

The coverage of public sector financial management in MPA and MPM programs: evidence from Europe

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Abstract

Purpose – This paper reviews Master in Public Administration (MPA) and Master in Public Management (MPM) programs in public and private European higher education institutions. It aims to evaluate how public sector financial management (PSFM) courses are structured and integrated into curricula to equip future public sector managers with the necessary skills.

Design/methodology/approach – The study uses the prototype framework of Falivena *et al.* (2023) to assess the coverage of the financial management dimension by European MPA and MPM programs offered in a group of selected European countries. The analytical part of the framework is extended by considering models of public administration, size and stages of public sector accounting reform.

Findings – The results show divergence across countries in how MPA and MPM programs are designed. While patterns can be observed in the skills provided by the relevant PSFM courses, the programs do not yet appear ready to provide a comprehensive competence package for future public sector managers, especially for those who will occupy upper-level finance-related functions in public sector organizations.



Originality/value – Recent literature underlines the importance of PSFM education for public sector managers, especially in the context of current and future PSFM reforms. Despite this, the provision of relevant courses in MPA and MPM programs still appears rather problematic, with insufficient coverage and inadequate interest from faculty. Moreover, evidence about the situation in European countries is lacking. Our study reveals the need to assess the existing trade-off between considering country-specific features and the necessary European harmonization in the broad field of PSFM education.

Keywords Curriculum, Higher education, Master in public administration (MPA), Master in public management (MPM), Public sector financial management (PSFM)

Paper type Research paper

1. Introduction

Education and training for employment in the public sector, especially in the core administration of central or federal, regional, and local levels, has been a major focus for most European countries for many years (Reichard and Schröter, 2018). In Europe, public administration, as an academic discipline, is characterized by rivalries among academic core disciplines such as accounting, economics, informatics, law, management sciences, political science, public finance, and sociology.

In this context, recent literature has underlined the importance of public sector financial management (PSFM) education for future public sector managers (Karatzimas *et al.*, 2022). Maher *et al.* (2020) argue that understanding fiscal and financial information and knowing how to use them to affect policy is critical for anyone interested in public sector management. Besides understanding, public sector managers need to effectively communicate financial results to politicians and stakeholders such as debtors and citizens (Waymire *et al.*, 2015). In line with this, Cohen and Karatzimas (2022) suggest that future public sector managers will likely be more interested in comprehending this information for decision-making purposes rather than generating it or learning the technicalities of accounting.

Therefore, financial management skills are considered essential for public sector managers' careers (Cohen and Karatzimas, 2022; Heiling, 2020; Thom, 2019; Waymire *et al.*, 2015) and are an integral part of master programs in public administration (Sun, 2022). Despite this, the coverage of PSFM in Master Programs in Public Administration (MPA) and Public Management (MPM) has been problematic over the years, with neither sufficient coverage nor adequate interest from faculty (Haupt *et al.*, 2017; Martin and Waymire, 2017; Neves *et al.*, 2022). Regarding the curriculum of MPA and MPM programs, Reichard and Schröter (2018) pointed out that the "canonization" of these programs is still an ongoing process, while Brans and Coenen (2016) observe a lack of Europeanization in European MPA programs so far. Although there are numerous studies on the positioning and role of PSFM courses within MPA programs in the USA (e.g. Moody and Marlowe, 2009; Sun, 2022), little is known about the situation in European MPA and MPM programs.

The aim of this paper is to review MPA and MPM programs in public and private European higher education institutions (HEIs), to assess whether proper consideration is given to PSFM courses. The analysis assesses the extent to which PSFM courses are included in curricula and which subjects are covered. A deeper understanding of European MPA and MPM programs shall be developed by analyzing programs across countries with varying models of public administration, sizes, and stages of public sector accounting reforms.

MPA and MPM are master programs typically attended by students interested in pursuing a career in public administration (Van der Waal and Oosterbaan, 2013; O'Neill, 2022). Therefore, the focus of this paper is on study programs primarily intended for future public sector managers that typically require formal academic qualifications at the master's level. The study thus offers empirical evidence on the situation regarding the coverage of PSFM topics in European MPA and MPM programs, a rather understudied topic. This is particularly relevant when considering the PSFM harmonization process ongoing in the European Union (EU) (European Commission, 2024), which may point to a required harmonization in the curriculum of MPA and MPM programs and their course contents.

The study applies the framework suggested by [Falivena et al. \(2023\)](#) to relevant data from eight European countries: Austria, Croatia, Cyprus, Germany, Greece, Italy, Portugal, and Spain. This framework, to date the only existing tool of this kind, is particularly noteworthy as it is grounded in the essential skills and competencies needed for entering the profession, including budgeting and financial management, thus it is deemed as appropriate for the purposes of this study. In this context, financial management competency is considered a fundamental skill for public sector managers ([Cohen and Karatzimas, 2022](#); [Thom, 2019](#)).

A comparative approach is followed given the exploratory nature of this study, to promote a deeper understanding of PSFM education within the selected European countries and to learn from the more advanced ones ([Heiling, 2024](#)). Based on the authors' knowledge, there are no empirical studies on PSFM coverage by MPA and MPM programs in Europe.

By applying the framework, consistency with the most critical PSFM competencies is recognized for each program. This approach enables the understanding of the extent these programs provide the basic elements of public financial management skills identified by [Heiling \(2020\)](#) and [Smith et al. \(2021\)](#), which currently represents the most needed skills in the field of PSFM. Then, a closer look at the specific PSFM courses is taken to gain a better understanding of the specific elements of the respective courses within each country.

The results have important implications for PSFM educators and heads of MPA and MPM programs as they highlight specific needs regarding the coverage of the topics. Moreover, the results have implications for current and future public sector managers as they emphasize the importance of having appropriate PSFM knowledge for a career in the field.

The paper proceeds as follows: Section two provides the relevant literature background. Section three presents the methodological approach, while Section four presents the findings. Section five includes the discussion and section six concluding remarks and avenues for further research.

2. Literature review and previous empirical research

2.1 *The importance of teaching PSFM in MPA and MPM programs*

Financial management skills are considered essential to a future career in the public sector ([Cohen and Karatzimas, 2022](#); [Thom, 2019](#); [Waymire et al., 2015](#); [McDonald et al., 2024](#)) and are an integral part of master programs in public affairs and administration ([Sun, 2022](#)). For MPA and MPM programs, it is a challenge to assess which topics should be more adequately covered to avoid consuming precious time on topics that are not beneficial for students when they join the public sector workforce ([Denison and Kim, 2019](#)). Financial management and budgeting are usually covered in a single course in MPA and MPM programs, which means that instructors must choose the topics on which to focus, leaving many other topics insufficiently covered ([Sun, 2022](#)). Therefore, it is crucial to have a clear picture of what is taught in MPA and MPM programs concerning PSFM subjects and to assess whether they are sufficient for effective training and meet current practitioners' demands.

Research on what is taught in MPA and MPM programs about PSFM subjects has been conducted almost entirely in the US context, with other countries being limitedly researched so far ([Karatzimas et al., 2022](#)). This could possibly be explained by the importance of the Certified Public Accountant exam in evaluating knowledge on government accounting in the US ([Karatzimas et al., 2022](#)).

2.2 *Evidence from US studies*

Financial management is undoubtedly a field highly relevant to future public sector managers, but, according to the relevant literature, it is not sufficiently covered in MPA and MPM programs, and the interest shown by faculty is not adequate ([Neves et al., 2022](#)). In the early 1990s, focusing on the United States, [Frank and McCollough \(1992\)](#) concluded that public administration education was not equipping public financial managers with the necessary

skills to perform their duties effectively. More recently, [Haupt et al.'s \(2017\)](#) study on US local government managers' perceptions reveals that US MPAs do not sufficiently cover budgeting or finance, despite the financial nature of public administrations' operations. Furthermore, studies on MPA curricula (e.g. [Egenolf and Willis, 1983](#); [Holder, 1978](#); [Martin and Waymire, 2017](#)) recognize a lack of specialized faculty, as well as students' interest, and financial resource constraints, as major obstacles to efficiently offering public finance courses.

In addition to these issues, recent global challenges in political, economic and technological spheres, as well as the emergence of megatrends like digitalization and sustainability, require changes and the addition of innovative topics in the teaching of management skills to future public sector managers ([Sinervo et al., 2021](#)).

In the 1980 and 1990s, US MPA and MPM programs mainly focused on the provision of general financial management skills ([Denison and Kim, 2019](#)). It appears that debt management was one of the most popular subjects of PSFM taught in MPA programs ([Thai and Lynch, 1982](#)), while the most adequately covered topic was budget preparation, and, to a lesser extent, expenditure and revenue forecasting and cost-benefit analysis ([Thai, 1986](#)). [Grizzle \(1985\)](#) shows that the majority of MPA programs offer a single course in financial management and budgeting that does not significantly cover the needs identified by practitioners. Topics such as government accounting and computerized financial modeling, as well as cost-revenue and cost-benefit analysis and financial condition evaluation are hardly included in the teaching. [Grizzle and Yu's \(1990\)](#) research on US MPA programs recorded the coverage of topics that focus on government accounting and financial reporting, budgetary processes and approaches, capital budgeting, taxation, debt, and cash management.

Later on, [Moody and Marlowe \(2009\)](#) present a similar picture of courses that emphasize budget execution/analysis/preparation, performance budgeting, capital budgeting, and the politics of budgeting, while [Purtell and Fossett \(2010\)](#) record the inclusion of financial management for the nonprofit sector in the traditional topics of budgeting in the public sector. However, [Moody and Marlowe \(2009; p. 54\)](#) concluded that "what was being taught 25 years ago" in the US was still being taught then, in 2009. Most recently, [Sun \(2022\)](#) provides an update on the status of PSFM teaching in US MPA programs, reaching the same conclusion that the content did not change much. According to this updated picture, US MPA programs still focus on budgeting, particularly the budget process, the politics of budgeting, different approaches on budgeting and budget analysis, as well as revenue sources and expenditures, and financial statements ([Sun, 2022](#)).

2.3 Evidence from non-U.S. and non-European studies

In the last 2 decades, few studies on the status of PSFM curricula and teaching in MPA programs outside the US have been published (e.g. [Ahmed, 2019](#); [Cordery, 2013](#); [Smith et al., 2021](#)). [Smith et al. \(2021\)](#) explored topics and methodological approaches to teaching public financial management in Mexico and examined how public accounting/finance education can limit corruption. They argue that most Masters in Public Policy (MPP) and MPA programs in Mexico "devolve classical theories of economics and public finances" limiting the classes that use the "more applied field of public financial management approach in the understanding of public finance and budgeting systems as a whole" ([Smith et al., 2021, p. 43](#)). Nevertheless, they conclude that there is a common characteristic among the MPA programs, namely the significant coverage of public finance ([Smith et al., 2021](#)). In a comparative study between USA and Latin America MPA/MPP programs, [Sanabria-Pulido et al. \(2016\)](#) observed some similarities and notable differences due to the different contexts, societal needs, and demands of students and employers. According to [Purón Cid's \(2019\)](#) survey, Latin American, Caribbean and Mexican MPA programs focus more on public finance management compared to North American ones, with the most common courses being "Public Finance Management" and "Performance Evaluation and Measurement".

2.4 The situation in Europe

[Brans and Coenen \(2016\)](#) found that despite the attempts over the last decades to harmonize higher education in Europe, there is still no single European model for teaching Public Administration. In line with this, [Adam et al. \(2020\)](#) found that HEIs in Germany, Italy, Portugal, and Spain have limited coverage of PSFM topics, presenting several differences in program offerings and topic coverage. These differences can be seen in the programs' labels, duration and to an extent reflect the varying employability needs in different contexts ([Brans and Coenen, 2016](#)).

Nevertheless, there is no clear picture on the coverage of PSFM topics by European MPA and MPM programs. Given the importance of these topics for the efficient operation of the public sector ([Kioko et al., 2011](#)), this paper intends to shed light on the status of PSFM coverage in a sample of European countries.

2.5 Literature background on public administration competencies

A major concern in PSFM education is the gap between academic advancements and the needs of practitioners, highlighting the need for stronger alignment between supply and demand in public administration ([Newland, 2000](#); [Bolton and Stolcis, 2003](#); [Gabris et al., 2010](#)). The literature frames academics and MPA and MPM curricula as the supply side, while public sector practitioners represent the demand side ([Gabris et al., 2010](#)). This disconnect becomes problematic when the educational offerings fail to meet the needs of practitioners ([Lee, 2020](#)). Relevant studies therefore emphasize the essential competencies, skills or knowledge practitioners require ([Lee, 2020](#)) with budgeting and financial management frequently highlighted as key components ([Lazenby, 2010](#); [Haupt et al., 2017](#)).

In this context, and throughout the years, several researchers have called for changes in the PSFM curriculum covered in US MPA programs. For instance, [Tummalla \(1982\)](#) suggested that financial management should be taught separately from budgeting to ease pressure on the budget course. [Frank \(1992\)](#) recommended re-orienting the teaching of public financial management to be less focused on budget theory and more on cash management, forecasting, and budget execution.

The debate during the last decade has revolved around incorporation of competencies into MPA course syllabi. [Peddle and Thurmaier \(2011\)](#) urged for a wider debate on specialization competencies that would lead to revising the curriculum through a faculty-driven approach, helping students acquire necessary competencies. [Haupt et al. \(2017\)](#) agree that competency-based curricula can enhance student learning and career preparedness for public service, while [Thom \(2019\)](#) emphasizes the importance of dynamic curricula that respond to global challenges. Recent studies by [Heiling \(2020\)](#) and [Smith et al. \(2021\)](#) focus on the identification of key sub-competencies and their significance in PSFM. Additionally, emerging "megatrends" such as sustainability, digitalization, and e-government are posing new challenges to the traditional competencies of public administrators ([Sinervo et al., 2021](#)).

According to the US-based Network of Schools of Public Policy, Affairs, and Administration (NASPAA, 2019), MPA programs need to ensure that students are prepared for a career in public service and that they should address the following five core competencies: (1) leading and managing in public governance, (2) participating in and contributing to the policy process, (3) analyzing, synthesizing, thinking critically, solving problems and making decisions, (4) articulating and applying a public service perspective, and (5) communicating and interacting productively with a diverse and changing workforce and citizenry. [Sun \(2022\)](#) notes that since there are no guidelines for the incorporation of PSFM courses in the curricula, NASPAA accredited MPA programs should design the desired competencies and related courses by themselves.

Inspired by the US NASPAA, the European Accreditation of Public Administration Programs emerged to cover non-USA public administration programs. The relevant competencies are based on the US ones but place more emphasis on research training [1] as a core component of public administration education ([Brans and Coenen, 2016](#)).

Although not specifically mentioned, the PSFM competencies appear to fall within the first core competency, that of leading and managing in public governance (Brans and Coenen, 2016). Beyond that, Smith *et al.* (2021) consider public finance and budgeting a collection of sub-competencies that include among others financial management, public finance, budgeting, resources management, accounting, and auditing. Finally, Heiling (2020) considers from an accounting perspective the following sub-competencies as crucial: public sector accounting, management accounting, Government finance statistics (GFS), consolidated financial statements, non-financial reporting, public-private partnerships (PPPs) and digitalization and open government. Amid the implementation of accrual accounting in the public sector, the ongoing harmonization of public sector accounting, as well as the management of public finances, Heiling (2020) emphasized the critical need for competences in areas such as accounting, auditing, and budgeting. Contrary to this guidance, Smith *et al.* (2021) found in their empirical study on Mexican MPA programs that courses focused on accounting, auditing, and most notably budgeting, were among the least covered in these programs. This disparity suggests that the status of public sector accounting reforms, namely the applied bases of accounting (cash versus accrual), may influence the design and content of MPA curricula [2].

3. Methodological approach

3.1 Sample

The countries of the sample were selected following a purposive sampling approach. According to this approach, the final sample includes specific cases purposively selected among those that could be possibly included, based on the assumption that specific cases hold important and different views about the examined topic (Robinson, 2014; Etikan *et al.*, 2016; Sharma, 2017; Campbell *et al.*, 2020; Saunders *et al.*, 2023). Countries are often used as the sample in studies applying purposive sampling (e.g. Schwarzer *et al.*, 2015; Adam *et al.*, 2020; Gupta *et al.*, 2023). Through this approach, we manage to include specific contexts that may implement PSFM education differently. The selected countries exhibit key differences in their administrative model, country size, and public sector accounting regime (see Table 1). Such diversity is expected to enhance our understanding of the topic under study, as it is presented in different contexts. While ensuring that the sample reflects a broad spectrum of perspectives, this method also strengthens the validity of the findings in the European setting.

By considering countries with different administrative models, the paper captures a variety of governance structures, decision-making processes, and public sector management traditions. This aligns with Kuhlmann and Wollmann's (2019) administrative model classification, which divides European public administration systems into clusters (Continental European federal model, Southern European Napoleonic model, and Anglo-Saxon model). These classifications influence how public sector reforms, including accounting practices, are implemented, and are therefore also relevant in regard to PSFM education content.

Including countries of varying sizes (measured by population) ensures that the paper accounts for structural differences that may arise due to scale. Larger countries may have more complex bureaucratic systems and diversified economies, while smaller countries might have more centralized and streamlined governance. By incorporating both, the study provides a more comprehensive analysis of the factors influencing public sector accounting reforms, which in turn influence the content of PSFM education.

Countries of the sample were also chosen based on their status in public sector accounting reforms, particularly in relation to the adoption of different accounting bases (cash, modified cash/accrual, accrual). By selecting countries that differ in this matter, the paper ensures a nuanced understanding of how these variations may influence PSFM education.

Table 1. Country's characteristics

Country	Austria	Croatia	Cyprus	Germany	Greece	Italy	Portugal	Spain
Total population	9.1 mil	3.87 mil	1.2 mil	84.4 mil	10.5 mil	58.8 mil	10.5 mil	48 mil
Number of public servants	364,896	233,955	48,120	5.2 mil	565,464	3.6 mil	742,000	2.7 mil
Administrative system	Federal States Local	National Regional Local	State Local	Federal States Local	State Regional Local	Central Regional Provinces Local	Central Local Districts	National Regional Local
Administrative model	Continental European federal	Continental European federal	Anglo- Saxon	Continental European federal	Southern European Napoleonic	Southern European Napoleonic	Southern European Napoleonic	Southern European Napoleonic
Bases of accounting at central government level	Modified accrual	Modified cash	Cash	Cash	Modified cash	Modified cash and some accrual information	Accrual	Accrual
Bases of accounting at local government level	Modified accrual	Modified cash	Mixed (cash and accrual)	Modified accrual (in most states)	Accrual	Modified cash and some accrual information	Accrual	Accrual
Source(s): Authors' elaboration								

Thus, the usage of the purposive sampling method in this paper ensures the most appropriate diversity to enhanced interpretability. The diversity of the sample allows for richer qualitative analysis, helping to explain the factors driving variations in PSFM education.

The above being considered, the following eight countries were selected: Austria, Croatia, Cyprus, Germany, Greece, Italy, Portugal, and Spain. [Table 1](#) provides general information about these countries.

3.2 Assessment framework

To achieve the study's objective, the multistep methodological framework proposed by [Falivena et al. \(2023\)](#) is adopted, which evaluates MPA and MPM programs against specific skills and competencies deemed necessary in the PSFM area. This methodological approach involves three main steps:

- (1) Identification of all MPA and MPM programs that include at least one course covering the critical sub-competencies related to PSFM as outlined in relevant literature ([Heiling, 2020](#); [Smith et al., 2021](#)), namely (1) budgeting, (2) financial management, (3) public finance and GFS, (4) management accounting and resource management, (5) public sector financial accounting and reporting, (6) consolidated financial statements, and (7) auditing.
- (2) Collection of all relevant information on key features of both the entire master program and the individual PSFM-related courses.
- (3) Analysis of the syllabi of the identified courses to assign a score – on a scale from 1 to 7 – assesses the coverage of PSFM sub-competencies.

If a master program offers multiple courses in PSFM, these are assessed separately and then summed up to obtain an overall score. For example, if a MPA program offers two PSFM-related courses, the syllabi of both courses are collected. Each syllabus is analyzed to identify the specific topics covered in relation to the seven sub-competencies. If one of the two courses cover only “budgeting”, it scores 1/7. If the second course covers both “budgeting” and “public sector accounting”, it scores 2/7. Finally, the MPA program will receive a score of 2/7, as “budgeting” is not double-counted for the program. This approach allows for an understanding of the extent to which MPA and MPM programs provide the basics of the seven competencies (scale 1–7) and evaluates the overall quality of the master programs related to PSFM skills, avoiding double counting of the same competencies.

[Table A1](#) in [Appendix](#) provides the definition of the sub-competencies in PSFM identified by [Heiling \(2020\)](#) and [Smith et al. \(2021\)](#) which are used to screen the courses' syllabi. Although the [Falivena et al. \(2023\)](#) methodology allows for further comparisons, such as local *versus* general best practices and drawbacks, avenues for pedagogical improvement or future research on PSFM education, this study is limited to the initial assessment of the topics covered by different European programs with the aim of providing an overview of the situation and identifying gaps in curricula and/or insufficiencies in PSFM-coverage by courses, opening research issues and related avenues for further exploration. Consequently, public entities may need to offer on-site professional training to equip their employees with the necessary skills.

To gain deeper insights into European MPA and MPM programs, a fourth step has been performed, which goes beyond the ones of [Falivena et al. \(2023\)](#)'s framework, to involve the magnitude of the different administrative models, size, and state of public sector accounting reforms. In accordance with [Rhodes \(2016\)](#), skills should be crafted consistently to the context. Indeed, the administrative models matter on MPA and MPM curricula and basic feature as the size of a country may impact curricula design. For instance, programs in smaller countries might prioritize core sub-competencies like budgeting or financial management, while larger countries might offer a broader range of courses.

Table 2 shows the adapted analytical framework from Falivena *et al.* (2023).

4. Results

In this section we start by presenting descriptive findings in subparagraphs 4.1 to 4.3. Then we follow with more analytical perspectives, in section 4.4 by applying Falivena *et al.*'s (2023) model, and in section 4.5 to 4.7 by cross-analyzing with country's characteristics (administrative model, size and public sector accounting regime).

4.1 Characteristics of the MPA and MPM programs

Table 3 presents the general characteristics of all the MPA and MPM programs offered in the eight countries. The results show divergence in how MPA and MPM programs are developed across the different European countries analyzed, not only between countries, but also within the countries themselves. There are several differences in terms of total European Credit Transfer and Accumulation System (ECTS) granted by the programs, as well as in terms of duration and the number of courses offered. As expected, most of the programs are offered in the national language.

Table 2. The analytical framework

Steps 1-2		Preliminary search of MPA/MPM programs within each country in the field of Law, Economics and Statistical Sciences, and Political and Social Sciences						
		Mapping all MPA/MPM programs containing course(s) aimed at giving students the first NASPAA/EAPAA core competence (managing public governance) with the coverage of PSFM areas						
		Country spreadsheet containing the most important features of selected MPA/MPM and related PSFM course(s)						
Researchers' discretion limited by adapting the Critical Learning Outcome Methodology (Jackling <i>et al.</i> , 2013; Lawson <i>et al.</i> , 2015; Wessels, 2010; Zhang <i>et al.</i> , 2020)	Step 3	Assessing the coverage of the first core competence-managing public governance-of the EAPAA/NASPAA involves investigating the presence and scoring the content of the PSFM courses within each MPA/MPM program. This is done by evaluating the coverage of the following sub-competencies: budgeting, financial management, public finance and GFS, management accounting and resource management, public sector financial accounting and reporting, consolidated financial statements and, auditing (Heiling, 2020; Smith <i>et al.</i> , 2021)						
	Course 1	1	2	3	4	5	6	7
	Course 2	1	2	3	4	5	6	7
	Course N	1	2	3	4	5	6	7
	MPA /MPM Score	$\sum_{c=1}^n$ Double counted competencies are excluded for determining the score						
Step 4 – Analysis and Discussion		Analysis of MPA/MPM programs in countries with regards to countries': - administrative model, - size, and - state of public sector accounting reforms. Discussion of findings.						

Source: Authors' adaptation and extension from Falivena *et al.* (2023)

Table 3. Characteristics of the MPA and MPM programs

	Austria	Croatia	Cyprus	Germany	Greece	Italy	Portugal	Spain
No. of eligible MPA and MPM programs for the analysis	4	4	6	42	12	48	9	11
MPA	1	3	5	6	4	34	7	4
MPM	3	1	1	2	8	14	2	7
Other				34 ^a				
No. of ECTS per program (total)	120	120	90 (1 offers 110) Av. 93.3	60–120 (av. 97.9)	90 (1 offers 120) Av.92.5	120	90–120 (av. 113.3)	60
Duration in semesters	4	4	3–4 (av. 3.3)	2–6 (av. 4)	3–5 (av. 3.3)	4	3–4 (av. 3.8)	2
Language	German (1 in English)	Croatian	Greek (1 in English)	German (4 in English, 11 mixed)	Greek (1 in English)	Italian (2 in English, 1 in German)	Portuguese	Spanish (in some cases, local language, e.g. Catalan, Gallego, is used as well)
No of courses offered (average)	7–64 (av. 28.9)	15–27 (av. 21)	8–14 (av. 10.83)	6–25 (av. 12.8)	7–16 (av. 10.7)	12–18 (av. 14.6)	10–13 (av. 11.5)	6–15 (av. 10)

Note(s): ^aIncluded in other are 9 MBA, MSc, Master of Law (LLM) and Master of Governance (MEGA) degrees, as well as 25 Masters in Arts (M.A.), one to two-year staged degree programs according to the Bologna reform, usually with one subject

Source(s): Authors' elaboration

4.2 Characteristics of the offered PSFM courses

As shown in [Table 4](#), in most cases a small percentage of the MPA and MPM programs do not offer any PSFM-related courses at all, except for Italy, where 20 of the 48 programs (41.7%) do not offer such courses, and Portugal, where 4 out of 9 programs (44.4%) behave the same. In the cases where such courses are offered, more than half of them – with the exception of Spain and Greece – are mandatory, indicating that in several cases the PSFM courses offered are elective.

To analyze the weight of the PSFM courses, the average ECTS offered by these courses was compared with the average ECTS of the program. Germany and Cyprus achieve the highest scores (11% and 9.4%, respectively), while Austria, Croatia, and Portugal receive the lowest scores (2%, 4% and 4.6%, respectively).

4.3 Sub-competencies covered by the programs

An exam of the sub-competences provided by the relevant PSFM courses reveals certain patterns (see [Table 5](#)). The majority of the assessed programs cover the topic of “Budgeting”, followed by “Management accounting and resource management” and “Public sector financial accounting and reporting” in terms of top coverage by the MPA and MPM programs. Traditionally, the budgeting process and resource management are integral parts of the public sector, while financial accounting and reporting has recently gained more attention. Conversely, in Germany, it is notable that courses in management accounting and resource management are more often offered than budgeting courses.

Ranking lower in terms of coverage are “Consolidated financial statements”, followed by “Public finance and GFS”, and “Auditing”.

4.4 Average program scores

By applying the methodological scoring process to the available syllabi of the PSFM courses, scores were assigned to each course and, ultimately, to each program. The scores received by each program are reported as [supplementary material](#) available online ([Table S1](#)). It is important to remind that, according to [Falivena et al.'s \(2023\)](#) framework, the maximum score a program can receive is seven.

[Table 6](#) provides an overview on the average program scores for the countries in scope.

Smaller countries like Austria and Cyprus report a higher average program score compared to larger ones. The highest average program score is that of Greece (4.57), while the lowest is observed in Croatia (2.67). The average score by program across all countries in scope turns out to be 3.43 out of 7, mainly due to the limited coverage of Consolidated Financial Statements, Auditing and GFS and Public Finance.

4.5 Analysis by administrative model

The analysis of the Continental Europe Federal group (Austria, Croatia, and Germany) shows that Austria is more homogenous in terms of the PSFM-related courses per program and in the ECTS of PSFM-related course. Highlighted in this group can also that in Austria all offered PSFM courses are mandatory whereas in Germany only 66% of those courses are mandatory. Overall, Austria also shows a higher average program score than Germany. When analyzing the sub-competencies in this group it needs to be highlighted that in Croatia Public finance and GFS are among the most covered sub-competencies, whereas Public sector financial accounting and reporting is not covered at all.

Cyprus is the only country in our sample representing the Anglo-Saxon model. Whereas Cyprus is by far the smallest country, it is important to note that it offers more MPA and MPM programs than, for example, Austria. Also, the numbers of programs offering a PSFM-related course is relatively high (e.g. in comparison to Italy or Portugal), while the number of PSFM-related courses per program is relatively low (1–2). Cyprus has the second highest average program score, meaning that the Cyprus programs are able to cover a larger number of

Table 4. Characteristics of the offered PSFM courses

	Austria	Croatia	Cyprus	Germany	Greece	Italy	Portugal	Spain
No of programs offering a PSFM-related course (percentage)	4 (100%)	3 (75%)	5 (83.3%)	37 (88.1%)	9 (75%)	28 (58.3%)	5 (55.6%)	8 (72.7)
No of PSFM-related courses (either mandatory or elective)	9	3	8	73	16	49	12	17
No of PSFM-related courses per program (av.)	2–3 (av. 2.25)	1	1–2 (av. 1.6)	1–5 (av. 1.8)	1–3 (av. 1.8)	1–3 (av. 1.7)	1–3 (av. 2.4)	1–4 (av. 2.12)
No of mandatory courses	9	2	5	48	8	35	9	6
% of mandatory courses on total number of PSFM courses	100%	66.7%	62.5%	65.7%	50%	71.4%	75%	35.3%
ECTS of PSFM-related course	1–3 (av. 2.42)	5	5–10 (av. 8.8)	3–12 (av. 10.9)	5–10 (av. 7.2)	6–12 (av. 8)	4–7 (5.25)	2.5–10 (av. 4.2)
Average PSFM courses' ECTS to total Program ECTS	2%	4%	9.4%	11%	7.8%	6.7%	4.6%	7%
Source(s): Authors' elaboration								

Table 5. Most and less covered sub-competencies

	Austria	Croatia	Cyprus	Germany	Greece	Italy	Portugal	Spain
No of programs scored	3	3	4	36	7	28	6	7
No of PSFM courses scored	7	3	7	71	11	43	12	16
Most covered sub-competencies	<ul style="list-style-type: none"> Budgeting (4 times) Financial management (4 times) Management accounting and resource management (3 times) 	<ul style="list-style-type: none"> Budgeting (3 times) Financial management (2 times) Public finance and GFS (2 times) 	<ul style="list-style-type: none"> MA and Resource management (4 times) Budgeting (3 times) 	<ul style="list-style-type: none"> MA and resource management (35 times) Budgeting (30 times) Public sector financial accounting and reporting (17 times) 	<ul style="list-style-type: none"> Public sector financial accounting and reporting (9 times) Budgeting (8 times) Financial management (8 times) 	<ul style="list-style-type: none"> Financial management (24 times) Management accounting and resource management (23 times) Public sector financial accounting and reporting (21 times) Budgeting (20 times) 	<ul style="list-style-type: none"> Budgeting (7 times) Financial management (7 times) Public sector financial accounting and reporting (6 times) 	<ul style="list-style-type: none"> Budgeting (8 times) Public sector financial accounting and reporting (7 times)
Less covered sub-competencies	<ul style="list-style-type: none"> Auditing (0 times) Consolidated financial statements (0 times) 	<ul style="list-style-type: none"> Public sector financial accounting and reporting (0 times) Auditing (0 times) Consolidated financial statements (0 times) 	<ul style="list-style-type: none"> Consolidated financial reporting (0) 	<ul style="list-style-type: none"> Consolidated financial statements (4 times) Public finance and GFS (9 times) Auditing (10 times) 	<ul style="list-style-type: none"> Consolidated financial reporting (1 time) 	<ul style="list-style-type: none"> Public finance and GFS (4 times) Auditing (6 times) Consolidated financial reporting (8 times) 	<ul style="list-style-type: none"> Public finance and GFS (2 times) Auditing (1 time) Consolidated financial statements (1 time) 	<ul style="list-style-type: none"> Public finance and GFS (0 times) Consolidated financial statements (1 time) Management accounting and resource management (1 time)

Source(s): Authors' elaboration

Table 6. Average program scores per country

Country	Average program score
Austria	3.66
Croatia	2.66
Cyprus	3.75
Germany	3.03
Greece	4.57
Italy	3.25
Portugal	3.50
Spain	3.00
Countries' average	3.43

Source(s): Authors' elaboration

sub-competences by a relatively smaller number of courses; also, the average PSFM courses' ECTS to total program ECTS is relatively high. Interesting to note is that the public sector financial accounting and reporting sub-competency is not among the most covered sub-competences in Cyprus.

In terms of the Southern Europe Napoleonic group (Greece, Italy, Portugal, and Spain) it can be highlighted that on the upper end Italy offers by far the highest number of MPA and MPM programs—even more than Germany. On the low end it was found that Spain, based on its size, offers a below-average number of programs (11 in total). However, in comparison to Spain, Italy and Portugal have relatively less programs offering a PSFM-related course. When it comes to the number of mandatory courses, our analysis shows that in Spain only around 35% of the PSFM courses are mandatory. For Spain it can be noted that Management accounting and resource management is among the less covered sub-competencies. From an overall perspective (Table 7) one can say for the Southern Europe Napoleonic group that it has a higher score than the Continental Europe one (3.12 vs 3.58). However, by removing Greece, which is clearly an outlier (4.57) the difference would be importantly resized (3.12 vs 3.25). After all, Cyprus shows the highest score. However, this is mainly due to the few MPA and MPM related PSFM courses scrutinized.

4.6 Analysis based on country size

Based on the findings presented above, significant differences can be identified between the eight countries, but also common patterns. For the scope of the analysis, an equal-size clustering method was applied, resulting in three main groups according to the total number of MPA and MPM programs offered within a country. This clustering approach also reflects the size of the countries in terms of their population and number of public servants within a country. The groups are composed as follows: Group 1: Austria, Croatia, and Cyprus (up to 6 eligible programs), Group 2: Greece, Portugal, and Spain (between 9 and 12 eligible

Table 7. Average program scores by cluster

Cluster	Average program score
Continental Europe federal	3.12
Southern Europe Napoleonic	3.58
Anglo-Saxon	3.75

Source(s): Authors' elaboration

programs), and Group 3: Germany and Italy (42–48 eligible programs). The programs that offer PSFM-related courses in Group 1 are limited to 5 (Cyprus), 4 (Austria) and 3 (Croatia). These programs offer, on average, 1.6, 2.25 and 1 related courses respectively, with the majority being mandatory courses.

The ECTS of these courses appear to diverge significantly and consistently to the size criterion, starting on average from 2.42 in Austria, reaching 5 for Croatia and 8.8 for Cyprus. The proportion of the average PSFM course ECTS compared to the total program ECTS also shows interesting differences: 2% for Austria, 4% for Croatia and 9.4% for Cyprus.

Group 2 includes countries that offer between 9 and 12 MPA and MPM programs. Those programs that offer PSFM-related courses are fewer, ranging between 5 (Portugal), 8 (Spain) and 9 (Greece), which offer on average 2.4, 2.12 and 1.8 relevant courses respectively. In the case of Greece, half of the offered PSFM courses are mandatory, while in Spain, just approximately one-third of the courses are mandatory. The courses' ECTS present differences, being on average 7.2 for Greece, 5.25 for Portugal, and 4.2 for Spain, while the proportion of the average course ECTS compared to the total program ECTS is 7.8%, 4.6% and 7% respectively. Within this group, the number of PSFM courses also follows the size criterion.

The last group contains the two countries that offer the largest number of MPA and MPM programs. Out of the 42 German programs, 71 PSFM-related courses were identified, while out of the 28 Italian programs, 49 courses were found and scrutinized. Although a similar average number of PSFM courses (1.8 for Germany and 1.7 for Italy) is offered, there is a difference in the ECTS of these courses (10.9 for Germany and 8 for Italy), which is further increased when considering the relationship between average course ECTS and total program ECTS (11% for Germany and 6.7% for Italy).

Concerning the course contents, only one MPA program achieved the maximum score of 7 points, indicating comprehensive coverage – at least based on the authors' assessment – of all the relevant PSFM topics.

4.7 Analysis based on status of public sector accounting regimes

With respect to the bases of accounting, the analysis in [Table 2](#) shows that Austria, Portugal and Spain are the most advanced in terms of the application of the accrual basis of accounting. Coherently, for all three countries, the study shows that the public sector financial accounting and reporting sub-competence is among the most covered ones. Against this background it is notable that in Portugal only about half of the MPA and MPM programs offer PSFM-related courses. The earlier analysis has shown that Spain offers relatively less programs, e.g. compared to Italy. In addition, in Spain only about 35% of the offered PSFM-related courses are mandatory, whereas in Austria all offered PSFM courses are mandatory. The analysis of ECTS also showed that in Spain only 4.2 ECTS are granted for PSFM-related courses. The same holds true for Portugal.

For the countries where the accrual basis of accounting is not consistently applied at the central and local government level, one can say that the results are rather heterogeneous. In Germany, for example, it can be highlighted that there is a strong focus on Management accounting and resource management, which is considered a significantly more important sub-competency than Public sector financial accounting and reporting. Interesting to note for Germany is also that the average PSFM courses ECTS to total program ECTS is the highest in all scored programs. Consistent with the status of public sector accounting reforms is the finding for Croatia that Public sector financial accounting and reporting is not considered to be an important sub-competency.

Regardless of the basis of accounting used, Budgeting and Public sector financial accounting and reporting are considered as the core sub-competences across all MPA and MPM programs. Notably, Management accounting and resource management are valued by many countries analyzed. Surprisingly, however, independently from the basis of accounting, auditing is among the least covered sub-competencies.

5. Discussion

As outlined above, only one MPA program achieved the maximum score of 7 points. However, all the PSFM-related courses appear to be focused – with varying coverage – on fundamental topics, such as budgeting, financial management, management accounting and resource management, and public sector financial accounting and reporting. The analysis based on the status of public sector accounting reform showed that the basis of accounting determines MPA and MPM curricula. In all the three countries that apply the accrual basis at the central and at the local government level, the study shows that the Public sector financial accounting and reporting sub-competence is among the most covered sub-competences. For example, the recent reforms in public sector accounting in Cyprus and Greece can explain the high average program scores for these countries. In countries where the accrual basis of accounting is not consistently applied at the central and local government level, the study provides a rather heterogeneous picture. The Management accounting and resource management and Financial Management sub-competences are considered more important in those countries.

A significant gap was identified in providing public finance and GFS knowledge, consolidated financial statements, and auditing. The still blurry definition and scope of public sector financial accounting and reporting in the European context (e.g. [Dasí González et al., 2018](#) or [European Commission, 2024](#)) and the different status of public sector accounting reforms in European member states may represent the reason behind the low coverage of Consolidated financial statements and Public finance and GFS knowledge within MPA and MPM programs. Courses in public finance and GFS are typically covered by economists, and against the background of the importance of statistical accounting within the European public sector financial architecture ([Miranda Sarmiento, 2018](#)). Hence, it would need to be explored further why such courses are offered to a significantly lower degree compared to other courses. The consolidation of financial statements in the public sector remains an underdeveloped area ([Bergmann et al., 2016](#)), which may explain the lack of interest in covering this topic. Given that auditing is an essential part of the budget cycle and plays a major role at central and local government level, it is surprising that the auditing sub-competency is covered in relatively few programs and this consistently in all countries. However, it can be argued that auditing is rather technical and complex ([Cordery and Hay, 2020](#)) and therefore less suitable for the purposes of an MPA and MPM program.

Impressively, only 36 of the 93 analyzed MPA and MPM programs (i.e. 39%) cover more than four (out of seven) of the desired PSFM sub-competences. Consequently, the programs appear not yet ready to provide a complete competence package for future civil servants related to PSFM skills. From a different perspective it could be argued that overly technical subjects may be consciously omitted from MPA or MPM program ([Cohen and Karatzimas, 2022](#)). Furthermore, 46% of MPA and MPM programs provide just one course in the field of PSFM, in which multiple subjects are covered. Based on this evidence, it might be concluded that PSFM subjects are not sufficiently covered in MPA and MPM programs. The example of Cyprus has shown that it is possible to cover a larger number of sub-competencies in a limited number of courses. Our results suggest that curricula of MPA and MPM programs and course contents of PSFM courses shall be reconsidered against the relevant sub-competencies.

The fragmented picture resulting from the analysis reflects the content-related differences in education across countries ([Reichard and Schröter, 2018](#)), and the heterogeneity in PSFM practices ([Lorson et al., 2023](#)). Following [Cohen et al. \(2019\)](#), these differences also stem from how the countries approached and developed public sector accounting reform differently.

Croatia, Spain and Germany are the countries with the lowest average program score. In the case of Croatia, this can possibly be explained by the status of the public sector accounting reforms and the size of the country. [Cohen et al. \(2019\)](#) found for Southern Europe Napoleonic countries that accrual accounting is often not sufficiently embedded in decision-making and accountability disclosure. This observation may explain the low score for Spain. For Germany, the status of public sector accounting reforms ([Mueller-Marqués Berger and Heiling, 2015](#)) is an explanatory variable for the low score. These findings are consistent with an earlier study

that found that the supply side in MPA programs follows the demand side (Gabris *et al.*, 2010). The analysis of the programs by country size adds that the larger the countries the more programs are offered and more diversity in the design of the programs can be found.

The result of this study is an extensive overview of current offerings that provides robust evidence to confirm the lack of PSFM education already pointed out by other scholars (Baylis *et al.*, 2024) even in specialized programs. It also prompts reflections on the existing gaps in the public sector accounting reform process that has been observed in Europe for decades.

The results highlight that, currently, even students aspiring to careers in the public sector are insufficiently prepared for the challenges they face. Before considering the quality of PSFM education (Finley and Waymire, 2013; Schmidt and Guenther, 2016; Sellami and Gafsi, 2020; Pazzi and Svetlova, 2023; Asquer and Krachkovskaya, 2022), it is crucial to address the adequate coverage of PSFM, at least according to the publicly available study plans. Therefore, one of the policy implications of this study is that PSFM coverage in MPA and MPM needs to be increased. Given that MPA and MPM curricula are already quite tight and competitive between the represented fields of study, the authors propose to merge certain PSFM sub-competences into a single course (e.g. integrating consolidated financial statements within a public sector financial accounting and reporting course or to integrate Public finance and GFS in either a Financial management or a Budgeting course).

6. Concluding remarks and suggestions for further research

This study demonstrates that European MPA and MPM programs offer PSFM education in a highly fragmented way. While this heterogeneity is in line with the broader diversity in European public administration traditions, it raises concerns about whether future public sector managers across Europe will be able to develop financial competencies consistent with harmonized PSFM. A deeper discussion could analyze whether such fragmentation is sustainable in light of increasing European integration and the harmonization of public sector accounting in Europe.

Furthermore, the findings consistently showed that, in all countries, auditing remains a weakly covered area in PSFM education despite its critical role in accountability and fiscal oversight. Future research could explore whether educational curricula are lagging behind reform efforts or whether they are responding to political and administrative inertia in implementing these reforms. Finally, the study identified that public finance and Government Finance Statistics (GFS) is also among the least covered sub-competencies. This is particularly surprising given the role of the ESA2010 reporting framework in EU fiscal monitoring. The limited emphasis on these topics suggests a possible disconnect between PSFM education and the European fiscal governance framework.

The application of Falivena *et al.*'s (2023) framework represents a theoretical contribution of this study, marking its first implementation. Our research has highlighted both the framework's strengths — particularly its ability to facilitate a quali-quantitative assessment of PSFM courses — and its limitations, such as the need for additional data to enhance pattern recognition and foster deeper reflection on pedagogical aspects and the scope of accounting practices. Nevertheless, further research could complete the analysis and dig deeper into individual countries to better explore how PSFM education is actually delivered at the postgraduate level, and in professional lifelong learning context. Single country analyses could also incorporate the perspectives of faculty and students to identify the most significant barriers. Still, within countries there is ample space to explore if and how study plans are tailored for different institutional levels. This study intentionally excludes a detailed analysis of the ongoing dynamics of PSFM reforms in the countries included in the sample. Instead, the aim was to outline the extent to which the coverage of the most important sub-competences, as recently updated and outlined from practitioners and scholars (Heiling, 2020; Smith, 2021), is adequately addressed by HEIs. This aspect prompts scholars, HEIs and policy makers to consider whether PSFM education is keeping pace with its private sector counterparts. The renewed importance of the

public sector due to wicked issues like the COVID-19 pandemic, wars among sovereign states, increasing awareness of unsustainable business practices, and tensions in capital markets (which are leading to the impoverishment of citizens) urge a shift in public management education. Finally, further research involving faculty of the courses could provide a more comprehensive understanding of how and to what extent PSFM is delivered.

Despite the acknowledged contributions, the paper still has certain limitations. The primary limitation concerns the fact that the comparative analysis relies only on the examination of course syllabi. Therefore, it cannot be evaluated whether these topics are efficiently or sufficiently covered (for instance, a program scoring seven may barely address all the topics screened). Another important limitation is the use of average figures when comparing the different programs.

At last, the application of the purposive sampling method, while appropriate for the diversity sought in this paper, it may not allow generalizability to contexts out of Europe.

Notes

1. “The European perspective includes a stronger emphasis on research and the use of scientific methods because PA teaching in Europe comprises a wider variety of bachelor and master programs, next to postgraduate programs for midcareer or executive students” (Brans and Coenen, 2016, p. 340).
2. Mexico has only partially adopted the accrual basis of accounting in the public sector (IFAC, 2024).

References

- Adam, B., Brusca, I., Caperchione, E., Heiling, J., Jorge, S. and Manes Rossi, F. (2020), “Are higher education institutions in Europe preparing students for IPSAS?”, *International Journal of Public Sector Management*, Vol. 33 Nos 2/3, pp. 363-378, doi: [10.1108/ijpsm-12-2018-0270](https://doi.org/10.1108/ijpsm-12-2018-0270).
- Ahmed, I. (2019), “Bridging the gap between governmental accounting education and practice”, *Accounting*, Vol. 5 No. 1, pp. 21-30, doi: [10.5267/j.ac.2018.6.003](https://doi.org/10.5267/j.ac.2018.6.003).
- Asquer, A. and Krachkovskaya, I. (2022), “Designing public financial management systems: exploring the use of chatbot-assisted case studies”, *Public Money and Management*, Vol. 42 No. 7, pp. 551-557, doi: [10.1080/09540962.2022.2069412](https://doi.org/10.1080/09540962.2022.2069412).
- Baylis, R.M., Widt, D.D., Helikum, L.J. and Ashworth, R. (2024), “Debate: the lack of public sector accounting education within universities and what is next”, *Public Money and Management*, Vol. 44 No. 5, pp. 347-348, doi: [10.1080/09540962.2024.2333613](https://doi.org/10.1080/09540962.2024.2333613).
- Bergmann, A., Grossi, G., Rauskala, I. and Fuchs, S. (2016), “Consolidation in the public sector: methods and approaches in organisation for economic co-operation and development countries”, *International Review of Administrative Sciences*, Vol. 82 No. 4, pp. 763-783, doi: [10.1177/0020852315576713](https://doi.org/10.1177/0020852315576713).
- Bolton, M.J. and Stolcis, G.B. (2003), “Ties that do not bind: musings on the specious relevance of academic research”, *Public Administration Review*, Vol. 63 No. 5, pp. 626-630, doi: [10.1111/1540-6210.00325](https://doi.org/10.1111/1540-6210.00325).
- Brans, M. and Coenen, L. (2016), “The Europeanization of public administration teaching”, *Policy and Society*, Vol. 35 No. 4, pp. 333-349, doi: [10.1016/j.polsoc.2016.11.005](https://doi.org/10.1016/j.polsoc.2016.11.005).
- Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D. and Walker, K. (2020), “Purposive sampling: complex or simple? Research case examples”, *Journal of Research in Nursing*, Vol. 25 No. 8, pp. 652-661, doi: [10.1177/1744987120927206](https://doi.org/10.1177/1744987120927206).
- Cohen, S., Manes Rossi, F., Caperchione, E. and Brusca, I. (2019), “Local government administration systems and local government accounting information needs: is there a mismatch?”, *International Review of Administrative Sciences*, Vol. 85 No. 4, pp. 708-725, doi: [10.1177/0020852317748732](https://doi.org/10.1177/0020852317748732).
- Cohen, S. and Karatzimas, S. (2022), “New development: public sector accounting education for users—embedding eLearning and technology in teaching”, *Public Money and Management*, Vol. 42 No. 4, pp. 291-293, doi: [10.1080/09540962.2021.1986302](https://doi.org/10.1080/09540962.2021.1986302).

- Cordery, C. (2013), "Does public services accounting belong in the curriculum?", *Pacific Accounting Review*, Vol. 25 No. 1, pp. 101-116, doi: [10.1108/01140581311318986](https://doi.org/10.1108/01140581311318986).
- Cordery, C. and Hay, D. (2020), *Public Sector Audit*, Taylor & Francis Group, New York.
- Dasí González, R.M., Montesinos Julve, V. and Vela Bargues, J.M. (2018), "Towards convergence of government financial statistics and accounting in Europe at central and local levels", *Revista de Contabilidad*, Vol. 21 No. 2, pp. 140-149, doi: [10.1016/j.rcsar.2017.10.001](https://doi.org/10.1016/j.rcsar.2017.10.001).
- Denison, D.V. and Kim, S. (2019), "Linking practice and classroom: nonprofit financial management curricula in MPA and MPP programs", *Journal of Public Affairs Education*, Vol. 25 No. 4, pp. 457-474, doi: [10.1080/15236803.2018.1443690](https://doi.org/10.1080/15236803.2018.1443690).
- Egenolf, R. and Willis, G.W.K. (1983), "Status of public sector accounting education", *Journal of Accounting Education*, Vol. 1 No. 1, pp. 63-69, doi: [10.1016/0748-5751\(83\)90029-5](https://doi.org/10.1016/0748-5751(83)90029-5).
- Etikan, I., Musa, S.A. and Alkassim, R.S. (2016), "Comparison of convenience sampling and purposive sampling", *American Journal of Theoretical and Applied Statistics*, Vol. 5, pp. 1-4, doi: [10.11648/j.ajtas.20160501.11](https://doi.org/10.11648/j.ajtas.20160501.11).
- European Commission (2024), "Reporting on the progress on European public sector accounting standards (EPSAS)", Brussels, available at: <https://data.consilium.europa.eu/doc/document/ST-9170-2024-INIT/en/pdf> (accessed 15 July 2024).
- Falivena, C., Adam, B., Brunelli, S., Heiling, J. and Karatzimas, S. (2023), "New development: a prototype framework to assess the coverage of financial management topics in MPA/MPM programmes", *Public Money and Management*, Vol. 43 No. 7, pp. 755-761, doi: [10.1080/09540962.2023.2241651](https://doi.org/10.1080/09540962.2023.2241651).
- Finley, W. and Waymire, T. (2013), "Thinking practice: iteration, peer review, and policy analysis in a governmental accounting class", *Journal of Accounting Education*, Vol. 31 No. 3, pp. 333-349, doi: [10.1016/j.jaccedu.2013.06.001](https://doi.org/10.1016/j.jaccedu.2013.06.001).
- Frank, H.A. (1992), "Public financial management in the 1990s: new directions for research and pedagogy", *The American Review of Public Administration*, Vol. 22 No. 3, pp. 189-205, doi: [10.1177/027507409202200303](https://doi.org/10.1177/027507409202200303).
- Frank, H.A. and McCollough, J. (1992), "Municipal forecasting practice: 'demand' and 'supply' side perspectives", *International Journal of Public Administration*, Vol. 15 No. 9, pp. 1669-1695, doi: [10.1080/01900699208524781](https://doi.org/10.1080/01900699208524781).
- Gabris, G.T., Nelson, K.L. and Davis, T. (2010), "Demand versus supply: can MPA programs satisfy the need for professional management in local government?", *Journal of Public Administration Education*, Vol. 16 No. 3, pp. 379-399, doi: [10.1080/15236803.2010.12001605](https://doi.org/10.1080/15236803.2010.12001605).
- Grizzle, G.A. (1985), "Essential skills for financial management: are mpa students acquiring the necessary competencies?", *Public Administration Review*, Vol. 45 No. 6, pp. 840-844, doi: [10.2307/975359](https://doi.org/10.2307/975359).
- Grizzle, G.A. and Yu, P.J. (1990), "What is taught as 'public financial management'?", *Public Administration Quarterly*, Vol. 14 No. 2, pp. 173-189.
- Gupta, B., Cheng, R. and Rajan, R.S. (2023), "Green financial and regulatory policies: why are some central banks moving faster than others?", *Global Environmental Politics*, Vol. 23 No. 4, pp. 73-93, doi: [10.1162/glep_a_00716](https://doi.org/10.1162/glep_a_00716).
- Haupt, B., Kapucu, N. and Hu, Q. (2017), "Core competencies in master of public administration programs: perspectives from local government managers", *Journal of Public Affairs Education*, Vol. 23 No. 1, pp. 611-624, doi: [10.1080/15236803.2017.12002272](https://doi.org/10.1080/15236803.2017.12002272).
- Heiling, J. (2020), "Time to rethink public sector accounting education? A practitioner's perspective", *Journal of Public Budgeting, Accounting and Financial Management*, Vol. 32 No. 3, pp. 505-509, doi: [10.1108/jpbafm-05-2020-0059](https://doi.org/10.1108/jpbafm-05-2020-0059).
- Heiling, J. (2024), "Applying the comparative method to accounting for the public sector", in Sandiford, P. and Schührer, S. (Eds), *Exploring Research Methodology and Research Design: Doing Research across the Business Disciplines*, Edward Elgar, London, pp. 174-186.
- Holder, W.W. (1978), "Graduate-level public sector accounting: status and forecast", *The Accounting Review*, Vol. 53 No. 3, pp. 746-751.

- IFAC (2024), "Public sector financial accountability index", available at: <https://www.ifac.org/what-we-do/global-impact-map/public-sector-financial-accountability-index> (accessed 5 November 2024).
- Karatzimas, S., Heiling, J. and Aggestam-Pontoppidan, C. (2022), "Public sector accounting education: a structured literature review", *Public Money and Management*, Vol. 42 No. 7, pp. 543-550, doi: [10.1080/09540962.2022.2066356](https://doi.org/10.1080/09540962.2022.2066356).
- Kioko, S., Marlowe, J., Matkin, D., Moody, M., Smith, D. and Zhao, Z. (2011), "Why public financial management matters", *Journal of Public Administration Research and Theory: J-PART*, Vol. 21 No. 1, pp. 113-124, doi: [10.1093/jopart/muq060](https://doi.org/10.1093/jopart/muq060).
- Kuhlmann, S. and Wollmann, H. (2019), *Introduction to Comparative Public Administration, Administrative Systems and Reforms in Europe*, 2nd ed., Edward Elgar Publishing, Cheltenham, UK and Northampton, MA, USA.
- Lazenby, S. (2010), "The adequacy of MPA course content in preparing local government managers", *Journal of Public Affairs Education*, Vol. 16 No. 3, pp. 337-360, doi: [10.1080/15236803.2010.12001603](https://doi.org/10.1080/15236803.2010.12001603).
- Lee, S. (2020), "Role of MPA education as a professional hub: views from local government managers", *Studies in the Social Sciences*, Vol. 1 No. 1, pp. 23-41.
- Lorson, P.C., Jorge, S. and Hausteine, E. (2023), *European Public Sector Accounting*, 2nd ed., Imprensa da Universidade de Coimbra.
- Maher, C.S., Ebdon, C. and Bartle, J.R. (2020), "Financial condition analysis: a key tool in the MPA curriculum", *Journal of Public Affairs Education*, Vol. 26 No. 1, pp. 4-10, doi: [10.1080/15236803.2020.1717321](https://doi.org/10.1080/15236803.2020.1717321).
- Martin, R.B. and Waymire, T.R. (2017), "Filling the demand for municipal government accountants: the benefits of a governmental and not-for-profit accounting course", *Journal of Accounting Education*, Vol. 40, pp. 43-54, doi: [10.1016/j.jaccedu.2017.04.001](https://doi.org/10.1016/j.jaccedu.2017.04.001).
- McDonald, B., Larson, S., Maher, C., Kavanagh, S., Hunter, K., Goodman, C., ... and Zielke, N. (2024), "Establishing an agenda for public budgeting and finance research", *Public Finance Journal*, Vol. 1 No. 1, pp. 9-28, doi: [10.59469/pfj.2024.15](https://doi.org/10.59469/pfj.2024.15).
- Miranda Sarmento, J. (2018), *Public Finance and National Accounts in the European Context, Financial and Monetary Policy Studies*, Springer International Publishing, Cham.
- Moody, M. and Marlowe, J. (2009), "Recent iterations in the public financial management curriculum: is what practitioners need being taught?", *Journal of Public Affairs Education*, Vol. 15 No. 1, pp. 47-58, doi: [10.1080/15236803.2009.12001542](https://doi.org/10.1080/15236803.2009.12001542).
- Mueller-Marqués Berger, T. and Heiling, J. (2015), "Public sector accounting and auditing in Germany", in Brusca, I., Caperchione, E., Cohen, S. and Rossi, F.M. (Eds), *Public Sector Accounting and Auditing in Europe*, Palgrave Macmillan, London, pp. 93-107.
- Network of Schools of Public Policy, Affairs, and Administration (NASPAA) (2019), "Accreditation Standard for Master's degree programs", available at: <https://www.naspaa.org/sites/default/files/docs/2019-11/NASPAA%20Accreditation%20Standards%20-%202019%20FINAL%20with%20rationale.pdf> (accessed 27 February 2025).
- Neves, F.R., de Aquino, A.C.B. and da Silva, P.B. (2022), "New development: the challenges of public sector accounting education in business schools", *Public Money and Management*, Vol. 42 No. 7, pp. 569-572, doi: [10.1080/09540962.2022.2066820](https://doi.org/10.1080/09540962.2022.2066820).
- Newland, C. (2000), "The public administration review and ongoing struggles for connectedness", *Public Administration Review*, Vol. 60 No. 1, pp. 20-38, doi: [10.1111/0033-3352.00059](https://doi.org/10.1111/0033-3352.00059).
- O'Neill, M.A. (2022), "MPA/MPP programmes and the future of work: does MPA curriculum align with civil service requirements", *Teaching Public Administration*, Vol. 40 No. 3, pp. 388-409, doi: [10.1177/0144739420984503](https://doi.org/10.1177/0144739420984503).
- Pazzi, S. and Svetlova, E. (2023), "NGOs, public accountability, and critical accounting education: making data speak", *Critical Perspectives on Accounting*, Vol. 92, 102362, doi: [10.1016/j.cpa.2021.102362](https://doi.org/10.1016/j.cpa.2021.102362).

- Peddle, M. and Thurmaier, K. (2011), "Reformulating and refocusing a fiscal administration curriculum", *Journal of Public Affairs Education*, Vol. 17 No. 4, pp. 523-542, doi: [10.1080/15236803.2011.12001660](https://doi.org/10.1080/15236803.2011.12001660).
- Purón Cid, G. (2019), "A comparative analysis of public affairs master's programs in the United States and the Latin American region", *Journal of Public Affairs Education*, Vol. 25 No. 4, pp. 495-523, doi: [10.1080/15236803.2018.1489094](https://doi.org/10.1080/15236803.2018.1489094).
- Purtell, R. and Fossett, J. (2010), "Beyond budgeting: public-service financial education in the 21st century", *Journal of Public Affairs Education*, Vol. 16 No. 1, pp. 95-110, doi: [10.1080/15236803.2010.12001586](https://doi.org/10.1080/15236803.2010.12001586).
- Reichard, C. and Schröter, E. (2018), "Education and training in public administration and management in Europe", in Ongaro, E. and Van Thiel, S. (Eds), *The Palgrave Handbook of Public Administration and Management in Europe*, Palgrave Macmillan UK, London, pp. 41-60.
- Rhodes, R.A.W. (2016), "Recovering the craft of public administration", *Public Administration Review*, Vol. 76 No. 4, pp. 638-647, doi: [10.1111/puar.12504](https://doi.org/10.1111/puar.12504).
- Robinson, O.C. (2014), "Sampling in interview-based qualitative research: a theoretical and practical guide", *Qualitative Research in Psychology*, Vol. 11 No. 1, pp. 25-41, doi: [10.1080/14780887.2013.801543](https://doi.org/10.1080/14780887.2013.801543).
- Sanabria-Pulido, P., Rubaii, N. and Purón, G. (2016), "Public affairs graduate education in Latin America: emulation or identity?", *Policy and Society*, Vol. 35 No. 4, pp. 315-331, doi: [10.1016/j.polsoc.2016.11.004](https://doi.org/10.1016/j.polsoc.2016.11.004).
- Saunders, M., Lewis, P. and Thornhill, A. (2023), *Research Methods for Business Students*, Pearson, Essex.
- Schmidt, U. and Guenther, T. (2016), "Public sector accounting research in the higher education sector: a systematic literature review", *Management Review Quarterly*, Vol. 66 No. 4, pp. 235-265, doi: [10.1007/s11301-016-0120-0](https://doi.org/10.1007/s11301-016-0120-0).
- Schwarzer, R., Rochau, U., Saverno, K., Jahn, B., Bornschein, B., Muehlberger, N., Flatscher-Thoeni, M., Schnell-Inderst, P., Sroczynski, G., Lackner, M., Schall, I., Hebborn, A., Pugner, K., Fehervary, A., Brixner, D. and Siebert, U. (2015), "Systematic overview of cost-effectiveness thresholds in ten countries across four continents", *Journal of Comparative Effectiveness Research*, Vol. 4 No. 5, pp. 485-504, doi: [10.2217/cer.15.38](https://doi.org/10.2217/cer.15.38).
- Sellami, Y.M. and Gafsi, Y. (2020), "Public management systems, accounting education, and compliance with international public sector accounting standards in sub-Saharan Africa", *International Journal of Public Sector Management*, Vol. 33 Nos 2/3, pp. 141-164, doi: [10.1108/ijpsm-12-2018-0274](https://doi.org/10.1108/ijpsm-12-2018-0274).
- Sharma, G. (2017), "Pros and cons of different sampling techniques", *International journal of applied research*, Vol. 3 No. 7, pp. 749-752.
- Sinervo, L.-M., Kork, A.A. and Hasanen, K. (2021), "Challenges in curriculum development process aimed at revising the capabilities of future public financial managers", *Teaching Public Administration*, Vol. 41 No. 2, pp. 243-256, doi: [10.1177/01447394211051878](https://doi.org/10.1177/01447394211051878).
- Smith, H.J.M., Purón-Cid, G. and Rosales Arredondo, I. (2021), "Ending corruption and improving accountability: a survey of public finance teaching in Mexico", *International Journal of Public Administration*, Vol. 44 No. 1, pp. 39-49, doi: [10.1080/01900692.2020.1729184](https://doi.org/10.1080/01900692.2020.1729184).
- Sun, J. (2022), "Essential skills for public budgeting and financial management", *Journal of Public Affairs Education*, Vol. 28 No. 3, pp. 290-301, doi: [10.1080/15236803.2022.2031473](https://doi.org/10.1080/15236803.2022.2031473).
- Thai, K.V. (1986), "Public budgeting and financial management curriculum reform: a conceptual framework", *International Journal of Public Administration*, Vol. 8 No. 3, pp. 315-335, doi: [10.1080/01900698608524520](https://doi.org/10.1080/01900698608524520).
- Thai, K.V. and Lynch, T.D. (1982), "Public financial management: a professional education?", *Southern Review of Public Administration*, Vol. 6 No. 3, pp. 307-317.
- Thom, M. (2019), "Teaching public financial management: an integrated approach to a critical subject", *Teaching Public Administration*, Vol. 37 No. 1, pp. 92-106, doi: [10.1177/0144739418810996](https://doi.org/10.1177/0144739418810996).

- Tummalla, K.K. (1982), "Teaching public budgeting", *Southern Review of Public Administration*, Vol. 6 No. 3, pp. 295-306.
- Van der Wal, Z. and Oosterbaan, A. (2013), "Government or business? Identifying determinants of MPA and MBA students' career preferences", *Public Personnel Management*, Vol. 42 No. 2, pp. 239-258, doi: [10.1177/0091026013487123](https://doi.org/10.1177/0091026013487123).
- Waymire, T.R., Sohl, S.N. and Howard, B. (2015), "Public administrators' understanding of external financial reporting: it begins with curriculum", *Journal of Public Affairs Education*, Vol. 21 No. 2, pp. 281-294, doi: [10.1080/15236803.2015.12001833](https://doi.org/10.1080/15236803.2015.12001833).

Further reading

- Jackling, B., Natoli, R., Nuryanah, S. and Ekanayake, D. (2013), "Celebrating 20 years of publication of accounting education: an international journal: 1992-2011", *Accounting Education*, Vol. 22 No. 1, pp. 18-43, doi: [10.1080/09639284.2012.755008](https://doi.org/10.1080/09639284.2012.755008).
- Lawson, R.A., Blocher, E.J., Brewer, P.C., Morris, J.T., Stocks, K.D., Sorensen, J.E., Stout, D.E. and Wouters, M.J.F. (2015), "Thoughts on competency integration in accounting education", *Issues in Accounting Education*, Vol. 30 No. 3, pp. 149-171, doi: [10.2308/iace-51021](https://doi.org/10.2308/iace-51021).
- Ongaro, E., van Thiel, S., Massey, A., Pierre, J. and Wollmann, H. (2018), "Public administration and public management research in Europe: traditions and trends", in Ongaro, E. and Van Thiel, S. (Eds), *The Palgrave Handbook of Public Administration and Management in Europe*, Palgrave Macmillan UK, pp. 11-39, doi: [10.1057/978-1-137-55269-3_3](https://doi.org/10.1057/978-1-137-55269-3_3).
- Wessels, P. (2010), "A critical learning outcome approach in designing, delivering and assessing the IT knowledge syllabus", *Accounting Education*, Vol. 19 No. 5, pp. 439-456, doi: [10.1080/09639280903208534](https://doi.org/10.1080/09639280903208534).
- Wessels, P.L. and Roos, S.-A. (2009), "The development of a conceptual framework for the design, delivery, and assessment of a typical management accounting syllabus", *Accounting Perspectives*, Vol. 8 No. 2, pp. 147-164, doi: [10.1506/ap.8.2.3](https://doi.org/10.1506/ap.8.2.3).
- Zhang, T., Low, L.-C. and Seow, P.-S. (2020), "Using online tutorials to teach the accounting cycle", *The Journal of Education for Business*, Vol. 95 No. 4, pp. 263-274, doi: [10.1080/08832323.2019.1636755](https://doi.org/10.1080/08832323.2019.1636755).

(The Appendix follows overleaf)

Appendix

Table A1. Definition of the sub-competencies in PSFM identified by Heiling (2020) and Smith *et al.* (2021)

Sub-competencies in PSA/PSFM	Courses in that area typically cover
Budgeting	<ul style="list-style-type: none">■ Government budgets■ Budgeting processes■ Planning of anticipated revenue and proposed expenditures■ Allocation of limited resources among potential users■ Monitoring of the overall revenue and expenditure of government
Financial management	<ul style="list-style-type: none">■ Comprises treasury and cash management (e.g. handling and control of cash and securities, supervision of depositories, cash flow projection)■ Short- and long-term investment of funds■ Cost-benefit analysis■ Tax administration■ Borrowing on capital markets and public debt■ Project financing (for both public-public partnerships and public-private partnerships) for construction and public works, and other infrastructures
Public finance and GFS	<ul style="list-style-type: none">■ Welfare economics■ Public goods■ Externalities■ Tax systems and taxation theory■ Inequality and redistribution■ Social insurance and social security■ Government Finance Statistics (SNA, GFS, ESA 2010)
Management accounting and resource management	<ul style="list-style-type: none">■ Evaluating, formulating and realizing social and financial results■ Cost accounting by governments■ Performance measurement and benchmarking■ Management and control of limited resources■ Structure and operation of the management control system■ Management reporting and internal accountability issues
Public sector financial accounting and reporting	<ul style="list-style-type: none">■ Book-keeping■ Financial reporting requirements (national GAAP, IPSAS, etc.)■ Accounting for assets, liabilities, revenues, expenses etc.■ Financial statement analysis
Consolidated financial statements	<ul style="list-style-type: none">■ External accountability and governance issues■ The economic entity concept and the definition of the consolidation perimeter in the public sector■ Consolidation techniques and reporting requirements (national GAAP, IPSAS, etc.)
Auditing	<ul style="list-style-type: none">■ Challenges in preparing consolidated financial statements■ Auditing standards (ISA and ISSAIs) and their requirements■ The concepts of risk and materiality■ Processes and internal controls and their audit■ Project management in auditing■ Audit procedures■ Audit evidence■ Reporting of audit findings

Source(s): Authors' elaboration

Supplementary material

The supplementary material for this article can be found online.

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