Towards accounting harmonization in Europe: a multinational survey among budget experts

Markus Frintrup
Johannes Kepler University Linz, Austria

Lisa Schmidthuber
Johannes Kepler University Linz, Austria

Dennis Hilgers
Johannes Kepler University Linz, Austria

Abstract
Severe fiscal problems, the insufficient comparability of financial information and increasing demands for better accountability require national governments and international organizations to change their current accounting regimes and to move towards a system of standardized accounting practices. As the International Public Sector Accounting Standards have insufficiently moved Europe towards accounting harmonization in recent years, the European Commission currently aims to suggest the adoption of European Public Sector Accounting Standards. Based on a multinational survey among budget experts, the current article investigates budget experts’ perceptions towards adopting the European Public Sector Accounting Standards. The findings compare attitudes towards new accounting practices and European Public Sector Accounting Standards reform expectations on a comparative basis, and relate them to the current national accounting system and contextual factors. Empirical results indicate great variation in terms of European Public Sector Accounting Standards reform expectations across countries. The study concludes with discussing the implications of the findings for international accounting research, accounting harmonization and the development of a European accounting system.

Corresponding author:
Markus Frintrup, Johannes Kepler University Linz, Altenberger Straße 69 4040, Austria.
Email: markus.frintrup@gmx.de
Points for practitioners

In this early stage of European Public Sector Accounting Standards development, understanding the factors associated with a country’s decision to adopt them could be helpful for practitioners and professionals. The current study identifies information technology costs as a potential barrier to implementing the European Public Sector Accounting Standards. Politicians and standard setters might take this into account while developing the European Public Sector Accounting Standards. Furthermore, this article reveals that encouraging the voluntary introduction of accrual accounting in the first stage of European Public Sector Accounting Standards development might be the appropriate approach of the European Commission.

Keywords
accounting harmonization, accounting innovation, accounting reform, European Public Sector Accounting Standards, international accounting practices

Introduction

Government and accounting systems have been changing significantly during recent decades (Manes-Rossi et al., 2016b). In line with the New Public Management (NPM) paradigm and economic rationalities (Nistor and Deaconu, 2016), financial information systems have been aligned towards an enhanced level of accountability and transparency (Brusca et al., 2018; Christiaens et al., 2015). These accounting innovation efforts are associated with the implementation of accrual accounting at the expense of cash accounting in the public sector (Deaconu et al., 2011). Accrual accounting is expected to increase the transparency of financial information and intergenerational equity (Burth and Hilgers, 2014), as well as enhance cost efficiency (Lampe et al., 2015). An increase in transparency, in turn, induces a reduction in the corruption and opportunistic behavior of politicians (Cuadrado-Ballesteros et al., 2019). Although an increasing number of countries in Europe and worldwide apply accrual or at least modified accrual accounting at the governmental level (OECD, 2017), and recent studies predict an even more rapid increase of accrual accounting application (IFAC and CIPFA, 2019), some European countries still apply cash accounting or at least modified cash accounting (Brusca et al., 2015), and national accounting practices and norms still differ among countries (Pina et al., 2009).

Due to this lack of accounting harmonization and the presence of urgent financial problems, the European Commission (EC) implemented a project to harmonize public sector accounting in 2013 (EC, 2013; Manes-Rossi et al., 2016a). The introduction of the European Public Sector Accounting Standards (EPSAS) should pave the way to European accounting harmonization (Mann et al., 2019;
Nistor and Deaconu, 2016). Although the International Public Sector Accounting Standards Board (IPSASB) has been pushing forward the development of the International Public Sector Accounting Standards (IPSAS) (Sellami and Gafsi, 2019), the usefulness of IPSAS in relation to enhancing public sector accounting is highly controversial. By applying EPSAS in European Union (EU) member states, the EC aims to enhance transparency, comparability and cost efficiency. However, these objectives can only be achieved if EU member states are willing to apply the newly developed standards.

Thus, the purpose of this study is to examine the perceptions of budget officials and experts towards adopting EPSAS, and to gain some insights into the factors that are associated with a country’s decision to adopt EPSAS. In more detail, this explorative study questions whether budget experts foresee their organizations applying EPSAS in the near future and which factors are related to this EPSAS reform expectation. This article uses an online survey conducted among budget officials and experts in all EU member states and applies a quantitative-statistical research design to answer the research question.

With regard to the recent financial crises, analyzing the perceptions towards the adoption of EPSAS is highly relevant as the ongoing EPSAS debate is controversial, and scholars as well as practitioners question whether the harmonization of national accounting systems by implementing EPSAS is adequate to control debt problems (Brusca et al., 2018). Additionally, exploring perceptions towards EPSAS implementation in this early process of EPSAS development might offer the opportunity to derive precious implications for EPSAS standard setters.

The findings of this article make several important contributions. First, by analyzing the viewpoints of European budgeting experts, we contribute to the existing academic literature on EPSAS adoption. In the rather early stage of EPSAS implementation, we give first insights into how and why EPSAS perceptions vary among budget experts. Second, our findings shed some light on the factors that are associated with a country’s decision to adopt EPSAS. Third, our findings indicate that by encouraging the voluntary introduction of IPSAS, the EC might undertake the right steps.

The emergence of accounting harmonization in Europe

From IPSAS to EPSAS

Financial transparency is important as it enables better decision-making for politicians, the providers of financial support and the public (Eulner and Waldbauer, 2018). Once again, the global financial crisis in 2008 illustrated the need for comparable and high-quality statistics and transparent governments (Aggestam-Pontoppidan and Brusca, 2016; Oulasvirta and Bailey, 2016).

According to the EC, there is a need for harmonization with regard to public sector accounting as harmonization enhances transparency, comparability and
cost efficiency (EC, 2013: 5). Many European countries have adopted accrual-based accounting standards in recent years, which are mainly based on IPSAS (Manes-Rossi et al., 2019).

The IPSAS offer an internationally recognized system of public sector accounting standards and were developed by the IPSASB (Aggestam-Pontoppidan and Brusca, 2016). Nevertheless, their effect on harmonization is limited because the IPSASB is a private organization and IPSAS application is thus not mandatory (Harsanyi et al., 2016; Oulasvirta and Bailey, 2016). Furthermore, the usefulness of IPSAS with regard to improving public sector accounting is highly controversial. On the one hand, several international organizations such as the Organisation for Economic Co-operation and Development (OECD) and the EC use IPSAS internally, and financial donor countries demand the use of IPSAS from their borrowers (Aggestam-Pontoppidan and Brusca, 2016). On the other hand, IPSAS are mainly based on the International Financial Reporting Standards (IFRS) (Brusca et al., 2018), which were initially developed for use in the private sector and therefore do not consider the specific characteristics of public sector accounting (Brusca and Martinez, 2016). Consequently, despite internationally recognized accounting standards, there is still a need to harmonize different accounting systems in Europe (Manes-Rossi et al., 2019).

By putting forward Council Directive 2011/85/EU, the EC aims at developing accounting regulations that are more appropriate for use in the public sector (Brusca et al., 2018; Nistor and Deaconu, 2016), and that subject accounting systems to both internal control and external audits (Jones and Caruana, 2015). Although the Council Directive does not demand accrual-based accounting systems, it includes a reference to IPSAS, foreseeing the EC assessing the suitability of IPSAS for EU member states. However, IPSAS should serve as a reference or starting point for the development of EPSAS (EC, 2013). From 2012 onwards, the Task Force EPSAS Governance, the Task Force EPSAS Standards and working groups were established to accelerate the development of EPSAS (Müller-Marqués Berger, 2016). However, EPSAS development is ‘still a work in progress’ (Brusca et al., 2018: 177).

The introduction of EPSAS is divided into two stages of five years each. During the first stage (2016–2020), a framework regulation was adopted and the EPSAS framework and standards were developed. The EC encouraged introducing accrual accounting voluntarily within the first stage by providing financial support. In the second stage (2021–2025), EPSAS should be mandatory for all public entities of EU member states. Whereas the first stage is supposed to increase the financial transparency of member states, the second stage should improve comparability (Eurostat, 2017b). In a recent report, the EC (2019) stated that an EPSAS conceptual framework had been drafted, and during stage 1, EU member states increasingly use accrual accounting. The two-stage approach is currently the only official schedule for the introduction of EPSAS from the EC.
Research on accounting harmonization

Previous research on international accounting harmonization has already discussed the implementation and adoption of international accounting standards. The majority of studies focus on IPSAS. Both single-country studies (e.g. Tanjeh, 2016) and cross-country studies have investigated the stimuli and barriers of IPSAS adoption (e.g. Brusca and Martinez, 2016), as well as associated environmental factors, on a country’s IPSAS adoption decision (Sellami and Gafsi, 2019). In addition to research on IPSAS, studies have examined European accounting harmonization.

In more detail, recent literature has discussed the necessary conditions for implementation (Aggestam-Pontoppidan and Brusca, 2016) or critically evaluated the potential outcomes of harmonization through EPSAS (Jones and Caruana, 2015). Some authors have highlighted the challenges and impacts of the divergence of national and governmental accounts on EPSAS implementation (Caruana et al., 2019), in addition to systemizing public sector accounting purposes and their influence on the EPSAS conceptual framework (Mann et al., 2019). Other authors also describe the European way of harmonization and standardization (Oulasvirta and Bailey, 2016) through qualitative research methods, or provide a consistent picture of the recent reform situation in public sector accounting with regard to the intended harmonization of European public sector accounting throughout EPSAS (Hilgers and Frintrup, 2018). However, the ongoing EPSAS debate is highly controversial, and some authors question whether the harmonization of national accounting systems through EPSAS implementation is adequate to control the debt problems in Europe (Brusca et al., 2018). These authors refer to the necessity of harmonizing national accounts and accounting standards to improve budgetary control (Manes-Rossi et al., 2016a). However, benefiting from EPSAS is only possible when member states are willing to apply the newly developed standards. As there is a lack of recent literature analyzing whether member states actually prefer implementing EPSAS at the national governmental level, the aim of this article is thus to analyze the perceptions towards the implementation of EPSAS by European budget officials and experts.

Theoretical framework

The aim of our study is to gain some insights into the attitudes and perceptions of budget officials and experts towards adopting EPSAS. Figure 1 illustrates the theoretical framework that we are using to deepen our understanding about the factors relating to perceptions towards adopting EPSAS. We differentiate between experts’ attitudes towards EPSAS adoption and their EPSAS reform expectations. The perception towards adopting EPSAS is assumed to be explained by the current accounting system of the respective organization. Previous research has provided some evidence that the sophistication of the current accounting system is linked to the adoption of a new accounting system (Brusca and Martinez, 2016;
Christiaens et al., 2015; Sellami and Gafsi, 2019). In the context of EPSAS, we expect that the maturity of the current accounting system (i.e. the degree to which a modern budgeting and accounting system has been implemented) and expert satisfaction with the current status are related to the perception towards adopting EPSAS. A very high level of maturity and satisfaction with the current accounting system might induce negative reactions towards adopting EPSAS as countries consider their current accounting system as more appropriate and fear high switching costs. This type of relationship is supported by previous findings (Brusca and Martinez, 2016; Sellami and Gafsi, 2019). Furthermore, very low levels of accounting system sophistication and satisfaction might make organizations want to reform their current accounting system and adopt EPSAS (Christiaens et al., 2015). Accordingly, organizations that have not implemented a modern budgeting and accounting system thus far might choose a switch to internationally accepted standards (Christiaens et al., 2015).

In addition to the current accounting system being a factor influencing EPSAS reform expectations, recent literature has analyzed the influence of other contextual variables, such as country size (Clement et al., 2010), external public funding (Sellami and Gafsi, 2019) and necessary investments in information technology (IT), on the adoption of a new accounting standard (Brusca and Martinez, 2016). Related to recent findings on IFRS and IPSAS adoption processes, we focus on financial drivers (both on the organizational and country level), country size, IPSAS adoption and IT maturity.

**Methods and data**

This section provides an overview of the data collection and the sample, and describes the variables used for the analysis.
Data collection and sample description

We combined different data sources to explore the perceptions towards adopting EPSAS and related factors. First, we conducted a web-based survey among budget officials and experts of EU member states. Budget officials and experts are supposed to be well informed about the discussion and reform processes of national accounting systems and are thus perfectly suited for studying attitudes towards EPSAS. Study participants were recruited by scanning the employees of the Ministries of Finance and the Interior and the employees of the Federal Audit Office of all EU member states, as well as members of committees, such as the EPSAS working group. We focused on experts for accounting purposes and on ministries that are responsible for financial matters. This search resulted in 917 individuals with expertise in budgeting and accounting. In 2017, we sent an online questionnaire to these contacts and asked for their voluntary participation in a research study on European public sector accounting. A total of 203 individuals participated in the survey, of whom 75 returned a completed questionnaire. However, due to missing values, our sample is smaller. In our analysis, we only included individuals who gave answers on our dependent variables of EPSAS reform expectation and attitudes towards EPSAS, resulting in a sample size of 50.

The survey was conducted to obtain a view of previous accounting reform experiences and to evaluate future reforms and modernization paths in public sector accounting. The participants were mainly questioned about the perception of their current accounting system and their perceptions of IPSAS and EPSAS. Second, we combined these individual-level data with country-level data such as Eurostat data. The sample of the study consists of individuals from 23 EU member states who gave information on EPSAS reform expectations. By using a macro-unit identifier (i.e. country), we merged the country-level data with the individual-level data, resulting in a hierarchical data structure as the individuals are nested within countries. Table 1 summarizes the study’s sample with regards to EPSAS reform expectations. We received feedback from all EU member states, except for Bulgaria, Estonia, Hungary, Poland and Croatia.

Measures

We measure perceptions towards adopting EPSAS in two ways: (1) EPSAS reform expectation; and (2) attitudes towards EPSAS adoption.

EPSAS reform expectation. To measure organizational EPSAS reform expectations, the respondents were asked when they expect their organization to introduce EPSAS. The respondents selected one of the following answers: ‘within the next five years’ (5), ‘within the next ten years’ (4), ‘within the next 15 years’ (3), ‘much later’ (2) or ‘never’ (1).
**Attitudes towards EPSAS adoption.** This variable is measured by four items on a seven-point Likert scale, which is anchored with totally disagree (1) and totally agree (7). The items are as follows: (a) ‘EPSAS would . . .’: (a) ‘be useful because EPSAS-based financial statements would be comparable across countries’; (b) ‘be useful because the bail-out risks between EU member states would be made more transparent’; (c) ‘better display my country’s debt situation’; or (d) ‘enhance accountability towards the general public on the government’s financial position’. Cronbach’s alpha reports a value of .86.

**Maturity of financial management.** The maturity of financial management measures whether prominent reform elements have been implemented in recent years. It is a measure of the reform and innovation activity of a state, aiming for a ‘modern’ budgeting and accounting system. We asked the survey participants which of the following elements of the governmental budgeting and accounting system are currently being applied at the national level in the respondent’s country: (a) accrual accounting; (b) balance sheets; (c) consolidated financial statements; (d) budgeting based on an accrual accounting system; (e) debt brakes; (f) performance measurement; and (g) performance budgeting. Survey participants had to state for each element if it is already applied (‘2’), applied only in some areas (‘1’) or not applied (‘0’). The maturity of financial management is measured by the sum of the seven answers. The higher the level of the measure, the higher the maturity of financial management.

**Duration of accrual accounting.** The organizational duration of an accrual accounting system is measured by a dummy variable, taking the value of ‘1’ if the system has been applied for more than ten years and ‘0’ for ten years and less.
Satisfaction with current accounting system. Satisfaction with the current governmental accounting and budgeting system at the national level in the respondent’s country is measured by four items. We asked to what extent the respondents agreed with the following statements: ‘The existing accounting system . . . ’: (a) ‘provides high transparency with regard to the consumption of financial resources’, (b) ‘provides high transparency with regard to the presentation of public assets (governmental real estate, infrastructure, etc.)’; (c) ‘generates information that enables politicians’ good decision making’; and (d) ‘allows for comparison with similar organizations/authorities/ministries’. The higher the value of the measure, the higher the satisfaction with the current country’s accounting and budgeting system. The Cronbach’s alpha reports a value of .88.

Adoption of IPSAS. A country’s adoption of or alignment with IPSAS (OECD, 2017) is measured by a dummy variable, taking the value of ‘1’ if the member state has already been applying IPSAS at the time of the survey and ‘0’ otherwise.

IT maturity. The respondents’ perception of organizational IT readiness is measured by a composite measure of two items: ‘The IT architecture in my organization is fit for introducing EPSAS’; and ‘Only small adjustments in our IT infrastructure are needed in order to be prepared for implementing EPSAS’. The higher the value of the measure, the more the organizational IT is prepared for implementing EPSAS. Cronbach’s alpha reports a score of .85.

Country’s debt level. The general government debt level of European member states is measured by the amount of a country’s total gross government debt as a percentage of its gross domestic product (GDP) (Eurostat, 2017c). A categorical variable is coded with five categories (in percentages: 1 = below 40; 2 = 40–59; 3 = 60–79; 4 = 80–99; 5 = 100+).

Perceived financial situation. In addition to debt level, the financial situation is measured by the respondents’ perception. A composite measure of three items indicates to what extent experts agree with the following statements: ‘Fiscal savings are urgently needed in our country’; ‘Fiscal savings play a major political role in our country’; and ‘We are not able to finance public tasks in a sustainable way’. The higher the value of the measure, the worse the country’s financial situation is perceived. The Cronbach’s alpha reports a value of .67.

Country size. Country size is measured by the number of inhabitants (Eurostat, 2017d). A variable is coded with three categories (in millions: 1 = below 5; 2 = 5–10; 3 = 10+).
Findings

Perception towards EPSAS

To shed light on the perception towards EPSAS adoption, we first conduct a descriptive analysis in a cross-country comparison. We analyze experts’ responses to organizational EPSAS reform expectation. Table 2 indicates that 86% of the accounting experts expect the adoption of EPSAS. However, the time frame differs greatly. The majority of individuals anticipate introducing EPSAS within the next ten years. In contrast, 14% assume that their organizations will never apply EPSAS. Czech and German experts are among those who do not foresee EPSAS adoption in their organizations, having comparatively low average attitudes towards EPSAS, as illustrated in Figure 2. Although EPSAS are intended to be mandatory, it is up to the affected member states to implement them more or less rapidly.

Figure 2 illustrates the attitudes towards EPSAS adoption in a cross-comparative perspective and highlights two key findings. First, although the attitudes towards the new accounting system vary greatly across the countries, the majority of the sample countries have high preferences (e.g. high positive attitudes) towards EPSAS. For example, Italy, Greece and Cyprus are among those countries with positive attitudes towards introducing EPSAS. All of the countries mentioned have faced particularly large fiscal problems recently and have high levels of debt (Eurostat, 2017c); therefore, their EPSAS preference seems to be a response to financial crisis. In contrast, Germany serves as an outlier, with comparatively negative attitudes towards the introduction of a new accounting system. In contrast with those countries with high EPSAS preferences, Germany holds a rather low level of debt. This finding is in line with the German government’s critique of the mandatory implementation of EPSAS on the basis of a loss in budgetary sovereignty and the costs associated with the implementation of EPSAS (German Federal Council, 2017).

Second, the results show differences in the attitudes towards EPSAS within countries. In particular, the attitudes towards EPSAS vary greatly within France and the Netherlands. The diverse attitudes among the French and Dutch people might be caused by each nation’s accounting characteristics. France recently faced a public sector accounting reform that foresaw the move to accrual accounting in 2006, which proved to be a long and expensive project. France supports the introduction of EPSAS but only as a non-binding recommendation (Calmel, 2017).

Table 2. Organizational EPSAS reform expectation.

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<th>Time</th>
<th>Within 5 years</th>
<th>Within 10 years</th>
<th>Within 15 years</th>
<th>Later</th>
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<td>%</td>
<td>22</td>
<td>40</td>
<td>12</td>
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Note: $N = 50$. 
Figure 2. Attitudes towards EPSAS implementation (1 = very low; 7 = very high).

Note: \(N = 50\).
With regard to the Netherlands, there is no overall framework for public sector accounting. As the Netherlands shows a rather low level of accrual accounting maturity, the proponents of EPSAS introduction might expect high benefits when implementing accrual accounting, which results in a positive attitude. Nevertheless, the government does not plan to change the accounting system from cash-based to accrual accounting, which might lead to lower (more negative) attitudes (Eurostat, 2017a). The correlation analysis (see Table 3) indicates a significant and positive relationship between the attitudes towards EPSAS and the organizational expectation of adopting EPSAS, meaning that those individuals with positive attitudes towards EPSAS adoption might expect their organization to adopt EPSAS in the near future.

In the following, we investigate the factors correlating with EPSAS reform expectation and attitudes towards EPSAS in an explorative manner. We test whether (1) the current accounting system applied in the organization or the country and (2) the contextual variables are related to differences in individuals’ perception of EPSAS and their implementation.

**Current accounting system**

First, we assume that the organizational or national accounting system is related to perceptions towards EPSAS. Although accrual accounting is increasingly applied

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<th>Table 3. Correlation matrix.</th>
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<td>Variable</td>
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<td>---------</td>
</tr>
<tr>
<td>1 EPSAS reform expectation</td>
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<td>2 Attitudes towards EPSAS adoption</td>
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<td>3 Maturity of financial management</td>
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<td>4 Satisfaction with current accounting system</td>
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<td>5 Adoption of IPSAS</td>
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<td>6 Duration of accrual accounting</td>
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<td>7 IT maturity</td>
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<td>8 Country’s debt level</td>
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<td>9 Perceived financial situation</td>
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<td>10 Country size</td>
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<td>Mean</td>
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<td>SD</td>
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Note: The sample size differs among variables due to missing values. The significance levels are indicated as follows: + p < .10; * p < .05; ** p < .01; *** p < .001
in Europe, there are great differences in how countries apply accrual accounting (Pina et al., 2009). Due to these differences, this study explores whether there is a relationship between the maturity of financial management and EPSAS reform expectation.

On the one hand, there might be a negative relationship between the maturity of the current accounting system and the adoption of new accounting standards as countries consider their local accounting standards as more appropriate (Brusca and Martínez, 2016; Sellami and Gafsi, 2019). Furthermore, countries with a low level of accounting maturity might choose to switch to internationally accepted standards (Christiaens et al., 2015). However, survey findings do not reflect any linear relationship. In testing the relationship between the attitudes towards the current accounting regime and EPSAS reform expectations, the result of the correlation analysis is non-significant, indicating no relation between satisfaction with the current accounting regime and EPSAS reform expectation. Our findings do not reflect the results from recent literature because the perception of an organization’s own accounting standards does not seem to be correlated with its EPSAS reform expectation and thus might not function as a barrier or an inducement to EPSAS implementation.

In addition, we analyze the relationship between the duration of accrual accounting and EPSAS reform expectation. Correlation analysis indicates a negative and significant relationship between the duration of accrual accounting and EPSAS reform expectation, though only at a 10% significance level. Although the countries that have already applied accrual accounting could be more willing to implement EPSAS due to lower expenses and less effort needed for adaption, this study provides different results. This finding could be explained by the heterogeneity of the application of accrual accounting throughout Europe (Harsanyi et al., 2016). Although accrual accounting is already implemented, the diversity of the application between different countries might not lower the effort or expense accompanying EPSAS implementation.

**Contextual variables**

In addition to examining the current accounting system as a factor influencing EPSAS reform expectation, various researchers have analyzed the factors associated with the reporting level in a cross-national context. Accordingly, the adoption and implementation of IFRS is influenced by differences in culture, language, country size and economic and political factors (e.g. Clement et al., 2010). Thus, in terms of EPSAS, this study examines the correlation between country-related factors, such as a country’s economic situation, the status of its IPSAS adoption and its size, and its EPSAS reform expectation.

As findings indicate, there is no statistical relationship between a country’s level of debt and its EPSAS reform expectation. As Figure 2 shows, countries with a rather high level of debt (i.e. Cyprus, Portugal and Greece) are
among those who seem to have high EPSAS readiness. Thus, there seems to be a relationship between the debt level and EPSAS reform expectation in heavily indebted countries.

We tested the relationship between perceived financial situation and EPSAS reform expectation. Correlation analysis indicates a positive and significant relationship between a country’s perceived financial situation and an organization’s EPSAS reform expectation.

Defining country size by total population and market capitalization, Clement et al. (2010) found a negative relationship between IFRS adoption and country size. This negative correlation is explained by two reasons. First, powerful countries might not feel a need to adopt international standards, either because they already have a well-established financial accounting system or because the international standards do not meet the country’s specific needs with regard to their special economic situation. Second, a politically and economically powerful country might face difficulties in implementing international standards because many constituents (such as the Securities and Exchange Commission in the US) do not intend to lose control over the country’s standard-setting process (Clement et al., 2010).

This study’s findings indicate that there is only a weak correlation between a country’s size and its attitudes towards EPSAS, though only at a 10% significance level. Thus, countries of different sizes might have similar attitudes towards implementing EPSAS. This outcome is in line with this study’s findings on the correlation between the perception of the present accounting regime and EPSAS reform expectation. As Clement et al. (2010) stated, larger countries might have well-established financial systems and might not feel the need to change these systems. Therefore, country size could have a negative impact on IFRS adoption. However, our survey findings suggest that there is no relationship between EPSAS reform expectation and country size.

In addition, our findings indicate a significant relationship between EPSAS reform expectation and IPSAS adoption, though only at a 10% significance level. Recent research states that countries whose government accounting system is influenced by IPSAS might be more willing to substitute their accounting system with a harmonized system at the European level (Manes-Rossi et al., 2016a). The IPSAS are based on accrual accounting and the switch from IPSAS to EPSAS might be more difficult when the present accounting regime is cash-based or characterized by national accounting standards.

When implementing new accounting standards, investments in IT represent an important challenge. This outcome is also confirmed by recent research on a country’s decision to implement IPSAS (Aggestam-Pontoppidan and Brusca, 2016; Brusca and Martinez, 2016). Therefore, lower levels of IT maturity could be seen as a barrier. Indeed, the results of the correlation analysis indicate a positive and significant relationship between organizational IT maturity and EPSAS reform expectation.
Discussion and implications

Discussion

Severe financial problems have recently pushed governments and international organizations to modernize their current accounting system and, for example, to adopt IPSAS. However, only a few EU member states currently apply IPSAS, which is explained by non-binding regulations, controversial opinions about their usefulness in harmonizing European accounting and a lack of recommendation by the EC. In contrast, the EC aims to develop its own accounting standards for EU member states by 2025. This study’s aim was to advance our understanding of the adoption of accounting standards in EU member states and to analyze the attitudes and perceptions of budget officials and experts towards adopting EPSAS. The key findings of this study are discussed in the following.

First, the great majority of budget officials and experts expect the adoption of EPSAS. In fact, most of these experts foresee implementation within the next ten years. Nevertheless, 14% of sample experts expect EPSAS introduction never to happen. In addition, the majority of our sample countries have a high preference towards EPSAS. Germany serves as an outlier, reflecting the government’s refusal of mandatory EPSAS introduction, which is caused by the fear of losing budget sovereignty. Furthermore, EPSAS preferences vary greatly within countries, especially in France and the Netherlands. This result might be due to the nations’ special characteristics as France generally supports EPSAS but does not foresee the introduction being mandatory.

Second, this study provides some evidence of an effect of the current accounting system on budget experts’ perception of EPSAS. Accordingly, the duration of accrual accounting is negatively correlated with an individual’s attitudes towards EPSAS. Similarly, the longer a country has already applied accrual accounting, the less is its perceived or expected benefit from the implementation of EPSAS. Although accrual accounting is already implemented, the diversity of the application between different countries might not lower the effort and expense accompanying EPSAS implementation.

Third, the organizational and country context seems to matter in terms of the perceptions towards EPSAS adoption. The findings indicate a significant relationship between EPSAS reform expectation and IPSAS adoption. Countries whose government accounting system is influenced by IPSAS might be more willing to substitute their accounting system with a harmonized system at the European level, thereby corroborating findings from Manes-Rossi et al. (2016a). The study’s finding might reflect experts’ familiarity with financial reporting based on international standards (see Kober et al., 2010). IPSAS are based on accrual accounting and the switch from IPSAS to EPSAS might be more difficult when the present accounting regime is cash-based or characterized by national accounting standards. In addition, Brusca and Martinez (2016) note that IPSAS-adopting countries perceive certain stimuli related to the adoption of IPSAS, such as the necessity of
harmonizing public sector accounting, as being more important than non-adopting countries.

In addition, by analyzing the correlation between organizational IT maturity and EPSAS reform expectation, we add a resource-based view (Penrose, 1959) to research on EPSAS. In accordance with recent literature on IPSAS implementation barriers (Aggestam-Pontoppidan and Brusca, 2016; Brusca and Martinez, 2016), IT costs might be negatively correlated with accounting innovation, such as adopting EPSAS. Perceived low IT maturity is related to higher anticipated IT costs, which is a reason for a country’s low levels of EPSAS reform expectation.

Furthermore, there is a significant relationship between the country’s financial situation and its EPSAS reform expectation. First, our analysis shows that there is no statistical relationship between a country’s debt level and its attitude towards EPSAS. However, there seems to be a relationship between the debt level and EPSAS preference in heavily indebted countries. Second, the perceived financial situation is positively correlated with the organization’s EPSAS reform expectation. This finding corroborates the results of recent studies on IPSAS adoption. For example, Sellami and Gafsi (2019) found that external public funding is positively associated with a country’s decision to adopt IPSAS. The country’s financial situation also seems to be relevant in terms of EPSAS reform expectations. This outcome might also be explained by the fact that international donor organizations exercise coercive pressure on countries facing financial problems and demand the use of high-quality financial statements as a requirement for financial assistance (Manes-Rossi et al., 2016a).

**Theoretical implications**

Exploring how European budget officials and experts perceive EPSAS adoption allows us to make several contributions. First, by analyzing experts’ attitudes towards adopting EPSAS and organizational EPSAS reform expectations, we provide a multinational comparison of perceptions towards the implementation of accounting standards. In particular, we contribute to the literature analyzing the process of EPSAS implementation (Aggestam-Pontoppidan and Brusca, 2016; Oulasvirta and Bailey, 2016) by highlighting the attitudes and perceptions of those who are responsible for financial reporting.

Second, in addition to examining organizational EPSAS reform expectations in a cross-country comparison, we explore why budget experts vary in their perceptions. We add to the research on accounting harmonization by building a framework providing possible explanations for disparities in EPSAS adoption. Whereas various studies have analyzed the drivers and barriers of IPSAS adoption in single-country and cross-country settings, offering several important findings for the literature regarding the adoption of new accounting standards, perceptions towards EPSAS adoption have been largely neglected thus far. By focusing on the effects of current accounting systems, we make a first step in extending our understanding of varying perceptions towards adopting EPSAS. We argue
that discussing the viewpoints of European budget experts on the adoption of EPSAS is important at this stage so that challenges can be identified early in the development process.

**Implications for practice**

This study also offers some directions for practice. First, it offers some deep insights into the factors related to a country’s decision to adopt EPSAS. With regard to recent financial crises, it appears interesting that there seems to be a relationship between a country’s debt grade and its EPSAS preference for at least heavily indebted countries. This is highly relevant because the intended harmonization by means of implementing EPSAS should not only enhance transparency, comparability and cost efficiency, but also be a reaction to the aforementioned recent financial crises. Furthermore, correlation analysis indicates that there is a significant relationship between the perceived financial situation and EPSAS reform expectation. Therefore, European member states might believe in EPSAS capability to improve the public sector’s financial situation.

Furthermore, our correlation analysis shows a significant relation between perceived IT maturity and a country’s EPSAS reform expectation. Low perceived IT maturity is related to low EPSAS reform expectation. This outcome might show the challenges of EPSAS implementation to politicians and standard setters so that they can take into account the barriers, such as IT costs, and find solutions that overcome them. As the status of IPSAS adoption shows a positive correlation with EPSAS reform expectation, the EC might initiate the necessary and appropriate steps while encouraging the voluntary introduction of accrual accounting within the first stage of EPSAS implementation by providing financial support.

**Limitations and future research**

While this study has several strengths, such as a quantitative empirical research design and a sample that covers budget experts from nearly all EU member states, it also has some limitations that could be overcome in future research. These limitations are related to the limited number of analyzed observations, which prevents us from applying multivariate statistical methods.

Nevertheless, the potential challenges associated with adopting EPSAS offer abundant research opportunities. Future research is recommended to focus on budget experts’ attitudes towards EPSAS adoption more deeply. By applying a case-study design, the drivers and stimuli associated with the EPSAS reform expectations of single countries could be explored in more detail. Furthermore, motivation theory might shed some light on the motives of other key players in the project of European public sector accounting. Due to their role as international donors and their influence on a nation’s credit rating, attitudes towards European accounting harmonization from both politicians and individuals from
financial institutions and rating agencies would be a fascinating area of future investigation.

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ORCID iDs
Markus Frintrup https://orcid.org/0000-0001-7392-2186
Lisa Schmidthuber https://orcid.org/0000-0002-0349-9965

References


Eurostat (2017a) Collection of additional and updated information related to the potential impacts of EPSAS. EPSAS Working Group 17/15. Available at: https://circabc.europa.eu/sd/a/c59e1ba2-6c9b-4051-9a65-3ed2e67b74ca/item%2020%20Collection%20of%20information%20related%20to%20the%20potential%20impacts%20of%20EPSAS.pdf (accessed 4 July 2019).


**Markus Frintrup** is a researcher in the Institute of Public and Nonprofit Management at Johannes Kepler University Linz, Austria. His research includes public sector accounting (IPSAS and EPSAS) and public accounting reform.

**Lisa Schmidthuber** is a post-doctoral researcher in the Institute of Public and Nonprofit Management at Johannes Kepler University Linz, Austria. Her research interests include public innovation management (open government, citizen sourcing, open data), digital transformation and accounting innovation (IPSAS and EPSAS).
Dennis Hilgers is a professor in the Institute of Public and Nonprofit Management at Johannes Kepler University Linz, Austria. His research interests include public budgeting and accounting reform, public accounting standards (German Commercial Code /IPSAS/EPSAS), public financial and performance management, innovation management in public institutions, open government/open data, citizen participation, open innovation, and technology and knowledge transfer.