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Cent. Eur. J. Public Policy 2023; 17(2): 63–81
DOI: 10.2478/cejpp-2023-0006

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Unveiling management trends in the public sector: A literature review and research agenda

ABSTRACT: *Scholars and practitioners have, for many decades, sought to address management issues related to public sector policies. This study examines the academic research on this sector focused on these topics by conducting an automated computer analysis of 17,928 documents indexed in Scopus and published between 1950 and 2021. Six clusters were identified within this literature: economic growth during crises, reforms for the future, human relations, successful practices, partnerships and public banking services. This study thus systematises the lessons learned over the past decades, thereby contributing to governments' ability to design public policies to meet future challenges and providing tools for dealing with the current coronavirus disease-19 pandemic.*

KEYWORDS: public sector, management, cluster, literature review

RECEIVED 19 January 2023; **ACCEPTED** 30 March 2023.

INTRODUCTION

Public policies design

Central governments are tasked with delivering effective and efficient public services that rely on the general population's fiscal contributions. To achieve economic and social goals, the public authorities enact policies and make use of public organisations and facilities to implement these policies. The latter need to be appropriate for each specific public, environment and time. Political, social, management, financial and environmental events, among others, can trigger policy change, so officials' strategies need to be adjusted to match changing contexts.

Policy design must thus consider the relevant settings, while simultaneously paying attention to which assets are required to implement policies and the liabilities this process will imply. Public policies depend on taxes paid by resident populations. The better the policies are designed and the more reasonable the required fiscal contributions are, the more easily people will understand policies' social and financial beneficial impacts on their lives. In recent years, scholars have been paying more attention to the public sector's tax policies (Altshuler & Goodspeed, 2015), decentralisation policies (Baskaran & Feld, 2013), government finances and accounting issues (Buckwalter et al., 2014).

Public sector challenges

Over the years, management, finance and economic issues have been addressed, and authors have expanded this body of knowledge from different perspectives regarding the public sector's varied challenges in these areas. The coronavirus disease-19 (COVID-19) pandemic's effect on financial markets may mean that governments will have to design new public sector instruments to assist these markets and the real economy's recovery (Chubarova et al., 2020; Kovac et al., 2020).

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DOI: 10.2478/cejpp-2023-0006

Research goal and questions

To ensure sustainable research paths focused on the public sector, new studies should be grounded in previous contributions and follow scholars' suggestions for future research, so that researchers can address the issues that have received inadequate attention.

The present study aims to provide scholars and practitioners with a bird's eye view of the literature on management, finance and economic issues in the public sector. Thus, the public sector organisations are the focus of this research, meaning that their particularities will be addressed in critical analysis, namely, problems of transparency and corruption (Ochrana & Pavel, 2013), as well as their expected collaborative approaches to policymaking (Batory & Svensson, 2019).

This research focuses on answering the following questions:

- RQ1: What thematic clusters stand out in the literature on management topics in the public sector?
- RQ2: What suggestions for future research have been made by authors who have critically analysed public sector studies in the field of management?

To address these questions, an extensive automated analysis of the literature indexed in the Scopus database was conducted and the scientific articles containing the most significant terms in each cluster were examined more closely. The results contribute to the existing knowledge on management, finance, and economic issues in the public sector, bring up future research directions about these topics, and help governments design better public policies.

THEORETICAL BACKGROUND

The public sector comprises various tiers of government (i.e. local, central and intermediate), governmental agencies (e.g. the police force and schools), public companies and non-governmental public sector organisations, which are mainly part of the healthcare sector (van Helden et al., 2008). The organisations in the different government tiers use various accounting tools to organise activities and resources for gaining insights on financial position, operations, debt or cash flows (Nasreen & Baker, 2022). Governments' accounting systems are important for keeping these organisations accountable in terms of not only finances and performance, but also political and social aspects (Boyce & Davids, 2009). These systems may differ across the levels of government according to the engagement they have with, for instance, financial or fiscal sustainability (Claeys et al., 2008). Scholars report that poorly designed accounting systems produce unreliable financial information that prevents officials from making sensible economic decisions and ensuring resources are properly harnessed in the interest of their country's economic development (Rahaman & Lawrence, 2001).

Over the years, multiple scholars have dedicated themselves to expanding the literature on accounting and management topics in public sector contexts. The existing research has contributed to the body of knowledge on public administration or management (Owen Hughes, 1991) by critically analysing public sector accounting rules and exploring new trends in finance (Ball, Heafey, & King, 2002) and economic indicators affected by public policies (Conte & Darrat, 1988). In previous studies addressing public sector management topics, the theoretical framework varies. Table 1 summarises some of these theories.

These theories were used as a framework for understanding how public sector organisations face management challenges, but the examination of literature proves that, as more and more papers are published, disagreements among authors and inconsistencies in the meaning and application of theories occur (Jones et al., 2017). Thus, previous studies of the public sector indicate that more literature syntheses are needed for this field of research. For instance, the public sector literature is characterised as lagging behind in terms of large-scale empirical studies (Trottier, Van Wart, & Wang, 2008), and the existing empirical research has failed to respond to previously reported conflicting evidence in some areas (Wright, 2001).

Although previous studies have identified specific gaps in the public sector literature, a broader review could facilitate a synthesis and evaluation of the existing knowledge generated by scholars and practitioners (Fink, 2019). This review's findings would provide readers with a more solid framework for understanding the currently available information on accounting and management topics within the public sector (Cheraghalikhani, Khoshalhan, & Mokhtari, 2019). Attention also needs to be paid to gaps in research (Besse, Lampe, & Mann, 2020), and a reflective approach to this subject matter should be encouraged (Walliman, 2011). A literature review focused on the areas of accounting and management that can be used by public sector researchers to develop and advance theory, close research gaps and identify topics overlooked by scholars (Nashruddin & Mustaqimah, 2020). The results could thus establish a more solid foundation for the future production of knowledge about the public sector.

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Tab. 1: Main theories addressing public sector management topics

Theory		References
NPM	This theory empathises how the use of entrepreneurial behaviours shape and transform public sector	Funck & Karlsson, 2020; Weiss et al., 1995
Public choice theory	This theory focuses on the decisions that individuals make in government institutions, and it states that the individuals will prioritise their own interests over the public interest and social benefit	Emrah Firidin, 2022; James Buchanan & Gordon Tullock, 1958
Stakeholder theory	Based on this theory, organisations must consider the interests of all stakeholders, not just shareholders or managers. Though stakeholder theory explicitly emerged from private sector, scholars apply it to public sector organisations, namely, in regards to e-government initiatives	Freeman, 1984; Jones et al., 2017; Scholl, 2001
Contingency theory	This theory posits that the effectiveness of management approaches depends on the specific context in which the organisation operates, meaning that internal and external environments will shape decisions to achieve optimal functionality	Lawrence & Jay W. Lorsch, 1967; McGrandle, 2016
Transformational leadership theory	This theory indicates that leadership can inspire and motivate employees to stay committed and achieve common goals	Bass & Bass Bernard, 1985; van der Voet, 2016; Wright & Pandey, 2010

NPM: new public management

For practitioners, reviewing public sector–related literature contributes to improved public administration and policymaking practices. These professionals need assistance to overcome obstacles that prevent them from creating more resilient and agile management systems. Practitioners must also formulate policies that support public sector organisations' ability to respond to massive global challenges such as climate change, demographic trends, and health and well-being promotion (Mazzucato, 2018).

METHODS

In recent decades, a large number of studies have been published in the public sector field. Analyses of this research are needed to identify research topic trends, their evolution across the years and gaps in the literature. A manual analysis, however, would be prohibitively costly and time-consuming and would imply introducing subjectivity into the results and errors while processing such a large volume of data. The present study thus used automated computer analysis methodology to examine the bibliometric data, applying the approaches that had been previously developed by other scholars (Modak et al., 2020).

The data were collected from 17,928 documents indexed in Scopus, which is the largest abstract and citation database of peer-reviewed literature. The entire research strategy is shown in Figure 1.

The data included the different types of documents listed in Table 2. The resulting dataset covered the literature on management, economic and finance topics in the public sector, which were located with the following search query: TITLE-ABS-KEY ("Public sector") AND (LIMIT-TO (SUBJAREA , "BUSI") OR LIMIT-TO (SUBJAREA, "ECON")).

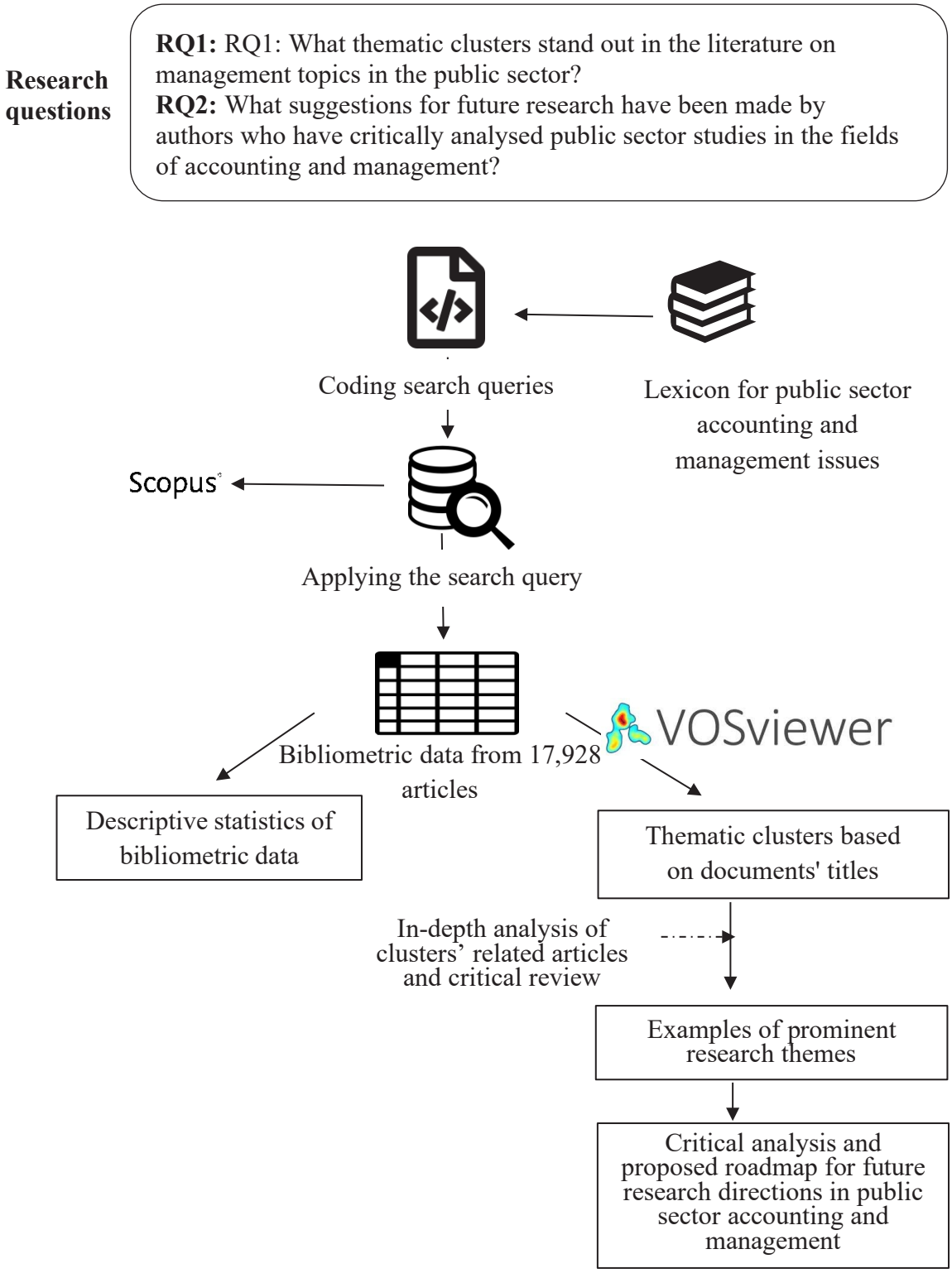
The methodology selected facilitated a descriptive content analysis of the bibliometric data including typology of access, date of publication, number of research team members, number of citations and journal or book in which the document was published. These details are indicators of researchers' productivity and their contributions' influence (Modak et al., 2020) on the specific fields of public sector management, finance and economics. Text mining and cluster mapping techniques were then applied in a co-word analysis of documents' title using VOSviewer, a software frequently used by researchers (Verma & Gustafsson, 2020). A co-word map was created based on the number of links and total link strength between words, as had been done in previous studies (Santos & Laureano, 2022; Shah et al., 2019).

The necessary pre-processing steps in text mining included removing all stopwords (i.e. common terms with no significant meaning in the present research context). In addition, a lexicon was generated of relevant terms about the public sector subjects under

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Fig. 1: Research strategy



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Tab. 2: Absolute frequency of data by document type

Document type	Absolute frequency
Article	14,386
Book chapter	1,159
Conference paper	869
Review	856
Book	350
Editorial	106
Note	99
Conference review	33
Short survey	29
Business article	11
Erratum	10
Letter	6
Retraction	1
Undefined	13

study, so that VOSviewer would treat the terms as fitting within the same domain. The current output revealed clusters emerging throughout the entire body of literature analysed, as well as the significance of the terms within each cluster. The software developed a semantic similarity and association strength matrix calculated based on the co-occurrence of 60% of the most significant terms that occurred more than 25 times in the dataset.

This study's second objective was to systematise suggestions for further public sector research in the area of management. Thus, systematic literature reviews of public sector–related topics (i.e. publications whose title mentions 'literature review') were separated from the remaining publications. To identify the authors' suggestions, the present study used traditional content analysis of the reviews, applying Shah et al.'s (2019) method to systematise main theoretical gaps that academics have been called to address. The study also applies the Khatib et al.'s (2021) analytical framework in regard to the use of VOSviewer algorithm.

FINDINGS AND DISCUSSION

The data analyses produced insights based on the characterisation of relevant documents published from 1950 to 2021, thereby reflecting the bibliometric data available. The co-word map identified six clusters of topics that have been addressed by public sector scholars.

Insights from bibliometric analyses

The number of publications has been consistently increasing over the years (see Figure 2). The oldest year of publication found in the database is 1950, meaning that this was the date when studies started being published. Despite the restrictions imposed by the COVID-19 pandemic, 2020 was when the most research addressing public sector issues was published.

The documents in the dataset are spread across 2,898 different journals and books. Table 3 identifies the publications in which the largest number have appeared (i.e. more than 100 documents). The top two journals have published almost 400 documents each.

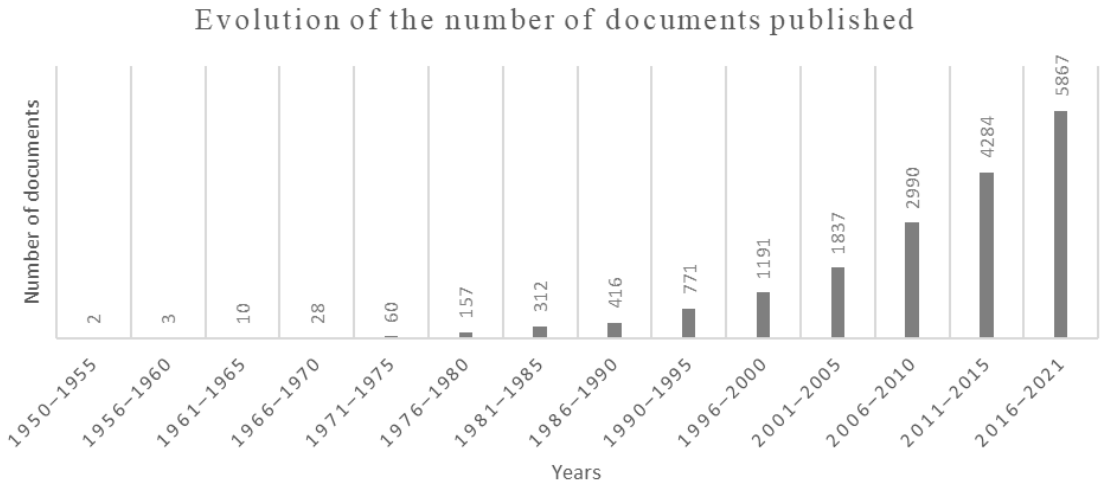
Regarding the contributions' influence, the results show that a total of 287,492 citations refer to the documents in the dataset, which means that these sources were cited an average of more than 16 times each. However, a significant proportion of the documents received only one citation (i.e. 2,034 out of 17,928). The findings indicate that only four publisher agencies owned the 10 most productive journals (Table 4). Four of them were from Elsevier and three from Taylor & Francis.

Most authors were part of a research team, so about 63% of the documents were written by two authors or more. Overall, these scholars generally formed teams composed of two to four authors. The data collected over the last seven decades indicate that collaborations have become a success-driven strategy among scholars in this discipline (Figure 3).

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Fig. 2: Bar chart with the absolute frequency of literature published from 1950 to 2021



Tab. 3: List of journals and books publishing more than 100 documents in the dataset

Journals and books	Number of documents
Public Money and Management	386
International Journal of Public Administration	378
Public Management Review	275
Public Personnel Management	209
Public Administration Review	206
Review of Public Personnel Administration	190
Financial Accountability and Management	170
Proceedings of the ECEG	143
International Public Management Journal	118
World Development	112
Public Choice	111
Journal of Public Administration Research and Theory	107
Applied Economics	101
American Review of Public Administration	101

ECEG: European Conference on e-Government

This success is shown in the average of citations received from the articles published by research teams (mean = 17.4) versus the ones published by single researchers (mean = 13.8). Indeed, the *t*-test for independent samples assuming unequal variances rejected the null hypothesis of the equality of the population means ($p < 0.001$).

Clustering by themes

The co-word map generated by VOSviewer software's automated analysis is shown in Figure 4. VOSviewer's algorithm grouped the themes identified into six clusters. The terms within each cluster are presented in larger circles if the term's frequency in the dataset is higher, based on full counting statistics.

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Tab. 4: List of the 10 most productive journals on management in public sector publication and the most cited documents

Journals and books	Total citations	The most cited document	Publisher
Public Administration Review	15,335	West, 2004	Wiley-Blackwell
Journal of Public Administration Research and Theory	8,528	Dunleavy, 2005	Oxford University Press
Public Management Review	6,355	Voorberg et al., 2015	Taylor & Francis
Public Money and Management	5,588	Dunleavy & Hood, 1994	Taylor & Francis
World Development	5,172	Psacharopoulos, 1994	Elsevier
Research Policy	4,724	Edler & Georghiou, 2007	Elsevier
International Journal of Project Management	3,759	Bing et al., 2005	Elsevier
International Journal of Public Administration	3,671	Smith, 1995	Taylor & Francis
Accounting, Organizations and Society	3,479	Hood, 1995	Elsevier
Journal of Law, Economics, and Organization	3,362	la Porta, 1999	Oxford University Press
Financial Accountability and Management	3,332	Modell, 2004	Wiley-Blackwell

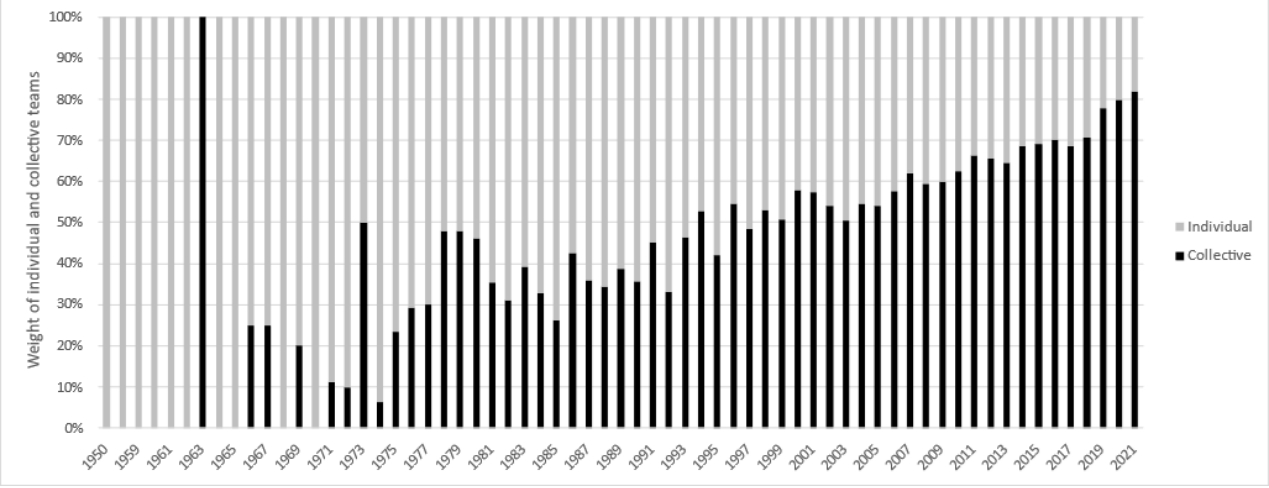


Fig. 3: Trends in management research partnerships in public sector

The six identified clusters within the literature on the public sector can be labelled as follows: economic growth during crises (cluster 1), reforms for the future (cluster 2), human relations (cluster 3), successful practices (cluster 4), partnerships (cluster 5) and public banking services (cluster 6). Table 5 lists the most frequent terms in each cluster and each term's number of occurrences.

Cluster 1 (shown in red in Figure 4) includes 47 terms related to research on economic growth during crises. The studies addressing these topics have investigated determinants of cost inefficiency (Sakata, 2004), developed cost estimation models (Tas & Yaman, 2005) and tested governments' growth models (Spann, 1977). Researchers have found evidence that government policies reduce operational costs, increase the number of firms in the market and create incentives to innovate (Baerlocher, 2021). After investigating public sector external debt's impact on economic growth, Silva (2020) concluded that external debt should be reduced and assigned to tradable sectors.

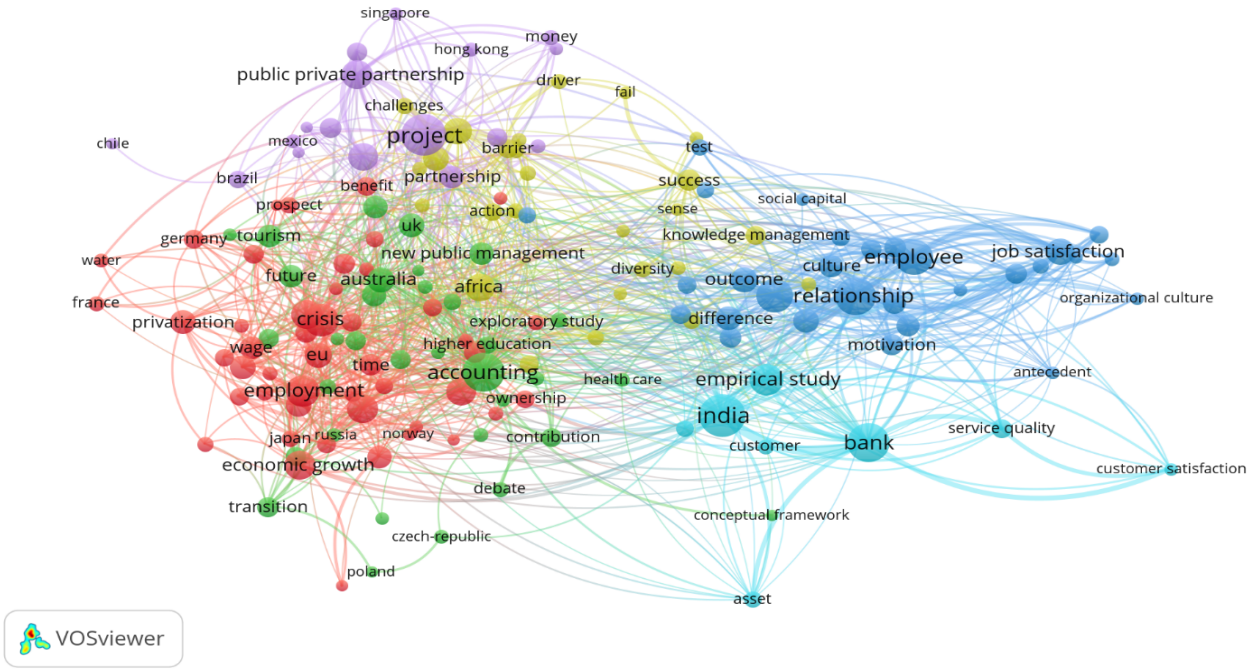
Regarding economic growth goals, Krieckhaus (2002) asserts that public sector efforts are crucial to mobilising financial resources for investment. Investment is overall a key term in this cluster. The studies addressing topics in this cluster have investigated the results of public investment in education (Patrinos, Psacharopoulos & Tansel, 2020; Stern, 2017), research and development (Walwyn, 2007) and innovation (Heher, 2006). Authors have also contributed to identifying return on investment metrics in the public sector (Cuganesan & Lacey, 2011), including efforts to expand the literature on public sector performance measurement.

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Fig. 4: Term view of VOSviewer co-occurrence map

Cluster #	Cluster designation
Cluster 1	Economic growth during crises
Cluster 2	Reforms for the future
Cluster 3	Human relations
Cluster 4	Successful practices
Cluster 5	Partnerships
Cluster 6	Public banking services



Cluster 2 (shown in green in Figure 4) includes 33 terms that fall within research on reforms for the future, in which accounting, response, tourism, new public management, public sector reform, future and transition appear frequently. This cluster covers studies of accounting reforms (Christensen & Rocher, 2021; Cuadrado-Ballesteros & Bisogno, 2021; Jayasinghe et al., 2020) that highlight opportunities in this process (Koeberle, 2005). The authors focusing on topics in this cluster have a special interest in European countries' response strategies (Simonet, 2010), as well as those of Australia (Fraser-Baxter & Medvecky, 2018) and the United Kingdom (Male & Kelly, 1989). For the European nations, scholars have compared governments' different approaches to controlling healthcare costs. Other researchers investigating Australia's policies have highlighted the local media's important role in public and political responses to environmental issues. The final set of authors has discussed public sector clients' organisational responses to value management techniques and their implications for the United Kingdom's construction industry.

Cluster 3 (shown in dark blue in Figure 4) comprises 29 terms covering research in the human relations field. The main studies addressing topics in this cluster have focused on organisational human resources issues, namely, leadership, satisfaction and motivation. Tran, Nguyen and Hoang (2021) investigated the effects of leadership on accountability and public sector financial reporting. Various scholars have studied the cause–effect relationships between human resource management practices, organisational commitment and public organisation employees' satisfaction (Blom, 2020; McGrandle, 2019), providing evidence of policies' role in promoting job satisfaction.

Cluster 4 (shown in yellow in Figure 4) includes 26 terms from research specifically concentrating on Africa's reality, although not always exclusively. African studies have explored government legislation and policies' effectiveness in terms of promoting equal opportunities for men and women to move into senior and top management positions, reporting that no progress has been made and even that women's advancement has actually regressed (Mathur-Helm, 2005). Similarly, analysing policies' effectiveness but with

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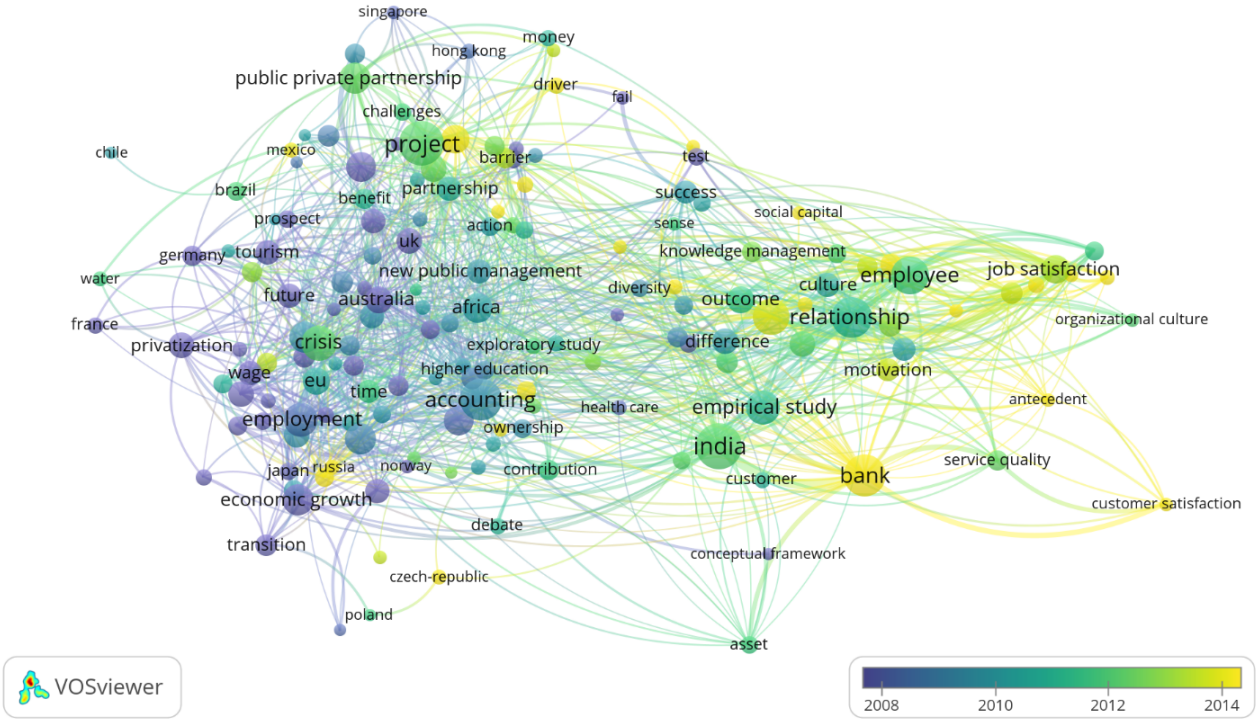
Tab. 5: Clusters' characterisation

Cluster	Most frequent terms	Number of occurrences
Cluster #1: Economic growth during crises	crisis	201
	employment	185
	cost	160
	economic growth	160
	investment	156
	education	153
	European Union (EU)	118
	competition	116
	privatisation	110
	union	108
Cluster #2: Reforms for the future	accounting	291
	Australia	122
	United Kingdom	116
	response	105
	tourism	98
	new public management	97
	public sector reform	97
	future	96
	transition	82
	collaboration	73
Cluster #3: Human relations	relationship	266
	employee	243
	leadership	216
	job satisfaction	136
	outcome	119
	difference	117
	trust	108
	culture	102
	organisational performance	94
	motivation	92
Cluster #4: Successful practices	Africa	145
	adoption	133
	opportunity	111
	success	90
	knowledge management	72
	barrier	70
	action	66
	transparency	61
	diversity	56
	challenges	52
Cluster #5: Partnerships	project	333
	public private partnership	157
	problem	153
	partnership	97
	performance measurement	80
	comparative study	71
	solution	67
	Brazil	60
	money	46
	Hong Kong	40
Cluster #6: Public banking services	India	358
	bank	292
	empirical study	188
	service quality	67
	asset	57
	citizen	51
	customer	45
	customer satisfaction	31

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Fig. 5: Overlay view of VOSviewer co-occurrence map by publication year



respect to anti-corruption practices, Manyaka and Nkuna (2014) conclude that South Africa's public sector faces major challenges that prevent the legislative framework and strategies for combating corruption from being effective. Problems include, among others, inadequate application of legislation, insufficient political will and deployments, and an absence of meritocratic systems.

A substantial number of publications related to this cluster have explored success factors of and barriers to adopting systems and practices, as well as related opportunities. Researchers have detected differences between private and public sector organisations in their perceptions of critical success factors' significance and degree of development regarding the adoption of enterprise resource planning. Variations are apparently due to organisations' ability to tackle problems (Seres, Tumbas, Matkovic, & Sakal, 2019). In their comparative study, Céu Alves and Matos (2013) confirmed that private and public sector organisations find opportunities to engage in enterprise resource planning, through which these entities can obtain real-time information useful to decision-makers and can integrate business applications.

Studies related to this cluster have also provided evidence of the public sector's adoption of knowledge management systems. The technology–organisation–environment framework is considered to be the best conceptual model for investigating adoption of knowledge management systems because it considers organisational and environmental contexts (Alatawi, Dwivedi, & Williams, 2013). When the public and private sectors were compared, knowledge management was found to be perceived as a management philosophy in the public sector. The latter has made more advances in knowledge construction, although public organisations are more dependent on people-based embodied knowledge (McAdam & Reid, 2000).

Cluster 5 (shown in purple in Figure 4) comprises 18 terms from research on partnerships, in particular, strategies for successful public–private partnerships. Academics have explored different data analysis techniques for identifying and characterising success in these partnerships through studies on Egypt's education sector (Helmy, Khourshed, Wahba & El Bary, 2020), South Africa's water and tourism infrastructure projects (Dithebe, Aigbavboa, Thwala & Oke, 2019; Tshehla, 2018) and Ethiopia's road projects (Debela, 2019). In contrast, other investigations have sought to determine why public–private partnerships sometimes fail in the transport sector (Soomro & Zhang, 2016) or for prison contracts (English & Walker, 2004). The results contribute to a better understanding of how both partners' decisions and actions affect their ability to solve the problems arising in this type of partnership.

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Cluster 5 also highlights scholars' analyses of performance measurement based on comparative studies. Previous research in this area has provided different perspectives on performance management's applicability in the public sector (Borst et al., 2014). In addition, studies have concentrated on how practices are borrowed from other management areas (e.g. marketing) (Modell & Wiesel, 2008) or how performance differs around the world with respect to public-funded and development organisations (Gangopadhyay et al., 2018).

Finally, Cluster 6 (shown in light blue in Figure 4) includes eight terms from research on public banking services. These publications are especially common from 2012 onwards following the financial crisis that started with banks' excessive risk-taking. These topics' greater concentration since the crisis is visible in the co-word map overlay (see Figure 5), in which terms in this cluster are mainly in light green and yellow.

The present study's results reveal that this cluster's topics are especially of interest to researchers focused on India's public sector, as shown by the significant number of studies they have published. Authors have assessed the global financial crisis's impact on this country's public sector banks (Bapat, 2012), commercial public sector bank capital and risk (Mohanty & Mahakud, 2018) and efficiency, returns to scale and changes in total factor productivity (Kumar, Charles & Mishra, 2016). Based on their empirical research, Kamble et al. (2011) also concluded that private banks are perceived to be superior in service quality dimensions compared to public sector banks with regard to effectiveness, access and tangibles. However, the latter cited scholars found that the public sector's banks are considered better in terms of price and reliability.

Future paths for research highlighted in the literature

Previous systematic literature reviews of public sector–related studies identified two areas of knowledge: accounting and management. Researchers who reviewed publications on accounting in the public sector have concentrated on, in general, accounting themes and, more specifically, financial accounting and management accounting topics. In the field of management, scholars have underlined the need to expand research on subjects such as citizenship, control, innovation, human resources, marketing and performance. Table 6 presents a systematisation of the topics mentioned by scholars who have suggested more studies of the public sector are needed.

Tab. 6: Suggested future research topics

Area	Subarea	Topics
Accounting	Financial accounting	Non-financial reporting formats Accounting standards Consolidated financial statements
	Management accounting	Insights into performance-based budgeting Management accounting in emerging economies
	Accounting in general	Public value and public sector accounting Accounting in the higher education sector
Management	Citizenship	Co-creation with citizens Organisational citizenship behaviour
	Control	Internal auditing Management control
	Innovation	Barriers to and governance strategies for digital and non-digital open innovation Innovation in developing countries
	Human resources	Talent management Intellectual capital Knowledge management
	Marketing	Branding
	Performance	Critical success factors of business process management Performance measurement From output to outcome measures Critical success factors of continuous improvement

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Accounting

In accounting, scholars have pointed out that researchers need to conduct longitudinal studies of behavioural accounting in the higher education sector (Schmidt & Günther, 2016) and of accounting's creation of public value (Bracci, Papi, Bigoni, Deidda Gagliardo, & Bruns, 2019). A review of the research on non-financial reporting formats in public sector organisations confirmed that studies have failed to address sustainability reporting in the public healthcare sector (Manes-Rossi, Nicolò, & Argento, 2020). The process of adopting the International Public Sector Accounting Standards has also been underresearched. According to Schmidthuber et al. (2020), scholars must examine the adoption of accounting standards cross-nationally, carry out normative research and develop stronger theoretical foundations for studies on this topic. More work in this area could be especially important, given the evidence that accounting standards' implementation alone may not facilitate comparisons of adopters' financial reports (Hermosa del Vasto et al., 2019; Polzer et al., 2021).

In management accounting, cross-country and cross-sector analyses are evidently gaps that should be filled with further research. The findings could be particularly important to those seeking to improve performance-based budgeting in the public sector (Mauro, Cinquini, & Grossi, 2017). Scholars also need to pay attention to management accounting practices in this sector in emerging economies. van Helden & Uddin (2016) suggest that more studies will be necessary to develop a fuller understanding of how these practices are affected by the interplay between public management programmes and political, economic and cultural contexts.

Management

In management research, public sector organisations and co-creation with citizens have been widely studied. Scholars have developed systematised research agendas in this area, including that future studies should focus on conceptual research to explore further the concepts of co-creation, bureaucratic red tape, public leadership and public service motivation (de Geus, Ingrams, Tummers, & Pandey, 2020). In addition, empirical research could offer a better understanding of why co-creation barriers exist and how they can be removed (Baptista, Alves, & Matos, 2020).

Internal auditing and management controls are also areas in which scholars suggest further research is needed. Future studies should include cross-country and cross-market analyses to uncover additional evidence at the international and regional levels and to understand cultural, institutional and demographic characteristics' impacts on these controls (Nerantzidis, Pazarskis, Drogalas, & Galanis, 2020; van der Kolk, 2019). Public sector human resources have also received significant attention as comprehensive literature reviews have already been conducted of the literature on intellectual capital, talent and knowledge management. Franken et al. (2020) and Kravariti & Johnston (2020) call for more research on benchmarking better or worse talent management practices, as well as discussing how and why approaches' success is context driven.

Intellectual capital is another area in which few longitudinal and empirical studies have been carried out or frameworks and models have been tested in specific public sector contexts (Dumay, Guthrie, & Puntillo, 2015). In addition, quite narrow specialisations are required when journals and researchers seek to address knowledge management topics, according to Massaro et al. (2015). The cited authors suggest studies in this field require cooperation among authors from different disciplines to develop a synthesis of the knowledge already published and conduct critical analyses of this information.

Researchers who have investigated branding in the public sector have also called for new frameworks that are more accurate and suitable for dealing with this sector's particular management challenges (Leijerholt, Biedenbach, & Hultén, 2019). Because performance management is high on public sector organisations' agenda in times of decreasing resources, academics have conducted systematic literature reviews to map out paths for future research in this area. Business process management's critical success factors are further characterised as another important but underresearched area, particularly since few studies have been peer reviewed and published in leading journals (Syed, Bandara, French, & Stewart, 2018). Similarly, continuous improvement's critical success factors need more investigation but specifically with quantitative methods, such as in-depth interviews and questionnaires, to develop continuous improvement models for the public sector (Fryer, Antony, & Douglas, 2007).

Finally, regarding sustainability, Dal Mas et al. (2019) identified emerging topics, including strategy and entrepreneurship. The cited authors suggest academics should focus on output and outcome measures in the public sector in less-investigated public services and geographical areas. Long-term sustainability outcomes are also highlighted by these authors as needing additional research (Trireksani et al., 2021).

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CONCLUSION

The literature on economics, finance and accounting in the public sector is already extensive. The current results provide evidence drawn from the bibliometric data collected from the Scopus database that this literature is still expanding, particularly in last two decades. The findings include six thematic clusters of topics addressed in publications: economic growth during crises, reforms for the future, human relations, successful practices, partnerships and public banking services.

This study's results add to the theoretical framework for public sector research in various ways. Based on the comprehensive map generated of academics' contributions published to date, cluster analysis produced a systematic compilation of the main directions in which research has flowed in the past. The findings comprise trends and topics over the years in thousands of documents, without excluding any relevant publications due to data processing constraints. Analysing such a large amount of data was made possible by text mining and visualisation tools that reflect current trends in analyses of unstructured datasets.

Added value

Drawing on the analysis of the literature, we propose an overarching map of the theoretical contributions in management in public sector organisations, which have not been mapped to date. The originality of this literature review lies in its analytical techniques that allowed to cover the content of the entire literature, avoiding providing insights based on only a sample. Thus, this study offers a consolidated view of theoretical and practices in the public sector field. Moreover, the study defines potential avenues towards addressing the sustainability and technological or human resource challenges in public sector.

Implications for theory and practice

The clusters identified in the entire sample of articles on the public sector that address accounting, finance and economics include active and non-active topics, providing scholars with a bird's eye view of this literature. The automatic computer analysis was complemented by traditional content analysis, which was applied to the documents covering topics related to each cluster. This in-depth analysis clarified which problems researchers have addressed in each area, how authors have employed empirical or conceptual approaches and what their main results are.

In addition to making contributions to theory, this study systematised the lessons learned in past decades, thereby assisting governments to design appropriate public policies for future challenges. More specifically, the analyses unveiled a cluster of knowledge about previous crises' impacts on accounting, economics and finance, providing practitioners and policymakers with a bird's eye view of the literature and topics being addressed. These findings can help public sector decision-makers and professionals become more aware of the practices contributing to making administrations and their laws more efficient and effective, as well as opportunities and new ways to implement improvements.

The results comprise a pool of thematic clusters organised, so that they can be critically analysed by public sector practitioners in light of their specific contexts and challenges. This critical reflection could be crucial to finding the best tools to deal with the current COVID-19 pandemic, which involves a complex mix of health, economic and financial issues. Resilience and agility grounded in innovative management practices and accurate accounting systems are critical capacities with regard to responding to not only this crisis, but also the on-going public sector challenges such as climate change, demographic trends and health and well-being promotion.

Future research

This review's findings also provide an outline of suggested paths for future research defined by scholars who reviewed the literature on public sector accounting and management. These systematised guidelines for further studies have implications for future investigations of economics, finance and accounting in the public sector.

More recently, resilience and recovery have become the mottos for organisations and individuals who must deal with the massive challenges arising from the COVID-19 pandemic. However, these terms do not appear frequently in the literature on the public

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sector nor are they linked to any of the clusters identified. Scholars are evidently only now starting to address these topics. Researchers could investigate how accounting can help public sector organisations to increase their agility to change and adapt to crises and risks (Tallaki & Bracci, 2020) and to strengthen these entities' organisational capacity to build more resilient systems (Mazzucato & Kattel, 2020). Also, clusters show research in different public sector tiers (e.g. central government, state government and municipalities) and different issues with the management field, which provide researchers with paths for conducting a more in-depth study of those tiers in a narrowed down perspective.

Finally, the methodology applied in the present study has implications for future reviews as it includes a search query and lexicon of terms referring to the public sector. These tools can be used in future research on the same topic to ensure that the sample of articles collected reflects the relevant body of literature.

Limitations of the study

The present study uses Scopus database for collecting data that is on the basis of the results, which is a large abstract and citation database of peer-reviewed literature used in similar studies. Nonetheless, some authors opt to consider more restricted databases (e.g. Web of Science) to only consider the bibliometric data included in periodicals with the greatest impact on their fields. Moreover, this study does not include grey literature (e.g. books, or thesis) because they are not documents from indexed peer-reviewed periodicals, but others studies consider that those publications may also be considered in some cases to compare the differences between white (peer reviewed) and grey literature (not peer reviewed) (Santos & Laureano, 2021).

Funding

This publication/research was partially supported by Fundação para a Ciência e Tecnologia through project grant FCT UIDB/00315/2020, and by Instituto Politécnico de Setúbal [RAADRI program].

REFERENCES

Alatawi, F. M. H., Dwivedi, Y. K., & Williams, M. D. (2013). Developing a conceptual model for investigating adoption of knowledge management system in Saudi Arabian public sector. *International Journal of Business Information Systems*, *14*(2), 135–163.

Altshuler, R., & Goodspeed, T. J. (2015). Follow the Leader? Evidence on European and US Tax Competition. *Public Finance Review*, *43*(4), 485–504. https://doi.org/10.1177/1091142114527781

Baerlocher, D. (2021). Public employment and economic growth. *Economic Theory*. https://doi.org/10.1007/s00199-020-01333-6

Ball, R., Heafey, M., & King, D. (2002). The private finance initiative and public sector finance. *Environment and Planning C: Government and Policy*, *20*(1), 57–74. https://doi.org/10.1068/c0045

Bapat, D. (2012). Efficiency for Indian public sector and private sector banks in India: Assessment of impact of global financial crisis. *International Journal of Business Performance Management*, *13*(3–4), 330–340. https://doi.org/10.1504/IJBPM.2012.047299

Baptista, N., Alves, H., & Matos, N. (2020). Public Sector Organizations and Cocreation With Citizens: A Literature Review on Benefits, Drivers, and Barriers. *Journal of Nonprofit and Public Sector Marketing*, *32*(3), 217–241. https://doi.org/10.1080/10495142.2019.1589623

Baskaran, T., & Feld, L. P. (2013). Fiscal Decentralization and Economic Growth in OECD Countries: Is There a Relationship? *Public Finance Review*, *41*(4), 421–445. https://doi.org/10.1177/1091142112463726

Bass, B. M., & M. Bass Bernard. (1985). *Leadership and performance beyond expectations*. New York: The Free Press.

Batory, A., & Svensson, S. (2019). The fuzzy concept of collaborative governance: A systematic review of the state of the art. *Central European Journal of Public Policy*, *13*(2), 28–39. https://doi.org/10.2478/cejpp-2019-0008

Besse, M., Lampe, N. M., & Mann, E. S. (2020). Experiences with achieving pregnancy and giving birth among transgender men: A narrative literature review. *Yale Journal of Biology and Medicine*, *93*(4), 517–528.

Bing, L., Akintoye, A., Edwards, P. J., & Hardcastle, C. (2005). The allocation of risk in PPP/PFI construction projects in the UK. *International Journal of Project Management*, *23*(1), 25–35. https://doi.org/10.1016/j.ijproman.2004.04.006

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Cent. Eur. J. Public Policy 2023; 17(2): 63–81
DOI: 10.2478/cejpp-2023-0006

Blom, R. (2020). Mixed Feelings? Comparing the Effects of Perceived Red Tape and Job Goal Clarity on HRM Satisfaction and Organizational Commitment Across Central Government, Government Agencies, and Businesses. *Public Personnel Management*, *49*(3), 421–443. https://doi.org/10.1177/0091026019878204

Borst, R., Lako, C., & de Vries, M. (2014). Is Performance Measurement Applicable in the Public Sector? A Comparative Study of Attitudes among Dutch Officials. *International Journal of Public Administration*, *37*(13), 922–931. https://doi.org/10.1080/01900692.2014.944988

Boyce, G., & Davids, C. (2009). Conflict of interest in policing and the public sector: Ethics, integrity and social accountability. *Public Management Review*, *11*(5), 601–640. https://doi.org/10.1080/14719030902798255

Bracci, E., Papi, L., Bigoni, M., Deidda Gagliardo, E., & Bruns, H. J. (2019). Public value and public sector accounting research: a structured literature review. *Journal of Public Budgeting, Accounting & Financial Management*, *31*(1), 103–136. https://doi.org/https://doi.org/10.1108/JPBAFM-07-2018-0077

Buckwalter, N. D., Sharp, N. Y., Wilde, J. H., & Wood, D. A. (2014). Are State Tax Amnesty Programs Associated with Financial Reporting Irregularities? *Public Finance Review*, *42*(6), 774–799. https://doi.org/10.1177/1091142113499397

Céu Alves, M. do, & Matos, S. I. A. (2013). ERP adoption by public and private organizations--a comparative analysis of successful implementations. *Journal of Business Economics and Management*, *14*(3), 500–519.

Cheraghalikhani, A., Khoshalhan, F., & Mokhtari, H. (2019). Aggregate production planning: A literature review and future research directions. *International Journal of Industrial Engineering Computations*, *10*(2), 309–330. https://doi.org/10.5267/j.ijiec.2018.6.002

Christensen, M., & Rocher, S. (2021). Phantom images in public sector accounting reform: A French study. *Accounting Auditing Control*, *27*(1), 159–187.

Chubarova, T., Maly, I., & Nemec, J. (2020). Public policy responses to the spread of COVID-19 as a potential factor determining health results: a comparative study of the Czech Republic, the Russian Federation, and the Slovak Republic. *Central European Journal of Public Policy*, *14*(2), 60–70. https://doi.org/10.2478/cejpp-2020-0008

Claeys, P., Ramos, R., & Suriñach, J. (2008). Fiscal sustainability across government tiers. *International Economics and Economic Policy*, *5*(1–2), 139–163. https://doi.org/10.1007/s10368-008-0112-1

Conte, M. A., & Darrat, A. F. (1988). Economic Growth and the Expanding Public Sector: A Reexamination. *The Review of Economics and Statistics*, *70*(2), 322–330. https://doi.org/10.2307/1928317

Cuadrado-Ballesteros, B., & Bisogno, M. (2021). Public sector accounting reforms and the quality of governance. *Public Money and Management*, *41*(2), 107–117. https://doi.org/10.1080/09540962.2020.1724665

Cuganesan, S., & Lacey, D. (2011). Developments in Public Sector Performance Measurement: a Project on Producing Return on Investment Metrics for Law Enforcement. *Financial Accountability and Management*, *27*(4), 458–479. https://doi.org/10.1111/j.1468-0408.2011.00533.x

Dal Mas, F., Massaro, M., Lombardi, R., & Garlatti, A. (2019). From output to outcome measures in the public sector: a structured literature review. *International Journal of Organizational Analysis*, *27*(5), 1631–1656. https://doi.org/10.1108/IJOA-09-2018-1523

de Geus, C. J. C., Ingrams, A., Tummers, L., & Pandey, S. K. (2020). Organizational Citizenship Behavior in the Public Sector: A Systematic Literature Review and Future Research Agenda. *Public Administration Review*, 259–270. https://doi.org/10.1111/puar.13141

Debela, G. Y. (2019). Critical success factors (CSFs) of public–private partnership (PPP) road projects in Ethiopia. *International Journal of Construction Management*, *0*(0), 1–12. https://doi.org/10.1080/15623599.2019.1634667

Dithebe, K., Aigbavboa, C. O., Thwala, W. D., & Oke, A. E. (2019). Factor analysis of critical success factors for water infrastructure projects delivered under public–private partnerships. *Journal of Financial Management of Property and Construction*, *24*(3), 338–357. https://doi.org/10.1108/JFMPC-06-2019-0049

Dumay, J., Guthrie, J., & Puntillo, P. (2015). IC and public sector: A structured literature review. *Journal of Intellectual Capital*, *16*(2), 267–284. https://doi.org/10.1108/JIC-02-2015-0014

Dunleavy, P. (2005). New Public Management Is Dead--Long Live Digital-Era Governance. *Journal of Public Administration Research and Theory*, *16*(3), 467–494. https://doi.org/10.1093/jopart/mui057

Dunleavy, P., & Hood, C. (1994). From old public administration to new public management. *Public Money & Management*, *14*(3), 9–16. https://doi.org/10.1080/09540969409387823

Edler, J., & Georghiou, L. (2007). Public procurement and innovation—Resurrecting the demand side. *Research Policy*, *36*(7), 949–963. https://doi.org/10.1016/j.respol.2007.03.003

Emrah Firidin. (2022). Public Administration and Public Choice Theory. In *The Handbook of Public Administration Vol 2*. Livre de Lyon.

English, L., & Walker, R. G. (2004). Risk weighting and accounting choices in public-private partnerships: Case study of a failed prison contract. *Australian Accounting Review*, *14*(33), 62–77. https://doi.org/10.1111/j.1835-2561.2004.tb00230.x

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Cent. Eur. J. Public Policy 2023; 17(2): 63–81
DOI: 10.2478/cejpp-2023-0006

Fink, A. (2019). *Conducting research literature reviews: From the internet to paper*. Sage publications.

Franken, E., Plimmer, G., & Malinen, S. (2020). Paradoxical leadership in public sector organisations: Its role in fostering employee resilience. *Australian Journal of Public Administration*, *79*(1), 93–110. https://doi.org/10.1111/1467-8500.12396

Fraser-Baxter, S., & Medvecky, F. (2018). Evaluating the media's reporting of public and political responses to human-shark interactions in N.S.W, Australia. *Marine Policy*, *97*(September), 109–118. https://doi.org/10.1016/j.marpol.2018.08.020

Freeman, R. (1984). *Strategic Management: A Stakeholder Approach*. Cambridge University Press.

Fryer, K. J., Antony, J., & Douglas, A. (2007). Critical success factors of continuous improvement in the public sector: A literature review and some key findings. *TQM Magazine*, *19*(5), 497–517. https://doi.org/10.1108/09544780710817900

Funck, E. K., & Karlsson, T. S. (2020). Twenty-five years of studying new public management in public administration: Accomplishments and limitations. *Financial Accountability & Management*, *36*(4), 347–375. https://doi.org/10.1111/faam.12214

Gangopadhyay, D., Roy, S., & Mitra, J. (2018). Public sector R&D and relative efficiency measurement of global comparators working on similar research streams. *Benchmarking*, *25*(3), 1059–1084. https://doi.org/10.1108/BIJ-07-2017-0197

Heher, A. D. (2006). Return on investment in innovation: Implications for institutions and national agencies. *Journal of Technology Transfer*, *31*(4), 403–414. https://doi.org/10.1007/s10961-006-0002-z

Helmy, R., Khourshed, N., Wahba, M., & El Bary, A. A. (2020). Exploring critical success factors for public private partnership case study: The educational sector in egypt. *Journal of Open Innovation: Technology, Market, and Complexity*, *6*(4), 1–27. https://doi.org/10.3390/joitmc6040142

Hermosa del Vasto, P., del Campo, C., Urquía-Grande, E., & Jorge, S. (2019). Designing an Accountability Index: A Case Study of South America Central Governments. *Central European Journal of Public Policy*, *13*(2), 1–14. https://doi.org/10.2478/cejpp-2019-0009

Hood, C. (1995). The "new public management" in the 1980s: Variations on a theme. *Accounting, Organizations and Society*, *20*(2–3), 93–109. https://doi.org/10.1016/0361-3682(93)E0001-W

James Buchanan, & Gordon Tullock. (1958). *The Calculus of Consent: Logical Foundations of Constitutional Democracy*. Indianapolis, IN: Liberty Fund, Inc. https://doi.org/10.1007/978-3-031-24967-9_5

Jayasinghe, K., Adhikari, P., Soobaroyen, T., Wynne, A., Malagila, J., & Abdurafiu, N. (2020). Government accounting reforms in Sub-Saharan African countries and the selective ignorance of the epistemic community: A competing logics perspective. *Critical Perspectives on Accounting*, *xxxx*, 102246. https://doi.org/10.1016/j.cpa.2020.102246

Jones, T. M., Wicks, A. C., & Freeman, R. E. (2017). Stakeholder Theory: The State of the Art. In *The Blackwell Guide to Business Ethics* (pp. 17–37). Blackwell Publishing Ltd. https://doi.org/10.1002/9781405164771.ch1

Kamble, S. S., Dhume, S. M., Raut, R. D., & Chaudhuri, R. (2011). Measurement of service quality in banks: a comparative study between public and private banks in India. *International Journal of Services and Operations Management*, *10*(3), 274–293.

Khatib, S. F. A., Abdullah, D. F., Hendrawaty, E., & Elamer, A. A. (2021). A bibliometric analysis of cash holdings literature: current status, development, and agenda for future research. *Management Review Quarterly*. https://doi.org/10.1007/s11301-021-00213-0

Koeberle, S. G. (2004). Public sector reform: *A post-crisis opportunity*. In Thailand beyond the crisis (pp. 203-223). Routledge.

Kovac, M., Elkanawati, A., Gjikolli, V., & Vandenberghe, A.-S. (2020). The Covid-19 pandemic: collective action and European public policy under stress. *Central European Journal of Public Policy*, *14*(2), 47–59. https://doi.org/10.2478/cejpp-2020-0005

Kravariti, F., & Johnston, K. (2020). Talent management: a critical literature review and research agenda for public sector human resource management. *Public Management Review*, *22*(1), 75–95. https://doi.org/10.1080/14719037.2019.1638439

Krieckhaus, J. (2002). Reconceptualizing the developmental state: Public savings and economic growth. *World Development*, *30*(10), 1697–1712. https://doi.org/10.1016/S0305-750X(02)00064-5

Kumar, M., Charles, V., & Mishra, C. S. (2016). Evaluating the performance of indian banking sector using DEA during post-reform and global financial crisis. *Journal of Business Economics and Management*, *17*(1), 156–172. https://doi.org/10.3846/16111699.2013.809785

la Porta, R. (1999). The quality of government. *Journal of Law, Economics, and Organization*, *15*(1), 222–279. https://doi.org/10.1093/jleo/15.1.222

Lawrence, P. R., & Jay W. Lorsch. (1967). *Organization and environment managing differentiation and integration*. Harvard Business School Classics.

Leijerholt, U., Biedenbach, G., & Hultén, P. (2019). Branding in the public sector: A systematic literature review and directions for future research. *Journal of Brand Management*, *26*(2), 126–140.

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Male, S., & Kelly, J. (1989). Organizational responses of public sector clients in Canada to the implementation of value management: lessons for the UK construction industry. *Construction Management and Economics*, *7*(3), 203–216.

Manes-Rossi, F., Nicolò, G., & Argento, D. (2020). Non-financial reporting formats in public sector organizations: a structured literature review. *Journal of Public Budgeting, Accounting \& Financial Management*.

Manyaka, R. K., & Nkuna, N. W. (2014). The phenomenon of corruption in the south african public sector: Challenges and opportunities. *Mediterranean Journal of Social Sciences*, *5*(27), 1572–1580. https://doi.org/10.5901/mjss.2014.v5n27p1572

Massaro, M., Dumay, J., & Garlatti, A. (2015). Public sector knowledge management: A structured literature review. *Journal of Knowledge Management*, *19*(3), 530–558. https://doi.org/10.1108/JKM-11-2014-0466

Mathur-Helm, B. (2005). Equal opportunity and affirmative action for South African women: A benefit or barrier? *Women in Management Review*, *20*(1), 56–71. https://doi.org/10.1108/09649420510579577

Mauro, S. G., Cinquini, L., & Grossi, G. (2017). Insights into performance-based budgeting in the public sector: a literature review and a research agenda. *Public Management Review*, *19*(7), 911–931. https://doi.org/10.1080/14719037.2016.1243810

Mazzucato, M. (2018). Mission-Oriented Research & Innovation in the European Union. In *European Commission*. https://doi.org/10.2777/36546

Mazzucato, M., & Kattel, R. (2020). COVID-19 and public-sector capacity. *Oxford Review of Economic Policy*, *36*(822781), S256–S269. https://doi.org/10.1093/oxrep/graa031

McAdam, R., & Reid, R. (2000). A comparison of public and private sector perceptions and use of knowledge management. *Journal of European Industrial Training*, *24*(6), 317–329. https://doi.org/10.1108/03090590010346424

McGrandle, J. (2016). Understanding Diversity Management in the Public Sector: A Case for Contingency Theory. *International Journal of Public Administration*, 1–12. https://doi.org/10.1080/01900692.2015.1136942

McGrandle, J. (2019). Job Satisfaction in the Canadian Public Service: Mitigating Toxicity With Interests. *Public Personnel Management*, *48*(3), 369–391. https://doi.org/10.1177/0091026018819026

Modak, N. M., Lobos, V., Merigó, J. M., Gabrys, B., & Lee, J. H. (2020). Forty years of computers & chemical engineering: A bibliometric analysis. *Computers and Chemical Engineering*, *141*, 614–629. https://doi.org/10.1016/j.compchemeng.2020.106978

Modell, S. (2004). Performance Measurement Myths in the Public Sector: A Research Note. *Financial Accountability and Management*, *20*(1), 39–55. https://doi.org/10.1111/j.1468-0408.2004.00185.x

Modell, S., & Wiesel, F. (2008). Marketization and performance measurement in Swedish central government: A comparative institutionalist study. *Abacus*, *44*(3), 251–283. https://doi.org/10.1111/j.1467-6281.2008.00262.x

Mohanty, S., & Mahakud, J. (2018). Commercial bank capital and risk in India: Does financial crisis matter? *Cogent Economics and Finance*, *6*(1), 1–23. https://doi.org/10.1080/23322039.2018.1520424

Nashruddin, W., & Mustaqimah, H. A. Z. (2020). Critical Literature Review in Tefl Research: Towards Interdisciplinary Study. *ELT Echo : The Journal of English Language Teaching in Foreign Language Context*, *5*(2), 79. https://doi.org/10.24235/eltecho.v5i2.7393

Nasreen, T., & Baker, R. (2022). Canadian Government Accounting: A Systematic Review. *Copernican Journal of Finance & Accounting*, *11*(2).

Nerantzidis, M., Pazarskis, M., Drogalas, G., & Galanis, S. (2020). Internal auditing in the public sector: a systematic literature review and future research agenda. *Journal of Public Budgeting, Accounting & Financial Management*, *ahead-of-p*(ahead-of-print). https://doi.org/10.1108/JPBAFM-02-2020-0015

Ochrana, F., & Pavel, J. (2013). Analysis of the impact of transparency, corruption, openness in competition and tender procedures on public procurement in the Czech Republic. *Central European Journal of Public Policy*, *7*(2).

Owen Hughes. (1991). Public Administration or Public Management? *Australian Journal of Public Administration*, *51*(3), 386–397. https://doi.org/10.1177/014473948800800102

Patrinos, H. A., Psacharopoulos, G., & Tansel, A. (2020). Private and Social Returns to Investment in Education: the Case of Turkey with Alternative Methods. *Applied Economics*, *53*(14), 1638–1658. https://doi.org/10.1080/00036846.2020.1841086

Polzer, T., Grossi, G., & Reichard, C. (2021). Implementation of the international public sector accounting standards in Europe. Variations on a global theme. *Accounting Forum*, *0*(0), 1–26. https://doi.org/10.1080/01559982.2021.1920277

Psacharopoulos, G. (1994). Returns to investment in education: A global update. *World Development*, *22*(9), 1325–1343. https://doi.org/10.1016/0305-750X(94)90007-8

Rahaman, A. S., & Lawrence, S. (2001). Public sector accounting and financial management in a developing country organisational context: a three-dimensional view. *Accounting Forum*, *25*(2), 189–210. https://doi.org/10.1111/1467-6303.00062

Sakata, M. (2004). A cost frontier approach for estimating the determinants of cost inefficiency in Japanese fire protection management. *Journal of Asian Economics*, *15*(3), 579–590. https://doi.org/10.1016/j.asieco.2004.04.002

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Cent. Eur. J. Public Policy 2023; 17(2): 63–81
DOI: 10.2478/cejpp-2023-0006

Santos, M. R. C., & Laureano, R. M. S. (2021). How has the literature contributed to creating effective risk management policies in nonprofit organisations. *International Journal of Risk Assessment and Management*, *24*(1), 1. https://doi.org/10.1504/IJRAM.2021.119947

Santos, M. R. C., & Laureano, R. M. S. (2022). COVID-19-Related Studies of Nonprofit Management: A Critical Review and Research Agenda. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*. https://doi.org/10.1007/s11266-021-00432-9

Schmidt, U., & Günther, T. (2016). Public sector accounting research in the higher education sector: a systematic literature review. *Management Review Quarterly*, *66*(4), 235–265. https://doi.org/10.1007/s11301-016-0120-0

Schmidthuber, L., Hilgers, D., & Hofmann, S. (2020). International Public Sector Accounting Standards (IPSASs): A systematic literature review and future research agenda. *Financial Accountability and Management*, *February 2019*, 1–24. https://doi.org/10.1111/faam.12265

Scholl, H. J. (2001). Applying Stakeholder Theory to E-government. In *Towards the E-Society* (pp. 735–747). Kluwer Academic Publishers. https://doi.org/10.1007/0-306-47009-8_54

Seres, L., Tumbas, P., Matkovic, P., & Sakal, M. (2019). Critical Success Factors in ERP System Adoption: Comparative Analysis of the Private and the Public Sector. *E+M Ekonomie a Management*, *22*(2), 203–221. https://doi.org/10.15240/tul/001/2019-2-014

Shah, S. H. H., Lei, S., Ali, M., Doronin, D., & Hussain, S. T. (2019). Prosumption: bibliometric analysis using HistCite and VOSviewer. *Kybernetes*, *49*(3), 1020–1045. https://doi.org/10.1108/K-12-2018-0696

Silva, J. (2020). Impact of public and private sector external debt on economic growth: the case of Portugal. *Eurasian Economic Review*, *10*(4), 607–634. https://doi.org/10.1007/s40822-020-00153-2

Simonet, D. (2010). Healthcare reforms and cost reduction strategies in Europe: the cases of Germany, UK, Switzerland, Italy and France. *International Journal of Health Care Quality Assurance*, *23*(5), 470–488. https://doi.org/10.1108/09526861011050510

Smith, P. (1995). On the unintended consequences of publishing performance data in the public sector. *International Journal of Public Administration*, *18*(2–3), 277–310. https://doi.org/10.1080/01900699508525011

Soomro, M. A., & Zhang, X. (2016). Evaluation of the Functions of Public Sector Partners in Transportation Public-Private Partnerships Failures. *Journal of Management in Engineering*, *32*(1), 04015027. https://doi.org/10.1061/(asce)me.1943-5479.0000387

Spann, R. M. (1977). The macroeconomics of unbalanced growth and the expanding public sector: Some simple tests of a model of government growth. *Journal of Public Economics*, *8*(3), 397–404.

Stern, E. (2017). Returns on Educational Investments Are Highest for Early Childhood Interventions. In *Economic Ideas You Should Forget* (pp. 137–138). Springer.

Syed, R., Bandara, W., French, E., & Stewart, G. (2018). Getting it right! Critical success factors of BPM in the public sector: A systematic literature review. *Australasian Journal of Information Systems*, *22*. https://doi.org/10.3127/ajis.v22i0.1265

Tallaki, M., & Bracci, E. (2020). Risk Perception, Accounting, and Resilience in Public Sector Organizations: A Case Study Analysis. *Journal of Risk and Financial Management*, *14*(1), 4. https://doi.org/10.3390/jrfm14010004

Tas, E., & Yaman, H. (2005). A building cost estimation model based on cost significant work packages. *Engineering, Construction and Architectural Management*.

Tran, Y. T., Nguyen, N. P., & Hoang, T. C. (2021). Effects of leadership and accounting capacity on accountability through the quality of financial reporting by public organisations in Vietnam. *Journal of Asia Business Studies*.

Trireksani, T., Zeng, Y., & Djajadikerta, H. G. (2021). Extent of sustainability disclosure by Australian public universities: Inclusive analysis of key reporting media. *Australian Journal of Public Administration*, *80*(4), 830–848. https://doi.org/10.1111/1467-8500.12469

Trottier, T., Van Wart, M., & Wang, X. (2008). Examining the nature and significance of leadership in government organizations. *Public Administration Review*, *68*(2), 319–333. https://doi.org/10.1111/j.1540-6210.2007.00865.x

Tshehla, M. F. (2018). Constraints for successful implementation of Public Private Partnership (PPP) for tourism infrastructure projects. *African Journal of Hospitality, Tourism and Leisure*, *7*(4), 1–10.

van der Kolk, B. (2019). Management control packages: a literature review and guidelines for public sector research. *Public Money and Management*, *39*(7), 512–520. https://doi.org/10.1080/09540962.2019.1592922

van der Voet, J. (2016). Change Leadership and Public Sector Organizational Change. *The American Review of Public Administration*, *46*(6), 660–682. https://doi.org/10.1177/0275074015574769

van Helden, G. J., Johnsen, Å., & Vakkuri, J. (2008). Distinctive research patterns on public sector performance measurement of public administration and accounting disciplines. *Public Management Review*, *10*(5), 641–651. https://doi.org/10.1080/14719030802264366

van Helden, G. J., & Uddin, S. (2016). Public sector management accounting in emerging economies: A literature review. *Critical Perspectives on Accounting*, *41*, 34–62. https://doi.org/10.1016/j.cpa.2016.01.001

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DOI: 10.2478/cejpp-2023-0006

Verma, S., & Gustafsson, A. (2020). Investigating the emerging COVID-19 research trends in the field of business and management: A bibliometric analysis approach. *Journal of Business Research*, *118*(July), 253–261. https://doi.org/10.1016/j.jbusres.2020.06.057

Voorberg, W. H., Bekkers, V. J. J. M., & Tummers, L. G. (2015). A Systematic Review of Co-Creation and Co-Production: Embarking on the social innovation journey. *Public Management Review*, *17*(9), 1333–1357. https://doi.org/10.1080/14719037.2014.930505

Walliman, N. (2011). Writing a Literature Review. In *Social Research Methods* (pp. 182–185).

Walwyn, D. (2007). Finland and the mobile phone industry: A case study of the return on investment from government-funded research and development. *Technovation*, *27*(6–7), 335–341. https://doi.org/10.1016/j.technovation.2007.02.009

Weiss, J. A., Osborne, D., Gaebler, T., & Review, N. P. (1995). Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector. *The Academy of Management Review*, *20*(1), 229. https://doi.org/10.2307/258896

West, D. M. (2004). E-Government and the Transformation of Service Delivery and Citizen Attitudes. *Public Administration Review*, *64*(1), 15–27. https://doi.org/10.1111/j.1540-6210.2004.00343.x

Wright, B. E. (2001). Public-Sector Work Motivation: A Review of the Current Literature and a Revised Conceptual Model. *Journal of Public Administration Research and Theory*, *11*(4), 559–586. https://doi.org/10.1093/oxfordjournals.jpart.a003515

Wright, B. E., & Pandey, S. K. (2010). Transformational Leadership in the Public Sector: Does Structure Matter? *Journal of Public Administration Research and Theory*, *20*(1), 75–89. https://doi.org/10.1093/jopart/mup003

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