidade financeira foi suficiente para a implementação destas normas					
O sistema informático estava preparado para a implementação das normas, não dificultando o processo de implementação					
Foi necessário fazer adaptações ao sistema informático, e daí resultaram dificuldades na implementação das normas					
Foi necessário adquirir um sistema totalmente novo para a implementação das normas, o que dificultou a implementação das normas					
O sistema informático está a limitar a implementação de alguma norma					
Na fase de arranque efetivo a organização manteve os registos contabilísticos no referencial anterior em simultâneo (sistemas em paralelo)					
Foi abandonado o referencial anterior (POC-P ou outros) e transitado diretamente para SNC-AP sem sobreposições					
A sua organização tem uma única base de dados que comporta todas as questões relacionadas com a contabilidade financeira, orçamental e de gestão					
A equipa de implementação dispõe de equipamentos e infraestruturas adequados à implementação do novo normativo					
A implementação das normas foi condicionada por restrições financeiras					
A implementação das normas obrigou a um esforço financeiro significativo					
A sua organização contribuiu empenhadamente para a implementação das novas normas					
A gestão da sua organização utiliza os outputs do novo referencial para definir objetivos e indicadores para o ano(s) seguintes (s)					

Questões	Grau de Perceção				
	1	2	3	4	5
A gestão de topo tem qualificações/competências adequadas à implementação do novo normativo					
Houve dificuldade em interpretar as normas, condicionando a sua implementação					
A implementação foi acompanhada por um processo de esclarecimento dos objetivos da reforma, ao nível geral na organização					
Existiram manuais, instruções e similares que auxiliaram a implementação do novo normativo					
As normas encontram-se ajustadas à realidade da sua organização					
A tradução das normas internacionais para a língua portuguesa afeta a interpretação das mesmas					
A falta de visibilidade de benefícios condicionou a implementação					
Uma maior visibilidade dos benefícios, teria facilitado a implementação das normas					
Existiram sistemas de incentivos para a implementação das normas					
Penalização à entidade pela não implementação das normas teriam assegurado uma implementação mais célere					
Houve pressões políticas para a implementação das normas na sua organização					
A implementação das normas foi beneficiada pela ação das organizações profissionais					
Houve empenho na gestão de topo na implementação das normas					
A equipa de implementação teve uma intervenção voluntária e proactiva no processo					
A literacia contabilística da equipa de implementação foi um facilitador na implementação das normas					
A experiência profissional dos membros da equipa de implementação beneficiou a implementação das normas					
Houve necessidade de recorrer a consultores externos para implementar as novas normas					
O envolvimento de consultores externos foi determinante para a implementação das normas					
A implementação das normas ocorreu no âmbito de um processo geral de modernização dos serviços					

Seção V – Finalidades do SNC-AP

O Decreto-Lei 192/2015, de 11 de setembro, define um conjunto de finalidades para o cumprimento de objetivos de gestão, de análise, de controlo, e de informação. Utilizando a escala de 1 a 5 em que: 1) discordo totalmente, 2) discordo, 3) indiferente (ou neutro), 4) concordo e 5) concordo totalmente, classifique as seguintes afirmações:

Questões	Grau de Perceção				
	1	2	3	4	5
O SNC-AP evidencia uma melhor execução orçamental					
O SNC-AP evidencia um melhor desempenho face aos objetivos da política orçamental					
O novo relato orçamental permite verificar o cumprimento da lei em termos de finanças públicas					
O SNC-AP permite obter uma imagem verdadeira e apropriada da posição financeira e das respetivas alterações					
O SNC-AP permite obter uma imagem verdadeira e apropriada do desempenho financeiro					
O SNC-AP permite obter uma imagem verdadeira e apropriada dos fluxos de caixa					
O SNC-AP proporciona informação para a determinação dos gastos dos serviços públicos					
O SNC-AP permite refletir adequadamente a quantia de recursos despendidos na aquisição dos ativos consumidos na prestação dos serviços					
O SNC-AP permite determinar os gastos por atividades, serviços e bens, respeitantes ao período de relato					
O SNC-AP proporciona informação para a elaboração de todo o tipo de contas, demonstrações e documentos a ser enviados à Assembleia da República					
O SNC-AP proporciona informação para a elaboração de todo o tipo de contas, demonstrações e documentos a ser enviados ao Tribunal de Contas					
O SNC-AP proporciona informação para a elaboração de todo o tipo de contas, demonstrações e documentos a ser enviados às demais entidades de controlo e supervisão					
O SNC-AP proporciona informação para a preparação de contas de acordo com o Sistema Europeu de Contas Nacionais e Regionais					
O SNC-AP permite obter informação para a elaboração de estatísticas macroeconómicas					
O SNC-AP permite obter informação para a tomada de decisões ao âmbito das políticas					

Questões	Grau de Perceção				
	1	2	3	4	5
orçamentais e monetárias ao nível da União Europeia					
O SNC-AP permite o controlo financeiro					
O SNC-AP permite o controlo da legalidade da execução da receita e despesa pública					
O SNC-AP permite o controlo da economia, eficiência e eficácia dos gastos públicos					
O SNC-AP proporciona informação útil para efeitos de tomada de decisão					
O SNC-AP proporciona uma informação prospetiva sobre a sustentabilidade das entidades Públicas					
O SNC-AP permite avaliar a capacidade da entidade em cumprir os compromissos financeiros futuros					

Identifique, na sua opinião, qual/quais a(s) os principais pontos positivos neste processo de reforma contabilística

--

Identifique qual/quais a(s) os principais pontos negativos, na sua opinião, neste processo de reforma contabilística

--

Comentários

Caso deseje deixar algum comentário que considere útil para o estudo

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Annex C

Results of the questionnaire applied

Question	Not Implemented		Planned, but not yet in place		In the testing phase		Implemented		Routinely, with constant evaluation and improvement	
Q10_1	1,67%	7	2,49%	7	3,01%	4	9,15%	118	10,13%	53
Q10_2	4,29%	18	3,20%	9	5,26%	7	8,38%	108	8,99%	47
Q10_3	1,90%	8	2,14%	6	2,26%	3	9,39%	121	9,75%	51
Q10_4	2,14%	9	2,14%	6	3,76%	5	9,08%	117	9,94%	52
Q10_5	3,57%	15	4,63%	13	9,77%	13	8,22%	106	8,03%	42
Q10_6	1,67%	7	3,20%	9	2,26%	3	9,31%	120	9,56%	50
Q10_7	1,43%	6	2,14%	6	1,50%	2	9,78%	126	9,37%	49
Q10_8	1,67%	7	2,49%	7	3,01%	4	9,46%	122	9,37%	49
Q10_9	3,33%	14	5,34%	15	11,28%	15	8,15%	105	7,65%	40
Q10_10	11,67%	49	14,95%	42	20,30%	27	3,96%	51	3,82%	20
Q10_11	21,67%	91	19,93%	56	10,53%	14	1,40%	18	1,91%	10
Q10_12	15,00%	63	18,51%	52	15,79%	21	3,10%	40	2,49%	13
Q10_13	25,71%	108	16,01%	45	7,52%	10	1,78%	23	0,57%	3
Q10_14	4,29%	18	2,85%	8	3,76%	5	8,84%	114	8,41%	44

Question	1		2		3		4		5	
Q11_1	1,53%	14	4,63%	55	3,21%	55	1,81%	30	2,46%	16
Q11_2	7,89%	72	4,88%	58	1,17%	20	1,03%	17	0,46%	3
Q11_3	1,42%	13	4,12%	49	2,86%	49	3,14%	52	1,08%	7
Q11_4	3,29%	30	3,11%	37	3,21%	55	2,60%	43	0,77%	5

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Question	1		2		3		4		5	
Q11_5	1,53%	14	3,95%	47	3,09%	53	2,90%	48	1,23%	8
Q11_6	2,63%	24	3,62%	43	2,51%	43	3,08%	51	1,38%	9
Q11_7	1,53%	14	1,51%	18	1,98%	34	4,05%	67	5,68%	37
Q11_8	6,57%	60	2,86%	34	2,10%	36	1,15%	19	3,23%	21
Q11_9	4,49%	41	3,36%	40	2,69%	46	2,12%	35	1,23%	8
Q11_10	5,26%	48	2,02%	24	1,98%	34	2,42%	40	3,69%	24
Q11_11	2,85%	26	1,85%	22	1,69%	29	2,30%	38	8,45%	55
Q11_12	0,99%	9	1,35%	16	0,88%	15	4,05%	67	9,68%	63
Q11_13	0,55%	5	1,85%	22	2,80%	48	3,75%	62	5,07%	33
Q11_14	5,91%	54	4,21%	50	2,39%	41	1,15%	19	0,92%	6
Q11_15	3,83%	35	3,36%	40	2,92%	50	1,75%	29	2,46%	16
Q11_16	0,44%	4	1,18%	14	1,81%	31	4,59%	76	6,91%	45
Q11_17	2,41%	22	1,60%	19	3,79%	65	3,02%	50	2,15%	14
Q11_18	2,19%	20	2,44%	29	3,21%	55	3,33%	55	1,69%	11
Q11_19	0,66%	6	3,03%	36	3,91%	67	3,45%	57	0,61%	4
Q11_20	1,86%	17	3,53%	42	3,97%	68	2,18%	36	1,08%	7
Q11_21	0,99%	9	2,10%	25	3,27%	56	4,23%	70	1,54%	10
Q11_22	0,55%	5	1,85%	22	3,62%	62	4,23%	70	1,69%	11
Q11_23	1,97%	18	2,86%	34	5,02%	86	1,75%	29	0,46%	3
Q11_24	2,19%	20	3,87%	46	4,26%	73	1,69%	28	0,46%	3
Q11_25	1,42%	13	2,52%	30	4,20%	72	2,36%	39	2,46%	16
Q11_26	7,12%	65	4,96%	59	2,04%	35	0,42%	7	0,61%	4
Q11_27	6,13%	56	4,46%	53	2,28%	39	0,97%	16	0,92%	6
Q11_28	5,91%	54	4,21%	50	2,45%	42	1,21%	20	0,61%	4
Q11_29	3,50%	32	3,45%	41	3,85%	66	1,51%	25	0,92%	6
Q11_30	0,66%	6	1,93%	23	2,22%	38	4,47%	74	4,45%	29
Q11_31	0,33%	3	0,84%	10	1,63%	28	5,38%	89	6,14%	40
Q11_32	0,33%	3	1,01%	12	2,10%	36	5,38%	89	4,61%	30

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Question	1		2		3		4		5	
Q11_33	0,00%	0	1,09%	13	1,87%	32	5,20%	86	5,99%	39
Q11_34	3,50%	32	2,44%	29	2,34%	40	2,96%	49	3,07%	20
Q11_35	3,83%	35	1,77%	21	2,86%	49	2,30%	38	4,15%	27
Q11_36	3,72%	34	2,19%	26	3,79%	65	2,06%	34	1,69%	11

Question	1		2		3		4		5	
Q12_1	11,90%	5	3,73%	6	4,78%	40	4,35%	83	5,77%	36
Q12_2	11,90%	5	3,73%	6	5,38%	45	4,88%	93	3,37%	21
Q12_3	4,76%	2	3,73%	6	5,38%	45	5,04%	96	3,37%	21
Q12_4	2,38%	1	1,24%	2	2,87%	24	5,72%	109	5,45%	34
Q12_5	4,76%	2	0,62%	1	2,99%	25	5,51%	105	5,93%	37
Q12_6	2,38%	1	1,86%	3	2,99%	25	5,40%	103	6,09%	38
Q12_7	2,38%	1	2,48%	4	3,94%	33	5,25%	100	5,13%	32
Q12_8	2,38%	1	4,35%	7	5,26%	44	4,62%	88	4,81%	30
Q12_9	4,76%	2	5,59%	9	4,66%	39	4,62%	88	5,13%	32
Q12_10	2,38%	1	7,45%	12	4,78%	40	4,93%	94	3,69%	23
Q12_11	7,14%	3	4,97%	8	2,75%	23	4,88%	93	6,89%	43
Q12_12	2,38%	1	4,97%	8	3,70%	31	5,04%	96	5,45%	34
Q12_13	2,38%	1	5,59%	9	7,89%	66	3,88%	74	3,21%	20
Q12_14	7,14%	3	5,59%	9	8,24%	69	3,41%	65	3,85%	24
Q12_15	4,76%	2	5,59%	9	7,77%	65	3,99%	76	2,88%	18
Q12_16	4,76%	2	3,11%	5	3,23%	27	5,14%	98	6,09%	38
Q12_17	7,14%	3	7,45%	12	4,06%	34	4,77%	91	4,81%	30
Q12_18	4,76%	2	11,18%	18	5,38%	45	4,20%	80	4,01%	25
Q12_19	4,76%	2	4,35%	7	3,82%	32	4,98%	95	5,45%	34
Q12_20	2,38%	1	6,83%	11	6,09%	51	4,35%	83	3,85%	24
Q12_21	2,38%	1	5,59%	9	4,06%	34	5,04%	96	4,81%	30

