The importance and challenges of the implementation of IPSAS accrual basis to the public sector: The case of Kosovo

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\textbf{ABSTRACT}

This paper aims to determine the importance and challenges of the reform and transition towards the International Public Sector Accounting Standards’ (IPSASs’) accrual accounting and its implementation in the public sector in Kosovo. A survey obtained primary data from a considerable representative sample of officials from budget organizations and institutions and members of publicly owned enterprises (POEs) and professional societies. The study analyzed the collected data using descriptive statistics, correlation and the chi-square and Kruskal–Wallis H tests. The reform contributes significantly to a better decision-making process and the use of public funds. It reflects the true long-term implications of policy decisions and therefore helps governments demonstrate accountability in the use of public funds. Despite the identified challenges, the study justifies the suggested reform in Kosovo. The findings emphasize its importance for improving accountability, transparency and financial management and building public confidence in information and the country’s macro-fiscal sustainability position.

\textbf{Keywords:}
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1. Introduction

Because of increasing globalization, there is a need for a common economic language so that stakeholders around the world can communicate with each other. Accounting, as a common economic language, is used by individual cultural groups and tailored to their needs to interpret the information obtained from financial statements. Governments need to prepare and publish high-quality and transparent financial statements that are reliable and internationally recognized by using the IPSASs or equivalent standards. This is a key feature of democratic responsibility, accountability and reliability towards the public. On the other hand, such financial statements can be considered as an opportunity to prepare and publish quality management information for better decision making by contributing to better public service performance and sustainable public finances as a strategic objective. Accrual-based financial statements provide a comprehensive overview of the government’s financial position and performance that is not available in the cash accounting system, which is the main weakness of the IPSAS cash principle, currently in use in most governments, including Kosovo. That is why, among others, the reform and transition towards accrual accounting are necessary. The global financial crisis and the subsequent sovereign debt crisis have highlighted a lack of transparency in public
accounting in the public sector found that, by reporting on their financial position and performance comprehensively and which include the potential risks as a complex and comprehensive change management process, the time needed, the cost stability that these governments are facing. A study by PricewaterhouseCoopers (PwC) (2014) on the implementation of accrual ongoing sovereign debt crisis in some countries around the world has demonstrated the challenges of maintaining financial restructuring process and changes in management. According to the results of the publication by Ernst & Young (2013), the conclusions of the study by the Federation of European Accounting Experts (2007), accrual accounting facilitates better economy, efficiency and effectiveness of public policies. The Public Sector International Financial Accountability Index (IFAC), which disseminated the idea of this reform. The IFAC (2011) indicated that a few factors affect the results of the transition to accrual accounting, which are considered as challenges: (a) a clear legal mandate, (b) political commitment, (c) key officials’ commitment, (d) the availability of adequate resources (human and financial), (e) effective project management structures, (f) adequate IT capacities and (g) proper legislation. The IFAC’s (2012) Policy Position stated that the accrual IPSASs represent an important step towards achieving financial transparency in national governments globally. The study also highlighted the need for governments to undertake the necessary activities and enable the implementation of various institutional arrangements to enhance the transparency and accountability in the public sector. Adejola (2013) also highlighted some of the challenges facing first-time adopters of the IPSASs, which include IT systems, the restructuring process and changes in management. According to the results of the publication by Ernst & Young (2013), the ongoing sovereign debt crisis in some countries around the world has demonstrated the challenges of maintaining financial stability that these governments are facing. A study by PricewaterhouseCoopers (PwC) (2014) on the implementation of accrual accounting in the public sector found that, by reporting on their financial position and performance comprehensively and comparably, governments increase transparency and can be held accountable for the use of public funds. Adamu and Ahmed (2014) while referring to Gérard (2010), concluded that there are some issues related to the implementation of the IPSASs, which include the potential risks as a complex and comprehensive change management process, the time needed, the cost associated with political support and the requirement for consolidated and separate financial statements, meaning that an entity must present financial statements in which it consolidates all the entities that it controls. Ijeoma and Ogbehomeh (2014) found that the transition to the accrual basis of the IPSASs poses the following challenges: systematic identification and assessment of assets and liabilities (on the date of commencement of accrual accounting), a lack of adequate technical resources, political ownership, such as inadequate support at higher levels of the executive, and consolidation issues with other parts of the public sector. The global survey by Schumesch (2015) concluded that governments need to establish and adopt sound and transparent accounting and reporting rules as part of the process of democratic accountability and broader public finance management. According to the results of the study conducted by Ernst & Young (2017), the current public sector accounting and financial reporting standards result in a lack of (a) fiscal transparency (need for accruals) and (b) comparability (need for harmonized accruals) due to incomplete and inconsistent accounting records, indicating the importance and relevance of the reform. Based on the conclusions of the study by the Federation of European Accounting Experts (2007), accrual accounting facilitates better planning, financial management and decision making in governance and is a robust and acceptable way of measuring the economy, efficiency and effectiveness of public policies. The Public Sector International Financial Accountability Index (International Federation of Accountants (IFAC) and Chartered Institute of Public Finance and Accountancy (CIPFA), 2018) highlighted the critical success factors for accrual reform projects, which are the main challenges: (a) coordinated planning, (b) dedicated and supportive policy and senior policymakers, (c) ongoing communications, (d) a change management plan and effective training and (e) capacity-building programmes. Based on the results of the Eurostat commissioned study (Ernst & Young, 2017), the expected long-term benefits of the European Public Sector Accounting Standards (EPSASs) moving towards accrual accounting have been identified: (i) transparency and comparability, (ii) fiscal harmonization and oversight, (iii) a long-term fiscal outlook, (iv) accountability and (v) decision making. Those benefits mainly affect the following stakeholders: (i) policymakers, (ii) taxpayers and service beneficiaries, (iii) financial markets and rating agencies and (iv) EU institutions and national statistical offices.

2. Theoretical framework

Even though the implementation of IPSAS accrual accounting is a relatively new topic, different authors have discussed the need and reasons for the reform and its challenges and benefits in the public sector. Their contribution to these fields and main conclusions are presented in this section. Chan (2006, 2008) concluded that the introduction of the IPSASs commenced because of the dissemination of pressure to advance government accountability and financial transparency as two of the most important elements of good governance that cannot be separated from one another. Vašiček et al. (2008) found that, for many years, accounting professionals, regulators, financial analysts and investors have called for efforts to harmonize accounting standards across countries. PricewaterhouseCoopers (2009) considered that the implementation of accrual IPSASs improves accountability and facilitates the auditing of public institutions. According to Tiron and Mutiu (2006) and Wynne (2011), the pressure for public sector financial reform, specifically shifting from cash accounting to accruals, comes from the International Monetary Fund (IMF), the World Bank (WB), the Organisation for Economic Co-operation and Development (OECD) and the International Federation of Accountants (IFAC), which disseminated the idea of this reform. The IFAC (2011) indicated that a few factors affect the results of the transition to accrual accounting, which are considered as challenges: (a) a clear legal mandate, (b) political commitment, (c) key officials’ commitment, (d) the availability of adequate resources (human and financial), (e) effective project management structures, (f) adequate IT capacities and (g) proper legislation. The IFAC’s (2012) Policy Position stated that the accrual IPSASs represent an important step towards achieving financial transparency in national governments globally. 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Adamu and Ahmed (2014) while referring to Gérard (2010), concluded that there are some issues related to the implementation of the IPSASs, which include the potential risks as a complex and comprehensive change management process, the time needed, the cost associated with political support and the requirement for consolidated and separate financial statements, meaning that an entity must present financial statements in which it consolidates all the entities that it controls. Ijeoma and Ogbehomeh (2014) found that the transition to the accrual basis of the IPSASs poses the following challenges: systematic identification and assessment of assets and liabilities (on the date of commencement of accrual accounting), a lack of adequate technical resources, political ownership, such as inadequate support at higher levels of the executive, and consolidation issues with other parts of the public sector. The global survey by Schumesch (2015) concluded that governments need to establish and adopt sound and transparent accounting and reporting rules as part of the process of democratic accountability and broader public finance management. According to the results of the study conducted by Ernst & Young (2017), the current public sector accounting and financial reporting standards result in a lack of (a) fiscal transparency (need for accruals) and (b) comparability (need for harmonized accruals) due to incomplete and inconsistent accounting records, indicating the importance and relevance of the reform. Based on the conclusions of the study by the Federation of European Accounting Experts (2007), accrual accounting facilitates better planning, financial management and decision making in governance and is a robust and acceptable way of measuring the economy, efficiency and effectiveness of public policies. 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Those benefits mainly affect the following stakeholders: (i) policymakers, (ii) taxpayers and service beneficiaries, (iii) financial markets and rating agencies and (iv) EU institutions and national statistical offices.
3. Status of the Accounting and Reporting Standards in the Public Sector

3.1. Current Status (Worldwide)

The study published by the IFAC and the CIPFA (2018), *International Public Sector Accountability Index 2018 Status Report*, considering 150 countries, addressed 2 main areas on this topic – (i) the current basis of financial reporting and (ii) the financial reporting framework – and reached the following conclusions about both the current situation and the future expectations. The results of this study are also relevant to the conclusions of this paper since they are in line with the results of our research. Regarding the current financial reporting basis, the study’s results showed that, of the 150 countries analysed, 46 use the cash accounting principle, 67 are in the process of transition to accrual accounting and 37 apply the accrual accounting principle. Therefore, while only 25% of governments currently report on the accrual basis, 65% of governments will report on an accrual basis by the end of 2023. According to this study, Asia, Africa and Latin America and the Caribbean will lead the projected growth until the end of 2023. However, the number of governments reporting on the accrual basis will double in the next 5 years. By the end of 2023, according to these plans, 98 governments (65% of those covered by the index) will report fully on the accrual basis.

According to the Public Sector International Financial Accountability Index (IFAC and CIPFA, 2018), the public financial reporting framework has been developed in a variety of ways, many of which use the International Public Sector Accounting Standards. The IPSASs provide high-quality financial reporting guidance to governments and other public bodies around the world to improve their consistency and transparency. According to this report, 51% of governments that are currently reporting on an accrual basis use the IPSASs directly, indirectly or as a benchmark. By the end of 2023, nearly three-quarters (73%) of governments that are reporting on an accrual basis will use the IPSASs in one of these three ways (directly, indirectly or as a benchmark). In addition, regarding the financial reporting framework, the study highlighted that the situation is as follows: 70 countries use national financial reporting standards, 33 states use national standards with the IPSASs as a point of reference, 2 states use national standards based on the International Financial Reporting Standards (IFRSs), 14 states have indirectly adopted the IPSASs through national standards and 31 countries have directly adopted and use the IPSASs. The report concludes by providing a comprehensive overview of government finances: accrual reporting helps to ensure that (a) public funds’ spending is transparent, (b) public officials are accountable and (c) future liabilities are formally recognized and properly planned. These are considered as reasons for the reform and its benefits. Overall, plans for greater use of accrual reporting over the next five years are a promising sign for citizens across the globe. Financial statements under the accrual accounting and reporting principle, which are audited and linked to an inclusive budget, are a key part of improving public financial management worldwide, which is essential to promoting trust and transparency and above all to providing the results that citizens expect and deserve. Of course, challenges need to be addressed properly and in a timely manner to assure a smooth transition and successful implementation.

3.2. Current Status: Kosovo – Legal Framework and Implementation of the IPSASs

The Republic of Kosovo applies the IPSAS cash principle for accounting, while, for financial reporting, the applicable principle is modified cash since the annual financial statements are prepared according to the IPSAS cash basis (for all budget organizations) while disclosing other financial data on an accrual basis as annexes to financial statements. The provision of the application of the accounting and reporting principles is set by the Law on Public Finance Management and Accountability (03/L-048), adopted in 2008, which clearly stipulates that the IPSAS cash basis principle will be applied directly by the Republic of Kosovo. Moreover, the law acknowledges the Classification of the Functions of Government (COFOG) categorization of the expenditures based on the functions of the government, which is applicable in the Kosovo Budgetary Accounting and Reporting System. To implement this framework, a by-law (regulation) on the Reporting of the Budget Organizations (Reg. No. 01/2017) has been adopted. In addition to the IPSAS cash principle, this regulation set the requirements related to the additional disclosure notes (article 8), such as accounts receivable, inventory, payables–liabilities (unpaid invoices), non-financial assets and contingent liabilities. Kosovo has also adopted the IMF Government Financial Statistics Manual (GFSM), in which expenditures are reported based on the Government Financial Statistics (GFSs), the latest version (2014) of which was adopted in 2019. Kosovo has a public accounting classification system that has largely served its purpose well. The current Chart of Accounts has supported the effective management of public finances in Kosovo. The unified Chart of Accounts is consistently implemented in each of the key steps of the budget cycle from budget planning to budget execution and financial reporting. The Chart of Accounts represents the scheme of codes that are applied for the classification of transactions that are budgeted, recorded in accounts and reported within various public financial management systems. Currently, the Chart of Accounts as such does not enable the collection of the additional benefits provided by accrual accounting. As a country aspiring to undergo the transition to accrual accounting (from a professional point of view), Kosovo has undertaken some important steps, which, based on our study, the current literature and other countries’ practices, are prerequisites for the reform: (a) the use of the IPSASs (directly from law), (b) a consolidated budgetary system (all spending units, including the central and local levels), (c) a unified Chart of Accounts (planning, execution and reporting), (d) a treasury single account system (all budgetary organizations, central and local), (e) the use of the COFOG and GFS manuals, (f) annual financial reporting of the general government, including all
budgetary organizations (excluding POEs) and (g) auditing of the individual and annual financial statements of the general government by the National Audit Office – the supreme audit institution. In addition, in Kosovo’s public sector accounting and reporting system, transactions between budget organizations (inter-departmental transactions) are not consolidated in the annual financial statements to avoid duplication and to maintain the consistency of the information reported in the financial statements adopted by the Government (ACCA, 2007; Barrett, 2004).

According to the Financial Statements of 2019 (prepared and approved in March 2020), Kosovo has successfully implemented the revised cash basis IPSAS 2017 (effective from 1 January 2019). The revised version of the cash basis IPSASs implements the proposals made in Exposure Draft 61, Amendments to Financial Reporting under the Cash Basis of Accounting, as officially issued by the IPSAS Board (IPSASB). However, some exclusions exist with regard to extra-budgetary institutions, like radio and television, which directly receive budgetary funds – appropriations by the annual budget law – while not using the applicable legislation of the public finances, rules and procedures for public spending outside the TSA and the Financial Management Information System (KFMIS). A similar situation applies to the Privatization Agency (PAK), which is financed partially by the state budget and partially by own-source revenues. The consolidated Annual Financial Statement does not include publicly/socially owned enterprises (POEs or SOEs), which, based on the current legislation, are not considered as budgetary organizations and use the IFRSs for reporting purposes. Those entities are time after time financed/subsidized (indirectly) by the state budget through respective line ministry and may have a high risk of contingent liabilities for the state budget as well. That is why the reform offers a real benefit and currently, even though some steps are being taken, Kosovo cannot leverage the IPSAS accrual, which is extremely important for each government. Therefore, no consolidation is possible within budget organizations and POEs operating in Kosovo. We conclude that Kosovo uses the principle of cash accounting but modifies it with some accrual elements to present more complete financial information. This indicates that the cash accounting principle in use is not sufficient and does not fully present the financial performance and situation, even with the current disclosure of other information within the financial statements. These are the main challenges and weaknesses of the current accounting and reporting system (Herz, 2007).

4. Empirical Study

Although about half of governments still use traditional cash accounting practices, there is a positive trend. Accounting modernization reforms have been launched or planned worldwide, aiming to use accrual accounting within the next five or ten years and taking the IPSASs as a benchmark. This trend is evident on almost all continents.

4.1. Data Collection Method and Samples

To achieve its objectives, the research was based on the collection of primary and secondary data. Primary data were obtained through a questionnaire that was designed following the elements of the issues examined in this research. In the survey, we applied the five-scale Likert system, which represents the most used and appropriate method for the statistical analysis of data obtained through a questionnaire. Each answer is assigned a weight on a scale from five to one: strongly agree, agree, neutral, disagree and strongly disagree. The questionnaire was sent to the financial officials of budget organizations (ministries, municipalities, regulatory agencies and the independent oversight agency) and a few SOEs operating in Kosovo. Some of the advantages of applying the questionnaire as a research data collection tool are the following: (a) the data are collected in a standardized format; (b) most of the information gathered is factual; and (c) the data can be coded and analysed through known statistical techniques. The questionnaire consisted of two parts, which contained five questions each, with the possibility of answering from strongly agree (5) to strongly disagree (1). The questionnaire investigated the importance of or the reasons for applying the full accrual principles, the need for reform, the challenges that will arise and the factors that will affect their implementation, trying to highlight important aspects, such as the necessary political and managerial support, human resources, technological capacity, resistance to change and so on for the most successful implementation of these future reforms. The first group of research questions elicited responses, that is, the expression of agreement or disagreement with the five statements presented, regarding the importance of and reasons for the reform from cash accounting to accruals and its implementation (IPSASs), as listed in Table V of this paper. The second group of research questions concerned the expression of agreement or disagreement with the five statements presented regarding the challenges of and requirements for the implementation of the reform from cash accounting to accruals (IPSASs), as presented in Table X of this paper. The respondents selected for this research were officials (over 100) of budget organizations and POEs that operate in Kosovo, with the aim of obtaining and processing information for the research and testing the research questions. The response rate was 69%, which was fully acceptable for this research. It is necessary to mention that the respondents were targeted due to their occupation of key positions in the budgetary organizations in charge of implementing the future reform. By disaggregating the respondents, we have the following structure: 23% of them held a leading position in a budgetary organization (chief administrative officers), 61% were chief financial officers and 16% were financial officers, while 54% were from the central level (government, agencies and independent bodies) and 46% were from the local level (municipality). Secondary data for this research were obtained from reports published for this purpose, including those of the IMF, World Bank, IPSAS Board, IFAC (International Federation of Accountants), references and similar research published by other universities, well-known journals and so on.
4.2. Research Model and Data Analysis

Data analysis is the process of summarizing, structuring, evaluating and extracting the meaning of the data collected. The collected qualitative and quantitative data, after processing, were analysed through adequate methods of analysis and the conclusions drawn enabled the clarification of the research issues of this study. The results from the questionnaires were analysed using various methods, such as the chi-square test ($\chi^2$), Kruskal–Wallis H test, correlation analysis through the coefficient of determination (Pearson) and other descriptive statistics, through which the objectives of this study were tested and confirmed, as follows:

(1) The chi-square test ($\chi^2$) is commonly used to test the relationships between categorical variables that are obtained through a standardized questionnaire. It has been used by different authors and researchers for similar cases.

(2) The Kruskal–Wallis H test is appropriate for establishing the existence or otherwise of differences (or differences in opinion) between two or more groups of respondents in a study. It has been used by different authors and researchers for similar cases.

(3) The coefficient of determination is useful because it gives the proportion of the variance (fluctuation) of one variable that is predictable from another variable. It is a tool that allows one to determine how certain one can be in making predictions from a certain model/graph.

(4) The descriptive statistics, which were mainly from the summarized data, were used to analyse the average, median, standard deviation, minimum and maximum, which provided information about the general trend of the main elements of this research.

4.3. Data Analysis and Results

Various methods, such as the chi-square test ($\chi^2$), Kruskal–Wallis H test, correlation analysis through the coefficient of determination (Pearson) and other descriptive statistics, were employed, while, for processing and calculating the results, the XLSTAT (2019) and IBM SPSS Statistics (24) software solutions were used.

4.3.1. Analysing the Data and Results: The Importance of and Need for the Reform

Regarding the importance of and need for the reform to adopt accrual accounting, we obtained the following results and details from each of the methods used.

i) The chi-square test ($\chi^2$) results range from 33.783 to 76.000 and the value of Df (degrees of freedom) varies from 3 to 4, while the p-value (alpha) of 0.000 is less than 0.05 (the significance level).

| Question 1 | Question 2 | Question 3 | Question 4 | Question 5 |
|------------|------------|------------|------------|------------|
| Chi-square | 51.638a    | 59.986a    | 33.783a    | 76.000b    | 39.768b    |
| Df         | 3          | 3          | 3          | 4          | 4          |
| Asymp. sig. | .000       | .000       | .000       | .000       | .000       |

Source: Data obtained by the author

ii) The Friedman test and Kruskal–Wallis H test confirm the results of the chi-square test; however, their value is even higher: 269.513 (Friedman) and 171.749 (H test).

| Q (Observed value) | 269.513 |
|-------------------|---------|
| DF                | 5       |
| p-value (one-tailed) | < 0.0001 |
| Alpha             | 0.05    |

Source: Data obtained by the author

| K (observed value) | 171.749 |
|-------------------|---------|
| DF                | 5       |
| p-value (one-tailed) | < 0.0001 |
| Alpha             | 0.05    |

Source: Data obtained by the author
iii) The correlation test confirms the correlation and dependence between variables, the results being higher than 0.5 for each of them.

### Table 4
Correlation analysis results

| Variables | Respondents | Question 1 | Question 2 | Question 3 | Question 4 | Question 5 |
|-----------|-------------|------------|------------|------------|------------|------------|
| Respondents | 1           | 0.671      | 0.716      | 0.745      | 0.695      | 0.879      |
| Question 1  | 0.671       | 1          | 0.856      | 0.843      | 0.926      | 0.607      |
| Question 2  | 0.716       | 0.856      | 1          | 0.736      | 0.860      | 0.586      |
| Question 3  | 0.745       | 0.843      | 0.736      | 1          | 0.803      | 0.614      |
| Question 4  | 0.695       | 0.926      | 0.860      | 0.803      | 1          | 0.593      |
| Question 5  | 0.879       | 0.607      | 0.586      | 0.614      | 0.593      | 1          |

Source: Data obtained by the author

iv) The results of the descriptive statistics show that the total average – mean – is 3.803 or 76%, with the proper consideration of the corresponding standard deviation (in total) of 0.864, and they are within the same interval.

### Table 4
Descriptive statistics – the importance of and need for the reform

| No. | Research questions/frequency of answers                                                                 | Respondents | Mean  | Med.  | Min.  | Max.  | %    | Std  | Var.  |
|-----|---------------------------------------------------------------------------------------------------------|-------------|-------|-------|-------|-------|------|------|-------|
| 1   | Advances the clear and specific responsibility of managers for efficiency and performance                | 69          | 3.899 | 4.00  | 1.00  | 5.00  | 78%  | 0.789| 0.622 |
| 2   | Provides compliance with treatment by international institutions and donors                              | 69          | 3.971 | 4.00  | 2.00  | 5.00  | 79%  | 0.641| 0.411 |
| 3   | Enables consolidation and comparability at the state level for all sectors                               | 69          | 4.029 | 4.00  | 1.00  | 5.00  | 81%  | 0.857| 0.734 |
| 4   | Enables international comparability of financial information with other governments                    | 69          | 3.826 | 4.00  | 1.00  | 5.00  | 77%  | 0.907| 0.822 |
| 5   | The current statements prepared under the current legislation are incomplete and do not provide the necessary and sufficient timely data for accountability and transparency. | 69          | 3.290 | 4.00  | 1.00  | 5.00  | 66%  | 1.126| 1.268 |
|     | **Total**                                                                                               | **3.803**   | **4.00** | **1.20** | **5.00** | **76%** | **0.864** | **0.771** |

Source: Data obtained by the author

4.3.2. Analysing the Data and Results: The Challenges of the Reform

Regarding the challenges of the reform to adopt accrual accounting, we obtained the following results and details from each of the methods used.

i) The chi-square test ($\chi^2$) results range from 50.594 to 76.783 and the value of df (degree of freedom) varies from 3 to 4, while the $p$-value (alpha) of 0.000 is less than 0.05 (the significance level).

### Table 6
Chi-square test ($\chi^2$) results

| Chi-square | Question 1 | Question 2 | Question 3 | Question 4 | Question 5 |
|------------|------------|------------|------------|------------|------------|
|            | 60.217$^a$ | 66.870$^b$ | 76.783$^c$ | 50.594$^a$ | 79.348$^a$ |
| Df         | 3          | 4          | 2          | 3          | 3          |
| Asymp. sig.| .000       | .000       | .000       | .000       | .000       |

Source: Data obtained by the author

ii) The Friedman test and Kruskal–Wallis H test confirm the results of the chi-square test; however, their value is even higher: 242.493 (Friedman) and 177.413 (H test).

### Table 7
Friedman test results

| Q (Observed value) | 242.493 |
|--------------------|---------|
| DF                 | 5       |
| p-value (one-tailed)| < 0.0001|
| Alpha              | 0.05    |

Source: Data obtained by the author
Table 8
Kruskal–Wallis H test results

| K (Observed value) | 177.413 |
|-------------------|---------|
| DF                | 5       |
| p-value (one-tailed) | < 0.0001 |
| Alpha             | 0.05    |

Source: Data obtained by the author

iii) The correlation test confirms the correlation and dependence between the variables, producing results that are higher than 0.5 for each of them (except Q3, for which the result is 0.4).

Table 9
Correlation analysis results

| Variables | Respondents | Question 1 | Question 2 | Question 3 | Question 4 | Question 5 |
|-----------|-------------|------------|------------|------------|------------|------------|
| Respondents | 1 | 0.708 | 0.747 | 0.432 | 0.748 | 0.613 |
| Question 1  | 0.708 | 1 | 0.740 | 0.500 | 0.771 | 0.747 |
| Question 2  | 0.747 | 0.740 | 1 | 0.608 | 0.794 | 0.738 |
| Question 3  | 0.432 | 0.500 | 0.608 | 1 | 0.529 | 0.801 |
| Question 4  | 0.748 | 0.771 | 0.794 | 0.529 | 1 | 0.808 |
| Question 5  | 0.613 | 0.747 | 0.738 | 0.801 | 0.808 | 1 |

Source: Data obtained by the author

iv) The results in the descriptive statistics show that the total average – mean – is 3.696 or 74%, with the proper consideration of the corresponding standard deviation (in total) of 0.725, and they are within the same interval.

Table 10
Descriptive statistics – challenges and requirements of the reform

| No. | Research questions/frequency of answers | Respondents | Mean | Med. | Min. | Max. | % | Std | Var. |
|-----|----------------------------------------|-------------|------|-----|------|------|---|-----|-----|
| 1   | Public sector reform: budgeting, mechanism for public entities, reclassification and remodelling, performance budgeting, decentralization, etc. | 69 | 3.841 | 4.00 | 2.00 | 5.00 | 77% | 0.656 | 0.430 |
| 2   | Insufficient and inexperienced human resources in the accrual or similar principles (IFRSs) | 69 | 3.565 | 4.00 | 1.00 | 5.00 | 71% | 0.866 | 0.749 |
| 3   | Lack of necessary information and accounting systems that enable reform | 69 | 3.884 | 4.00 | 3.00 | 5.00 | 78% | 0.404 | 0.163 |
| 4   | Hesitation or resistance to change (management and staff) | 69 | 3.536 | 4.00 | 2.00 | 5.00 | 71% | 0.917 | 0.841 |
| 5   | Necessary support from international financial institutions, based on experiences using existing know-how and various donors’ ongoing projects | 69 | 3.652 | 4.00 | 2.00 | 5.00 | 73% | 0.783 | 0.613 |
| **Total** | | **3.696** | **4.00** | **2.00** | **5.00** | **74%** | **0.725** | **0.559** |

Source: Data obtained by the author

4.4. Research Results and Their Interpretation

After analysing the data obtained from the different methods and comparing them with the conclusions reached by the authors in the literature review, we present the results below.

4.4.1. Importance of and Need for the Reform

Regarding the importance of and need for the reform, we obtained the following research results:

(1) The chi-square test ($\chi^2$) results range from 33.783 to 76.000 and the value of Df (degree of freedom) varies from 3 to 4, while the p-value (alpha) of 0.000 is less than 0.05. Since the p-value is less than our significance level (0.05), it indicates that a relationship exists between the categorical variables in our research questions.

(2) The Friedman test and the Kruskal–Wallis H test confirm the results of the chi-square test; with a p-value less than 0.05 (< 0.0001), the observed values are even higher: 269.513 (Friedman) and 171.749 (H test).

(3) The correlation test confirms the correlation and strong dependence between variables by producing results that are higher than 0.5 for each of them.

(4) The results in the descriptive statistics show that the total average – mean – is 3.803 or 76%, with the proper consideration of the corresponding standard deviation (in total) of 0.864, and they are within the same interval.
Considering the results presented above, our research questions and considerations are confirmed; specifically, the importance of and need for reform and transition towards IPSAS accrual accounting in Kosovo have been verified, which is in line with the literature reviewed on this topic.

4.3.2. Challenges and Requirements of the Reform

Regarding the challenges and the requirements of the reform, we obtained the following research results:

1. The chi-square test ($\chi^2$) results range from 50.594 to 76.783 and the value of $df$ (degree of freedom) varies from 3 to 4, while the p-value (alpha) of 0.000 is less than 0.05. Since the p-value is less than our significance level (0.05), it indicates that a relationship exists between the categorical variables in our research questions.

2. The Friedman test and Kruskal–Wallis H test confirm the results of the chi-square test; with a p-value less than 0.05 (<0.0001), the observed values are even higher: 242.493 (Friedman) and 177.413 (H test).

3. The correlation test confirms the correlation and strong dependence between variables by obtaining results that are higher than 0.5 for each of them (except question 3).

4. The results of the descriptive statistics show that the total average – mean – is 3.696 or 74%, with the proper consideration of the corresponding standard deviation (in total) of 0.725, and they are within the same interval.

Considering the results mentioned above, our research questions and considerations were confirmed; specifically, the challenges and the requirements for reform and transition towards IPSAS accrual accounting for Kosovo were supported, in line with the studies on this topic elaborated in the literature review section.

5. Conclusions and Recommendations

Based on this study, we found that the importance of and need for the reform are relevant and valid. The application of high-quality accrual accounting also provides the basis for the development of better management information systems, which contribute to a better decision-making process and better use of public funds. It also contributes to building public confidence in information on the economic, financial and sustainable macro-fiscal position and helps to ensure better disclosure of financial information, improved accountability, transparency, better financial management, better public finance information for the country and donors and improved international technical assistance. In this way, this paper highlighted the necessity and importance of implementing public sector accounting and financial reporting reform (IPSAS accrual principle) by concluding that this reform will enable more efficient use of public funds and advanced public finance management. Further analysis showed that it will contribute to the economy, the society and the research community with general benefits.

As can be seen from the treatment and study, and as confirmed by the research method in agreement with most of the authors and studies that we have consulted on this topic, moving towards reform is a necessity and its positive effects are multifaceted; despite the difficulties and challenges evidenced, it is feasible and worthwhile. Although there are several challenges, as discussed in this paper, addressing them adequately will enable the successful implementation of the reform and transition towards the IPSAS accrual principle for the public sector, which requires the involvement of all budget organizations at all levels, in phases, following a gradual approach.

To summarize, based on the results of this study and the analysis and evidence from international literature, publications and credible studies on the benefits of implementing the reform and adopting the IPSASs with full accrual principles, despite the major challenges identified, the adoption of the IPSASs’ accrual principle in financial reporting is important and relevant, will have a positive impact and will result in stronger public finances. Without the full picture of the public finances in the broader concept and the performance and financial position of a country, it is almost impossible to make evidenced-based decisions and proper policies, which have been proven to be relevant during crises, such as the sovereign debt crisis or the Covid-19 pandemic.

5.1. Conclusions

Regarding the challenges, the study confirms the reform challenges elaborated in this paper, as tested by this research study, the main ones of which are listed below:

1. Lack of necessary resources for the implementation of the reform (financial, human, logistical, etc.)

2. Political instability, necessary political and managerial commitment for the reform
(3) Changes in management and resistance to change (management and staff)

(4) Insufficient and/or inexperienced human resources in the principle of accrual accounting in the public sector (IFRS)

(5) Lack of legislation and local expertise

(6) Lack of asset evidence and no valuation (real estate and valuables)

(7) Lack of necessary information and accounting systems that enable reform

(8) Changing the budgetary system from programme budgeting to performance budgeting (time and resources)

In conclusion, in the reviewed publications (Adejola et al., 2013; Gerard, 2010; IFAC and CIPFA, 2018; Ijeoma & Oghoghomeh, 2014), the researchers were unanimous and concluded that the adoption of IPSAS accruals in financial reporting is accompanied by various challenges and risks arising from the time required, funding sources, professional capacity building, organizational aspects, political support, technical capacity, infrastructure building and legislation, as elaborated in detail in this paper.

5.2. Recommendations

To conclude the paper, as added value to this field, we present a few recommendations that can serve and be relevant to the institutions but also may be subject to further analysis by professionals and other international financial institutions:

(1) Incorporating within the PFM strategy the (medium- and long-term) objective of reforming accounting and reporting to IPSAS accrual accounting by planning the necessary resources and starting gradually with some basic steps;

(2) Raising the awareness at the political and managerial levels by showing the benefits of the reform, which will help governments to achieve better performance regarding service delivery objectives, thus adding value for citizens;

(3) Training and qualification of professional officials and accountants in the public sector;

(4) Initiating changes in legislation and the adoption of best practices by the IPSAS Board;

(5) Assigning to the appropriate institution the duty to identify, record and evaluate assets of all types, from real estate to valuables;

(6) 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.

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