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Accounting Reform and IPSAS Adoption in Greece

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Abstract:

Purpose: *The study aims to investigate the level of acceptance and preparation of the Local Administration Organizations regarding the adoption of International Public Sector Accounting Standards (IPSAS) in Greece.*
Design/Methodology/Approach: *In order to accomplish this purpose a survey was realized by addressing a questionnaire to officers and employees of the finance department of 325 municipalities in Greece and to the elected representatives who are responsible for their financial management and reporting.*
Findings: *The results from 58 municipalities that participated in the research show that even though the officers and employees of the finance department of municipalities are not familiar with IPSAS, there is a wide acceptance of the need to implement them. It was also concluded that municipalities in Greece are not prepared for the accounting change and the adoption of IPSAS. Overall, Greece appears to be at a premature stage with delays observed in the implementation of existing enacted reforms.*
Practical Implications: *The study provides useful insights on IPSAS implementation process for all the parties engaged in public administration reform such as regulators, standard setters, institutional organizations as well as to countries that are in process or planning to adopt IPSAS.*
Originality/value: *To the knowledge of the authors this is the first study that has examined in depth the perceptions and attitudes of Local Administration Organizations in Greece regarding IPSAS adoption.*

Keywords: *Accounting, public sector, IPSAS, adoption, local administration, Greece.*

JEL classification: *M40, M41, M49.*

Paper Type: *Research study.*

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1. Introduction

The high fiscal deficits and debt explosions globally have led governments in recent years to reform their accounting systems. Ensuring high-quality financial statements was considered necessary, along with the need for accountability in the public sector and transparency in financial transactions. At the international level, the adoption of International Public Sector Accounting Standards (IPSAS) is an important reform factor in the fiscal policy of many countries to ensure transparency, quality improvement and comparability of the financial information of the various countries.

In Greece, especially today in conditions of economic recovery, the modernization of the public sector's financial management system is considered necessary for the efficiency of public administration. It is noted that during Greek sovereign debt crisis, from the first memorandum with the lenders, one of the primary issues raised by the International Monetary Fund (IMF) and the European Union (EU) was the upgrading of public accounting.

The adoption of IPSAS offers the potential to effectively manage public finances, with multiple benefits. These benefits include tighter fiscal control, transparency in the financial statements, accountability in governance, measurement and monitoring of performance and avoidance of decisions with a negative impact on efficiency or intergenerational equity (Ball, 2015). In contrast, the absence of accounting standards of public accounting has a significant cost to public authorities, implying a lack of reliable data, poor decision-making and misuse of public resources, which in turn affects the economy (Mardas, 2015).

This paper aims to examine the adoption of IPSAS in Greece. For this purpose, a questionnaire was developed in order to examine the perceptions of executives and employees working in Greece's local administration entities. Results show that Greece is at an early stage of IPSAS adoption compared to other countries. The participants of the survey have a positive attitude towards IPSAS implementation, although the municipalities in which they are employed do not appear to be adequately prepared for this change. The main cause for this is attributed to the lack of experienced staff to implement IPSAS and handle the transition process. Results may be of interest for policy makers and public administration executives in their effort to implement IPSAS adoption in Greece and other countries.

The remainder of the paper is organised as follows. Part two describes the theoretical framework of IPSAS and the state of their adoption worldwide. In addition, a reference to public sector accounting and adoption of IPSAS in Greece, as well as a review of prior research is made. Part three presents research methodology and data, and part four shows the results of the research. The paper ends with a summary of main conclusions and suggestions for future research.

2. Theoretical Approach

2.1 International Public Sector Accounting Standards

International Public Sector Accounting Standards (IPSAS) are an accounting framework for the preparation and presentation of financial statements for the public sector. They have been developed by the International Public Sector Accounting Standards Board (IPSASB), which is a body of the International Federation of Accountants (IFAC). They were created on the understanding that public sector management, in accordance with the principles of economics, depends on management information systems. They are the only acceptable Public Sector Accounting Standards and are for the most part based on International Financial Reporting Standards, which have been adapted to meet the needs of the Public Sector. They aim to improve the quality of financial reporting of public sector entities which in turn contribute to effectiveness, efficiency, transparency and accountability in the public sector.

The IPSASB has so far issued forty-two standards based on the accrual basis and a standard dealing with financial reporting on a cash basis. The Board is strongly promoting and encouraging their adoption. An increasing number of organizations and countries, mainly developing countries, are adopting IPSAS and this growing success is proudly reported. The biennial review 2017-2018 summarizes the successes of its goal to close the perceived gaps in IPSAS while maintaining alignment with International Financial Reporting Standards (IFRS). The Board's strategic plan for the five-year period 2019-2023 seeks to strengthen Public Financial Management globally through the increasing adoption of IPSAS. This will be achieved through two main areas of activity, which focus on the public interest: a) developing and maintaining the use of IPSAS as well as other high-level guidelines for public sector financial information and b) raising awareness regarding IPSAS and the benefits of their adoption.

2.2 The Adoption of IPSAS Worldwide

At the global level, many countries and international organizations have already adopted or are adopting IPSAS, such as the European Union and the Council of Europe, the North Atlantic Treaty Organization (NATO), the Organization for Economic Co-Operation and Development (OECD), the World Bank, and the United Nations (UN).

Given that IPSAS are the international adaptation of the Anglo-American Model of Public Sector Accounting, it is considered de facto that IPSAS are adopted by the United States (US), Australia, Canada, New Zealand and the United Kingdom (UK). These countries, despite the variations, apply accrual accounting in accordance with the standards (Toudas *et al.*, 2013). In developing countries, the adoption of IPSAS is linked to the countries' attempt to apply accounting independence of use. A study by Adhikari and Mellemvick (2010) found that the majority of South Asian countries adopt standards in order to achieve accounting independence. As the researchers support, these countries aim at adapting rather than fully adopting the standards. The following table gives some indicative information on the stage of adoption of IPSAS in several developing countries in Asia, Africa, and South and Central America.

Table 1. *Adoption status of IPSAS.*

Country	*Current accounting method*	*Adoption status*
Asia		
Abu Dhabi	Currently uses cash basis IPSAS	There is a commitment to full implementation without specifying the implementation time
Bangladesh	Applies a cash basis of accounting based on IPSAS	Implementation is still in progress without specifying the implementation time
India	Uses a cash basis of accounting	Partially adopted in 2018
Indonesia	Has adopted IPSAS since 2015	Implementation is still in progress
Jordan	Has adopted IPSAS since 2015	Has not adopted all standards
Malaysia	Has adopted IPSAS type standards since 2015	Not fully implemented throughout the public sector
Nepal	Implements national cash basis accounting standards	Partially adopted in 2018
Pakistan	Has adopted cash basis IPSAS type standards	Partially adopted in 2018
Sri Lanka	Implements IPSAS type standards which are not mandatory	The implementation of IPSAS has not been completed
Vietnam		Is in the initial assessment stages of adopting IPSAS type standards
Africa		
Ghana	Implements IPSAS type standards since 2016	Proposed implementation date: 2021
Nigeria	Adopted in 2019	
South Africa	Uses Generally Recognised Accounting Practice (GRAP) based on accruals	Partially adopted in 2018
Tanzania	Has adopted IPSAS at all levels of government since 2013	
Zambia	Began adopting cash basis IPSAS in 2016	Is committed to fully adopting cash basis IPSAS in 2020
Zimbabwe	Uses cash basis accounting	Adoption of IPSAS by 2021

South America		
Argentina	Uses government-set accounting standards	Implementation of IPSAS not approved
Brazil	Implements modified standards on the basis of independence	Adoption of IPSAS by 2020
Chile	Implements modified standards on the basis of independence	Adopted in 2019
Colombia	Implements full IPSAS since 2017	
Peru	Began implementing IPSAS in 2002; adopted IPSAS in 2016	
Central America		
Barbados	Adopted IPSAS in 2010	Pursuing further reforms
Guatemala	Began adopting IPSAS in 2005	Proposed implementation date: 2020
Jamaica	Uses modified cash accounting standards	Proposed implementation date: 2021
Mexico	Uses accrual standards for its public sector accounts	Partially adopted in 2019

Source: *ACCA (2017), Zhuquan Wang & Javed Miraj (2018), IFAC (2019).*

According to the Table above, progress towards the implementation of IPSAS in developing countries remains slower than desired. Specific and complex challenges hinder progress and need to be addressed. Challenges are linked to political will, legal changes and lack of resources (Zhuquan Wang and Javed Miraj, 2018). In Europe, many countries have decided to adopt IPSAS and have made substantial progress towards their full implementation. Countries such as the Netherlands, France, Switzerland, Sweden, Finland, Austria, Italy, Romania and Russia have adopted IPSAS, while developing countries such as Estonia, Latvia, Lithuania and Malta have also adopted them or are in the process of adjustment.

Greece is at a very early stage regarding the implementation of IPSAS. In May 2015, the Deputy Minister of Finance talked about the need to adopt public sector standards in accordance with IPSAS. Until today, public sector entities still have separate accounting standards.

According to the IFAC there was a progress in IPSAS adoption during 2019. More specifically, 52% of jurisdictions partially adopted some IPSAS, despite different adoption approaches due to national, political and economic realities. Many jurisdictions opted for a gradual approach to accrual-based IPSAS, whereas others adopted IPSAS only for central government entities or are currently using cash based IPSAS (IFAC, 2019).

2.3 Public Sector and Accounting Standardization in Greece

According to international literature, the term “public sector” refers to national governments, local authorities, as well as public sector-related entities such as businesses, councils, and committees (Rallis, 2015). Article 1B of Law 3871/2010 defines the structure of the Public Sector in Greece. The public sector includes the General Government and public enterprises. The General Government consists of the Central Administration, 1st and 2nd degree Local and Regional Authorities (Local Administration Organizations) and Social Security Organizations.

In Greece, public sector entities have separate accounting standards. In Social Security Bodies they were defined by Presidential Decree 80/1997, in the Legal Entities of Public Law by Decree 205/98, in Local Authorities by Decree 315/99, in Public Health Units by Decree 146/03, and in Central Administration by Presidential Decree 15/2011 that was in force until 31-12-2018.

A part of the upgrading of the public accounting in Greece is the establishment of an accounting plan for all General Government Bodies, based on international accounting standards and tailored to the needs of the Public Sector. Presidential Decree 54/12-06-2018 (Government Gazette 103A/13-06-2018) specifies the content and timing of implementation of the General Government Accounting Framework based on internationally accepted public sector accounting standards such as IPSAS. It has been implemented in the Central Administration since 01-01-2019 while in the Social Security Bodies, in the Public Legal Offices, in the Legal Entities of Public Law, in Health Units and in the Local Authorities it will be adopted as of 01-01-2023 and thereafter.

The budgetary procedure of the Local Administration Organizations procedure relies primarily on Decree 17-5/1959, governing the financial administration and accounting of Municipalities and Communities. The Presidential Decree 315/1999 introduces the implementation of the Sectoral double - entry Accounting System of First Degree (Municipalities). The Law that led to the modernization of the financial management of Municipalities is Law 3463/2006. Reference is made to issues related to the financial and accounting management of Local Authorities in articles 259 to 279 of Law 3852/2010. Law 4555/2018 lays down regulations to enhance development action and improve the financial performance of Local Administration Organizations and Law 4623/2019 regulates various issues of Local Authorities.

2.4 First Implementation and Benefits of IPSAS in Greece

Successful implementation of IPSAS requires proper preparation and detailed planning, so that the transition to the new reality can take place smoothly. Political will and legal changes are required as well as new governance regulations and practices. It is essential to cover implementation costs, staff training, and replacement of existing information systems (ACCA, 2017).

According to PWC (2013) it takes an average of three years for an entity to adopt accrual basis accounting in accordance with IPSAS. As pointed out by Laswad and Redmayne (2015), the long time required is due to the fact that change is more than an accounting exercise but a transformation of the public entity. The basic requirements for the implementation of IPSAS are as follows (Lumiotis, 2014):

- Their translation into Greek.
- The acceptance by the government and by public BODIES in general that their implementation is to serve the public interest.
- The training of government personnel who will be required to apply IPSAS.
- Staffing of Public Sector Entities with sufficient and appropriate staff with knowledge, expertise and experience in accounting and standards' implementation.
- The inventory of all assets and liabilities and the creation of a fixed asset register where the fixed assets will be tracked in detail.
- The adoption of modern internal control systems that will contribute to the efficient operation of the public sector services and the proper preparation of financial statements.
- The adoption of modern information systems that will contribute to the accounting organization of the entities and the provision of timely and reliable information to the management.
- Auditing of the financial statements by external auditors so that they can be more transparent and reliable.
- The financial support to cover the costs of their first implementation.

The implementation of IPSAS in Greece is at an early stage. The explanatory memorandum on Law 4270/2014 states that in recent years, in the context of broader fiscal consolidation efforts, significant reform initiatives have been undertaken to establish fiscal rules and supervisory practices and to safeguard control mechanisms that will assist in the adoption of IPSAS. In particular:

- Transparency has been enhanced (through the TRANSPARENCY program) as well as the regular, timely and reliable information on the state of the implementation of the budget of the General Government bodies.
- The digital upgrade of processes and information systems has been promoted in order to meet the new needs of public e-government in relation to monitoring budgetary magnitudes (e.g. SYZEFXIS program, electronic evaluation system, electronic document transfer, digital signatures).
- The audit procedure was strengthened, and the current system of financial audits was reformed, being adapted to international practice and auditing standards.
- Article 156 of Law 4270/2014 establishes the Accounting Plan of the General Government entities. Presidential Decree 54/12-06-2018 (Government Gazette 103A/13-06-2018) specifies the content and timing of

implementation of the General Government Accounting Framework based on internationally accepted public sector accounting standards such as IPSAS.

The advantages and benefits of the implementation of IPSAS in Greece, according to the Press Release of the Hellenic Accounting and Auditing Standards Oversight Board (ELTE) on March 6, 2013, are expected to be significant. IPSAS are anticipated to:

- Improve the reliability, transparency and comparability of public sector financial statements by displaying all transactions that have taken place.
- Ensure the accounting independence of accounting periods.
- Provide better information on the allocation and management of public resources.
- Reduce the running costs of public administration.
- Help to depict the real assets of public entities by recognizing them at fair value.
- Lead to rational financial management with the correlation of income and expenses and the use of modern accounting tools.
- Allow comparisons with the financial statements of private sector companies.
- Improve asset management and cash management.
- Enhance the confidence of citizens and markets.
- Increase the reliability of the assessments of rating agencies and other users of public financial statements.
- Facilitate the future accounting consolidation of public financial statements with public sector companies applying IFRS.
- Lead to a reduction in the impact of political decisions.

Knowing both an entity's financial position and its financial implications helps decision-makers make better financial judgments about the entity and its activities. It also helps to attract public sector investments that potentially create benefits for the wider economy in terms of employment, prosperity and social improvement (ACCA, 2017).

2.5 Prior Research

Research regarding the implementation of IPSAS worldwide appears to be relatively limited. Prior research can be categorised into two main categories: studies in developed countries and studies in developing or least developed countries.

The paths of implementing public sector reforms on budgeting and reporting in Italy and the UK were very different according to Dabbicco and Mattei (2020). The change from the traditional budgetary accounting faced resistance in Italy due to a conservative and bureaucratic approach, in contrast to the UK where the emphasis on accountability and fiscal transparency allowed an efficient alignment between reporting and budgeting (Dabbicco and Mattei, 2020).

Research in Spain and Portugal concluded that in both countries an important factor for implementing IPSAS was public sector accounting setters supported by professionals in business accounting (Jorge *et al.*, 2019). An additional factor in Portugal was the pressure – due to the financial crisis – by the lenders to introduce IPSAS as a public policy (Jorge *et al.*, 2019). In Malta, on the other hand, credibility and legitimacy were the underlying factors for the adoption of IPSAS and not the pressure from the EU (Jones and Caruna, 2016).

Determinant factors in less developed countries such as in Cameroon, included knowledge and awareness, recruitment and staff training, management information systems, sex, age, implementation cost and political cost (Tanjeh, 2016). Research in another African country, Tanzania, has showed that core factors that affect IPSAS implementation are staff experience, in house training, standardised format, involvement of professional accountants and sanctions from the regulatory authorities (Matekele and Komba, 2020).

The adoption of IPSAS appears to have improved the quality of financial reporting in the African continent. Research in Kenya showed an improvement in aspects regarding comparability, relevance, timeliness and faithful representation (Opanyi, 2016). A beneficial effect of IPSAS was also noticed in Liberia, where an increased transparency and accountability in the use of governmental funds was observed (Atuilik and Salia, 2019).

As far as Latin America is concerned, research has showed an emerging trend to adopt IPSASs, with obstacles, however, to achieving the reform goals (Brusca *et al.*, 2016). In Colombia, for example, reform was underway during 2016 and could not at that time be evaluated, whereas in Peru, modernization was more rhetorical than real (Brusca *et al.*, 2016).

Research in Asia also revealed that lesser developed countries face problems in IPSAS implementation. Reforms, for example, in Sri Lanka faced problems due to limited institutional capacity and resources and high political involvement in decision making (Lokuwaduge and Godage, 2020). IPSAS adoption by municipalities in Indonesia took a lot of time. The main drivers that affected the speed of IPSAS adoption were the timing and frequency of council meetings, opposition representatives in the councils, pressure from the supreme audit office and religious beliefs and practices (Boolaky *at al.*, 2019).

As far as Greece is concerned, Cohen and Karatzimas (2016; 2017) examined the standard setting process in Greece and assessed the usefulness and quality of governmental financial reports under modified-cash basis of accounting, an interim step before accrual accounting. Their research showed that standard setting process was ineffectively monitored by politicians and external lenders. Moreover, the change to modified-cash basis did not lead to a high level of accounting information quality and that the information provided was moderately necessary.

Stamatiadis (2009) examined the perceptions of accounting and finance officers of public hospitals in Greece regarding the application of accrual accounting (IPSAS) by the Greek National Health System. Results showed that the adoption rate was satisfactory, without however an adequate adoption rate of accrual-based accounting system. Other research studies in Greece examined public sector budgeting and controlling process (Liapis and Spanos, 2009) and the role of accounting standards (Greek Governmental Accounting Standards and IPSAS) in privatising state owned property (Cohen *et al.*, 2015).

All in all, research in Greece regarding IPSAS appears to be limited, with the case of Greek municipalities not having been adequately examined yet, to the knowledge of the authors.

3. Research Data and Methodology

3.1 Data and Research Questions

The study focuses on the case of first-degree Local Administration Organizations (Municipalities). The survey determines the degree of acceptance, preparedness and readiness of municipalities for the implementation of IPSAS. The survey is aimed at executives and employees of the municipalities' the finance department as well as elected representatives who are responsible for their financial management. It was carried out using a questionnaire sent by e-mail to all municipalities in Greece in the period from January to April 2018.

A follow-up email was sent two weeks later to maximize the responses received. Out of 325 municipalities, 58 municipalities participated in the survey and 114 questionnaires were collected, an acceptable sample for a small-scale survey.

The questionnaire consists of closed-ended questions that have the advantage of being practical because all individuals will answer them by choosing one of the answers provided to them, thus facilitating statistical analysis. Based on previous literature, an agreement /disagreement 5-point scale from 1 (strongly disagree) to 5 (strongly agree) was used for most of the questions.

It is grouped into two parts: the first part contains demographic questions and the second part questions aimed at answering research questions, and additional questions on the basis of which we can determine the opinion of the respondents on the requirements for applying International Public Sector Accounting Standards.

The study aims to provide answers to the following research questions:

- To what extent are the executives of the finance department informed about IPSAS?
- What is the degree of IPSAS acceptance?
- What is the degree of preparation and readiness for IPSAS implementation?
- What are the conditions for the successful implementation of IPSAS?
- What are the required resources in personnel and training?
- What are the requirements and costs in information systems infrastructure for the adoption of IPSAS?

3.2 Methodology

A pilot study with 15 questionnaires was conducted to test whether items were understandable. The pilot study used a test - pretest technique to measure the validity. The current researchers reviewed the comments by members of the pilot sample and adapted the questionnaire accordingly. To test the reliability of the scale, the Alpha Cronbach coefficient is used, which is the most common one and receives values from 0 to 1. 0 is interpreted as unreliable and 1 as strongly reliable. The collected data were analysed using the IBM SPSS statistical analysis program. Descriptive and inferential statistics were used to analyse the research data.

In the process of "measuring" attributes, scales were generated from a multitude of relevant questions and averaged. When testing whether there is a statistically significant difference in the mean of the scale with respect to some demographic factors, when the factor has two levels, the t-test is used in order to test the equality of two population mean values with independent samples. The form of the t-test used is determined by a preliminary test of the equality of population variances performed by the Levene test. Thus, either the test of equal variance, t-test, was selected (when the p-value in the Sig column of the Levene test was greater than or equal to 0.05), or the test of unequal variance, t-test (when the p-value in the Sig column of the Levene test was less than 0.05). There is a statistically significant differentiation in the mean of the two factor levels when the p-value in the Sig column of the t-test is less than 0.05.

If the factor had more than two levels, then either the F-test of one-factor analysis of variance was used (in the case the equality of population variances was not rejected with the Levene test, that is, when the p-value in the Sig column of the Levene test was greater than or equal to 0.05) or the Welch test (if equality of population variances was rejected with the Levene test, i.e. when the p-value in the Sig column of the Levene test is less than 0.05). In the case of rejection of the equality of population mean values (i.e. if the p-value of the test was less than 0.05) then we made multiple comparisons to test the individual mean values per two means. The multiple comparisons methods used are Least Significant Difference (LSD, when equality of population variances applies) and the Tamhanne method (when equality of population variances is rejected).

4. Results

During the process of gathering the questionnaires and processing them, it was observed that an overwhelming 96.5% of the finance department employees of the Municipalities participated in the survey, while only 3.5% of participants were elected representatives of the Administration. The largest percentage, 59.6%, are women and 40.4% are men. 90.4% of the survey participants are 40 to 60 years old and 83.6% have 11 to 20 years of service, mainly employees hired by the "Kapodistrias program"[5] municipalities and thereafter. 43.9% have a position of responsibility and are mainly department heads. Only a very small percentage of heads of Directorates participated in the survey. 71.9% have a bachelor's or master's degree in economics and 89.5% declared that they had not attended IPSAS training seminars. 52.6% of employees from municipalities with up to fifty thousand inhabitants participated in the survey, while 36% of participants came from municipalities with one hundred thousand inhabitants or more.

The research study shows that there is a great deal of acceptance by employees regarding the implementation of IPSAS in municipalities. 87.7% consider their implementation important, while only 12.3% consider it not important. Table 2 below presents the evaluation of the positive elements that will result from the implementation of IPSAS. Since the answers given suggest that they are very important overall, this means that employees accept their implementation.

Table 2. *Evaluation of the importance of positive elements from the implementation of IPSAS.*

	Not important	*Slightly important*	*Quite important*	*Very important*	*Extremely important*
IPSAS are an important element of management and facilitate better decision-making.	3.50%	9.60%	27.20%	39.50%	20.20%
They achieve the international convergence of the accounting of the General Government bodies	2.60%	3.50%	14.00%	38.60%	41.30%
They allow comparisons between the public and private sector.	3.50%	10.50%	28.10%	37.70%	20.20%

[5] *Kapodistrias program, was a major public administration reform which consolidated communities into municipalities in Greece.*

They will contribute to better "public scrutiny" of local government finances	2.60%	7.00%	26.40%	37.70%	26.30%
The quality of the financial statements will be improved.	2.60%	4.40%	19.30%	43.00%	30.70%

Source: *Authors' estimates.*

We tested whether the above positive elements in Table 2 can constitute a measurement of acceptance. The *Alpha* Cronbach coefficient was used to test the reliability of the scale. The test revealed a high degree of reliability in the acceptance scale, (Alpha)=0.858. It also turned out that the mean of the scale is 19.088 and the mean of the answer per question is 3.818. The variance is 15.851 and the variance per question is 0.993, respectively.

Table 3 below presents the mean and standard deviations of the five positive items included in the Acceptance Scale. Whereas the possible answers to the questions are 1=not important, 2=slightly important, 3=quite important, 4=very important and 5=extremely important, the degree of acceptance is close to very important, in the sense that the international convergence of the accounting of the General Government entities is rendered as more important than the other four elements, with an average value of 4.123 and a standard deviation of 0.9606.

Table 3. *Mean value and standard deviation of significance of positive elements from the implementation of IPSAS.*

	Mean value	*Stand deviation*
IPSAS are an important element of management and facilitate better decision-making.	3.632	1.0242
They achieve the international convergence of the accounting of the General Government bodies.	4.123	0.9606
They allow comparisons between the public and private sector.	3.605	1.0358
They will contribute to better "public scrutiny" of local government finances.	3.781	1.0023
The quality of the financial statements will be improved.	3.947	0.9579

Source: *Authors' estimates.*

The test on whether there is a statistically significant differentiation in the mean of the scale with respect to demographic factors revealed a significant differentiation in the information on the application of IPSAS (Table 4). In particular, multiple comparisons show that those who are very or adequately informed are more likely to accept them than those who are less or not informed at all.

Table 4. *Test of the mean value of the scale of significance of positive elements for demographic factors.*

	Sig value - Level of significance 5%
Gender	0.364
Age	0.206
Responsible position	0.584
Years of service	0.855
Category of education	0.649
Degree or postgraduate degree relevant to Economics	0.596
Participation in training seminars on IPSAS	0.254
Information on the implementation of IPSAS	0.014
Size of Municipality	0.112

Source: *Authors' estimates.*

Based on the survey, the overwhelming majority (90.4%) believes that municipalities are not ready for the implementation of IPSAS. Table 5 presents the evaluation of the difficulties arising from their implementation.

Table 5. *Assessment of the Significance of Difficulties in Implementing IPSAS*

	Not important	*Slightly important*	*Quite important*	*Very important*	*Extremely important*
The need to install new information systems	5.30%	16.70%	39.50%	20.20%	18.30%
The lack of resources (funding - equipment) for their implementation	7.00%	23.80%	29.80%	21.90%	17.50%
The lack of qualified staff	0.00%	6.20%	8.80%	25.40%	59.60%
Inappropriate - inadequate institutional framework	0.00%	6.20%	29.80%	37.70%	26.30%
Change of mindset and attitudes towards improving communication transparency and accountability	0.90%	4.40%	26.30%	38.60%	29.80%
Cost of recording and measuring fixed assets	3.50%	11.40%	36.00%	34.20%	14.90%

Source: *Authors' estimates.*

We have examined whether the above difficulties can constitute a scale for measuring the difficulty of implementation and, essentially, the view related to lack of preparedness. The test showed a moderate coefficient of reliability, (Alpha)=0.601. It also showed that the mean of the scale is 22.096 and the mean of the answer per question is 3.683. The variance is 12.088 and the variance per question is 1.006, respectively.

Table 6 below shows the average values and standard deviations of the six difficulties. Whereas the possible answers to the questions are 1=not important, 2=slightly important, 3=quite important, 4=very important and 5=very important, the degree of difficulty is close to very important, with the lack of qualified staff being regarded as more important than the other four, with a mean of 4.386 and a standard deviation of 0.8876.

Table 6. *Mean value and standard deviation of significance of difficulties in implementing IPSAS*

	Mean value	*Standard deviation*
The need to install new information systems	3.298	1.1125
The lack of resources (funding - equipment) for their implementation	3.193	1.1890
The lack of qualified staff	4.386	0.8876
Inappropriate - inadequate institutional framework	3.842	0.8883
Change of mindset and attitudes towards improving communication transparency and accountability	3.921	0.9037
Cost of recording and measuring fixed assets	3.456	0.9968

Source: *Authors' estimates.*

A test of whether there was a statistically significant difference in the mean of the scale with respect to demographic factors showed a significant differentiation in the average score on the acceptance scale in relation to holding a degree in economics (Table 7). Specifically, those who do not have a relevant degree find it difficult to implement IPSAS.

Table 7. *Test of Demographic Factors Mean Difficulty Scale*

	Sig value -Level of sign. 5%
Gender	0.147
Age	0.862
Responsible position	0.879
Years of service	0.673
Category of education	0.791
Degree or postgraduate degree relevant to Economics	0.016
Participation in training seminars on IPSAS	0.098
Information on the implementation of IPSAS	0.558
Size of Municipality	0.603

Source: *Authors' estimates.*

Surveying the opinion of the respondents on the conditions of implementation of IPSAS, it was revealed that 90.3% believe that the knowledge level of the finance department staff of the Municipalities is a little or not at all sufficient for the implementation of IPSAS. Staffing finance department with specialized personnel is deemed necessary. Everyone believes that staff training in double-entry accounting and International Accounting Standards is important. 56.10% of the respondents think that staff training should be done separately in each municipality, while 43.9% think that it should be centrally planned. As regards their training, according to Table 8, 96.4% consider the National Center for Public Administration to be most important, followed by Certified Auditors, as suggested by 94.7%.

Table 8: *Suitability of educational institutions for the training of municipal officials in IPSAS*

	Not suitable	*A little suitable*	*Quite suitable*	*Very suitable*	*Absolutely suitable*
University Professors	6.20%	14.90%	26.30%	30.70%	21.90%
National Center for Public Administration	0.10%	3.50%	14.00%	41.20%	41.20%
Executives of the Central Administration	3.50%	18.40%	31.60%	30.70%	15.80%
Certified Auditors - Accountants	2.60%	2.70%	14.00%	33.30%	47.40%
Private institutions	7.00%	31.60%	37.70%	14.90%	8.80%

Source: *Authors' estimates.*

They also believe that existing information systems cannot meet the requirements of IPSAS and should be replaced by modern information systems. A common information system for all Municipalities is considered by 91.2% to be more functional and efficient, while an additional 77.2% supports that there should be a common information system for all General Government entities.

Municipalities' subsidy to cover the cost of the first implementation of IPSAS is considered by 93.9% to be a very important precondition for the first implementation. It would be important to have the views of the elected representatives of the municipalities, but due to the low percentage of participation we cannot reach the right conclusions.

98.2% of respondents believe that internal audit will make a significant contribution to the development of a system of procedures for each municipality and its effective operation, resulting in greater transparency in the internal procedures and functions of the municipalities. Finally, it is generally accepted by 97.3% that an important role for the adoption of IPSAS is that their implementation is not a question of an accounting nature but an issue concerning the overall functioning and organization of Municipalities.

5. Conclusions

This study raised the issue of the adoption of International Public Sector Accounting Standards in the public sector of Greece. It turns out that Greece is at a very early stage in the implementation of IPSAS compared to other countries in America, Australia, Europe and many developing countries in Asia, Africa, and Central and South America. Public sector entities continue to have separate accounting standards to this day. As part of the broader fiscal consolidation effort, a number of reform initiatives have been taken to help transition to IPSAS, but implementation has been delayed.

The sampling carried out shows that the implementation of IPSAS is widely accepted by the employees of the finance department of the municipalities. The acceptance rates regarding the need to implement IPSAS are very high. It is believed that IPSAS will primarily contribute to the convergence of the accounting monitoring of General Government entities, as well as a better control of the financials of municipalities and an improvement of the quality and reliability of financial statements. According to the results, municipalities are not properly prepared to implement the new accounting standards. The lack of preparation is related, inter alia, to the fact that municipalities do not have staff with sufficient experience in implementing International Public Accounting Standards and in transition processes. The current institutional framework for the implementation of the new standards does not seem to be properly harmonized so as to meet the new challenges. Also important is the “change” factor in the mindset of both those elected and employees, regarding the impact of the implementation of standards on transparency of transactions and accountability.

In conclusion, for the safe transition from the current public accounting system to the new one (IPSAS), it is necessary to staff municipalities with qualified staff and to educate staff in double-entry accounting and IPSAS. Existing information systems should be replaced by a modern one, common to all municipalities.

The first implementation of IPSAS needs to take place after systematic preparation and detailed planning. The development of a transition plan based on international practice and adapted to Greek reality is also needed. Provision of coverage of transition costs and first implementation of IPSAS, internal control, and acceptance by all that their implementation is related to the general good functioning and organization of municipalities are essential for their successful adoption.

The new standards will make a significant contribution to improving the organization of accounting, the preparation of reliable financial reports and the provision of timely and reliable information at the level of municipalities (local administration organizations), at the level of users (suppliers, creditors, etc.), and also at the level of General Government. The elected Government’s determination and political will also play, as always, a key role in the success of such ventures.

In conclusion, it would be useful to conduct a future survey after the implementation of the IPSAS in order to investigate the difficulties encountered by municipalities in the transition process and the benefits arising from their implementation, and to identify the gaps and shortcomings so that the necessary adjustments and improvements can be made. It would also be of interest to conduct research at European and international level with the aim of determining the extent to which IPSAS are implemented in local entities, and their implementation outcomes.

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