

# **THE CONTRIBUTION OF ACCOUNTING TO PERFORMANCE MANAGEMENT: LITERATURE TRENDS AND RESEARCH POTENTIAL**

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## **Abstract**

Performance management is becoming a widely analysed topic in the literature. With this research we aim to analyse the impact of the topic using quantitative research methods. In the same context we will identify existing trends and possible implications of accounting for the performance of entities. In order to achieve the aim of the research we will analyse internationally quoted articles. Data will be collected from the Web of Science database. In the actual analysis of the articles we aim to identify general aspects such as the geographic organisation of the publications, the evolution of interest in the topic for 2010-2020 period. At the end of the research we will come up with conclusions in which we will analyse possible ways of developing the topic through the lens of published articles and research.

## **Keywords**

Accounting, management performance, sustainability practice, performance trends.

## **JEL Classification**

M41, L25, P47.

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## **Introduction**

Both public and private entities have a strong focus on ways of measuring performance, on identifying indicators that would show possible directions for future action. An entity's accounting presents clear and consistent financial statements of its income and expenditure.

Lately we are seeing that entities are expected to move beyond short-term financial focus, and "expand by adopting a long-term approach that would be based on economic, social, and environmental performance and sustainability" (Haffar, et al., 2017, p. 498).

Developing strategies of public and private entities to do "good" and "the transformation of entities into responsible organisations, for which the environment and social aspects

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matter, is increasingly becoming a necessity and not a free choice to lead in future markets" (Busse, 2016, p. 32).

Organisational performance has always exerted a considerable influence on the actions of entities. Consequently, ways and means of accurately measuring this performance are seen as an increasingly important area of research for both organisations and academia. Indeed, "over the last 15 years performance measurement itself has been an important topic among academics in an increasing number of fields"(Follan, et al., 2005). Neely (1999) predicted that between 1994 and 1996 some 3615 articles were published on performance measurement. The same author predicted that in 1996 books on the subject appeared every one to two weeks in the USA alone.

"A wealth of information on performance management has been made available through the efforts of a number of researchers from different research areas" (Marr, 2003). However organisations and academics face a problem of understanding: it has been suggested that the multidisciplinary nature of research is hindering developments in performance management (Marr, et al., 2003, p. 686) (Nelly, 2002, p.214).

Performance management is developing at a rapid rate to combat new organisational realities. Given the struggle for industrial supremacy, the meaning of performance as it is calculated and evaluated is undergoing a transformation in modern business organisations. In this context, it is noted that in the coming period "there is expected to be a significant increase in inter-organisational performance developments - such as supply chain performance management and, more particularly, extended enterprise performance" (Marr, et al., 2003, p. 688). "The extended enterprise is a formation which ensures closer coordination in the development, costing, design and coordination of the production programmes of cooperating independent manufacturing enterprises and associated suppliers" (Jagdev, et al., 1998, p.223). It is also the consistent result of a process of moving away from a traditional vision - with clear boundaries and directions, with relationships that are limited with other organisations, and with a focus only on internal effectiveness and efficiency (Yawar, 2017, p. 627).

With reference to the relationship between financial performance and sustainability, it is assumed that lack of universality is not such a big problem when dealing with a wide range of industries and different entities. However, it remains certain that "a systematization of the literature and the body of literature is necessary at this turning point in the progress of the subject in the literature" (Yawar, 2017, p.638).

The novelty of the research is evidenced by the large number of articles analyzed, articles published between 2010-2020, in WoS indexed journals. The originality of the study is evidenced by the bibliometric analysis of the study, highlighting trends in the literature and the evolution of the subject over time.

The results of the paper are highlighted in the results and discussions section. We analysed the distribution of publications indexed in WoS over time, for the period 2010-2020, according to the first search engine, a general engine that highlights the importance of the topic. For a comprehensive analysis of articles we modified the search engine structure. Thus we analysed the distribution of the identified articles, the

percentage distribution per year, we highlighted the countries that have a particular interest on the topic, deduced from the number of published researches. In the same perspective we analysed - the distribution in journals and the fundamental field of the article. We also highlighted the type of research to identify the ratio of qualitative, quantitative or mixed research.

### **1. Research methodology**

The strategic objective of the literature review is to provide a clear picture of the topic - contributions of accounting to performance management in public administration, with the aim of developing skills to make interpretations, judgements and assessments. We aim to identify new ways in which we can contribute to improving scientific knowledge in accounting and economics in general.

In order to substantiate the topic we will analyse the current state of knowledge. In order to achieve this aim we will analyse the existing international literature. Reviewing the literature helps us to identify what are the trends in the field from a cross-disciplinary perspective, and at the same time we can identify future research potential.

We consider that the present research is a topic of interest in the 21<sup>st</sup> century, specifically the contribution of accounting to performance management in local public administration. We review the scientific literature through a systematic content analysis approach to select relevant publications. A complete bibliographical list of the collected literature has been compiled. We also used descriptive statistics elements such as the number of publications per time unit and the distribution of publications in journals.

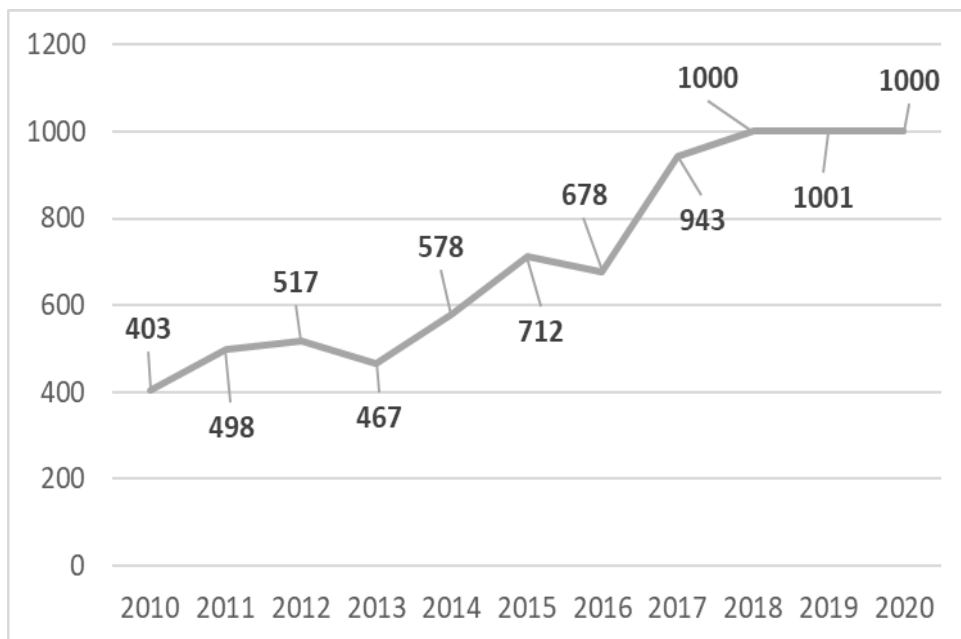
This analysis focuses on the main journals that are indexed in the quality and impact rankings in the Web of Science database. The selection of the highest ranked papers “ensured the quality of the articles because they were the most reviewed and validated, but also was closest to the state of current research” (Podsakoff, 2008, p. 657). We analysed recently published scientific articles, i.e. we focused on the period 2010-2020. The reason for selecting this period is to analyse recent scientific work. In this respect, we believe that during this period interest in the topic of performance has increased among researchers.

The sample of papers was selected from one of the most important databases with a very high impact factor, a database that is considered to be indexed by ISI - Web of Science. In order to obtain as large as possible a sample of articles, and from as wide as possible a geographical area, we felt that research should not be restricted to specific journals or fields.

The initial search was conducted by the words “accounting” and “performance management”. In order to get closer to the subject of the research we considered it necessary to modify the search engine, so we used the words “accounting” and “public performance”. We then selected the articles in order to eliminate those that were not related to the subject under analysis. The bibliometric analysis was based on data exported from the Web of Science - an internationally listed, ISI-indexed database.

## 2. Results and discussion

According to the data exported from the WoS database, search engines with the words “accounting” and “performance management”, words searched in the article title or abstract, returned 7797 results. The distribution of articles is shown in the figure below.



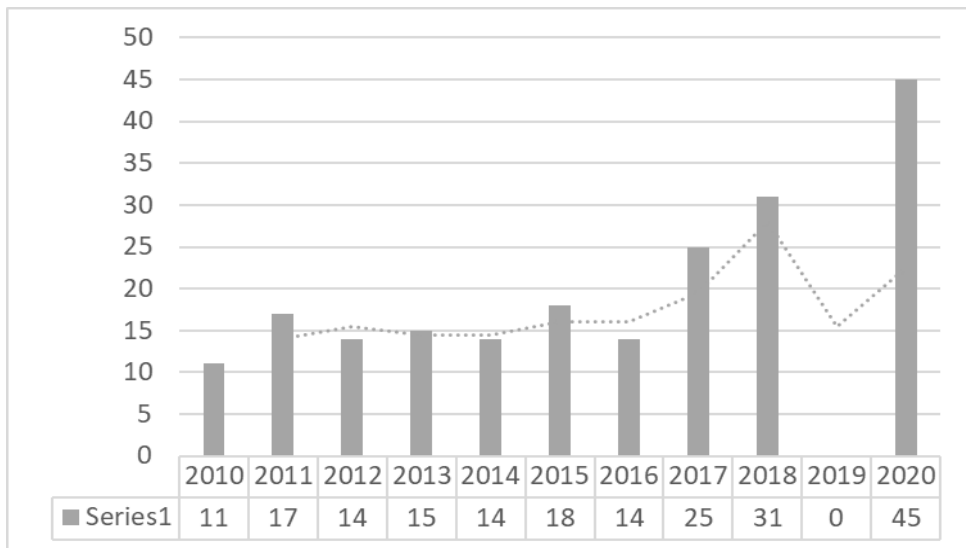
**Figure no. 1: Distribution over time of items exported from WoS for the period 2010-2020**

*Source: Author's projection based on data exported from WoS database (ISI indexed)*

We note that the subject of performance management in accounting is one that has been gaining in importance every year. In 2010, 403 articles were indexed and in the following years until 2018 up to 1000 articles were indexed. In 2018 and 2020 the same number of articles were indexed, i.e. 1000. In 2019 1001 articles were indexed. Out of the total number of articles indexed by the WoS (ISI indexed) database, the fewest articles were registered in the year 2010, i.e. 5.17% of the total number. In the following year we observe an increase of approximately 1%. In 2013 the interest in this topic is increasing, thus registering 6.63% of the total number. In 2014 and 2015 there is an increase of approximately 2%. More than 10% of the total number of articles were registered in the years 2017, 2018, 2019 and 2020. We observe that the number of researches is thus increasing and the subject is becoming more and more scientifically analysed.

Following the analysis of the large number of articles identified by the search engines presented above, we considered it necessary, for a more concrete analysis, to keep the word "accounting" and add "public show". From the second combination we kept the word "performance" because this is the subject we are analysing in the present research, we excluded the word "management" because the management perspective can be identified in any article referring to performance and we introduced the word "public", which will give us more concrete results related to accounting, performance and public administration.

In the quantitative analysis of scientific articles, the final sample consists of 204 articles published in WoS (ISI indexed) between 2010 and 2020.

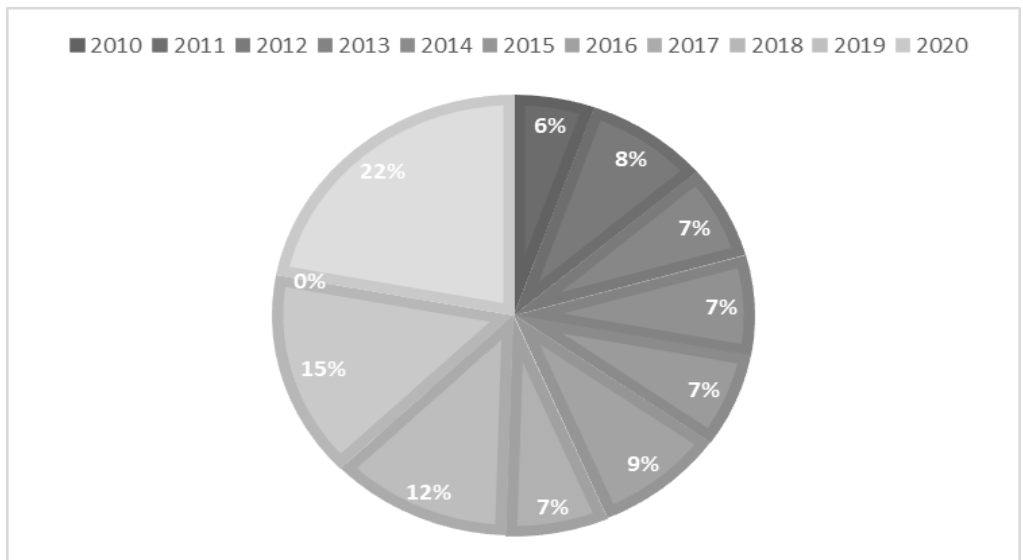


**Figure no. 2: Sample of articles grouped by years of publication - period 2010-2020**  
 Source: Author's projection based on data exported from WoS database (ISI indexed)

In the figure above we see that the subject of performance in public accounting is becoming more and more informational over the years. If in 2010 11 articles were published, in 2015 - 18 articles, in 2020 we identified 45 articles. This aspect makes the subject analysed in the present research a forward-looking one, a current topic that is gaining increasing valence, and becoming a much more important interdisciplinary area. The average number of articles published during this period is 18, minimum 0 articles were published, in 2019, we consider this to be an error in the database, and the next figure is 11, in 2010. The maximum number of articles was reached in 2020 when 45 articles with impact on the topic of accounting and performance in public administration were indexed.

A particular interest in the subject has been emerging since 2017. The explanation for the increased interest throughout this period, especially after 2010, is that in recent times governments, in response to the financial crisis, have had to take economic measures that would ensure financial sustainability in public administration. Thus, the public sector is still undergoing a complex process of reform by ensuring a high degree of administrative, social and economic performance.

The distribution of items in percentages is shown in the figure below.

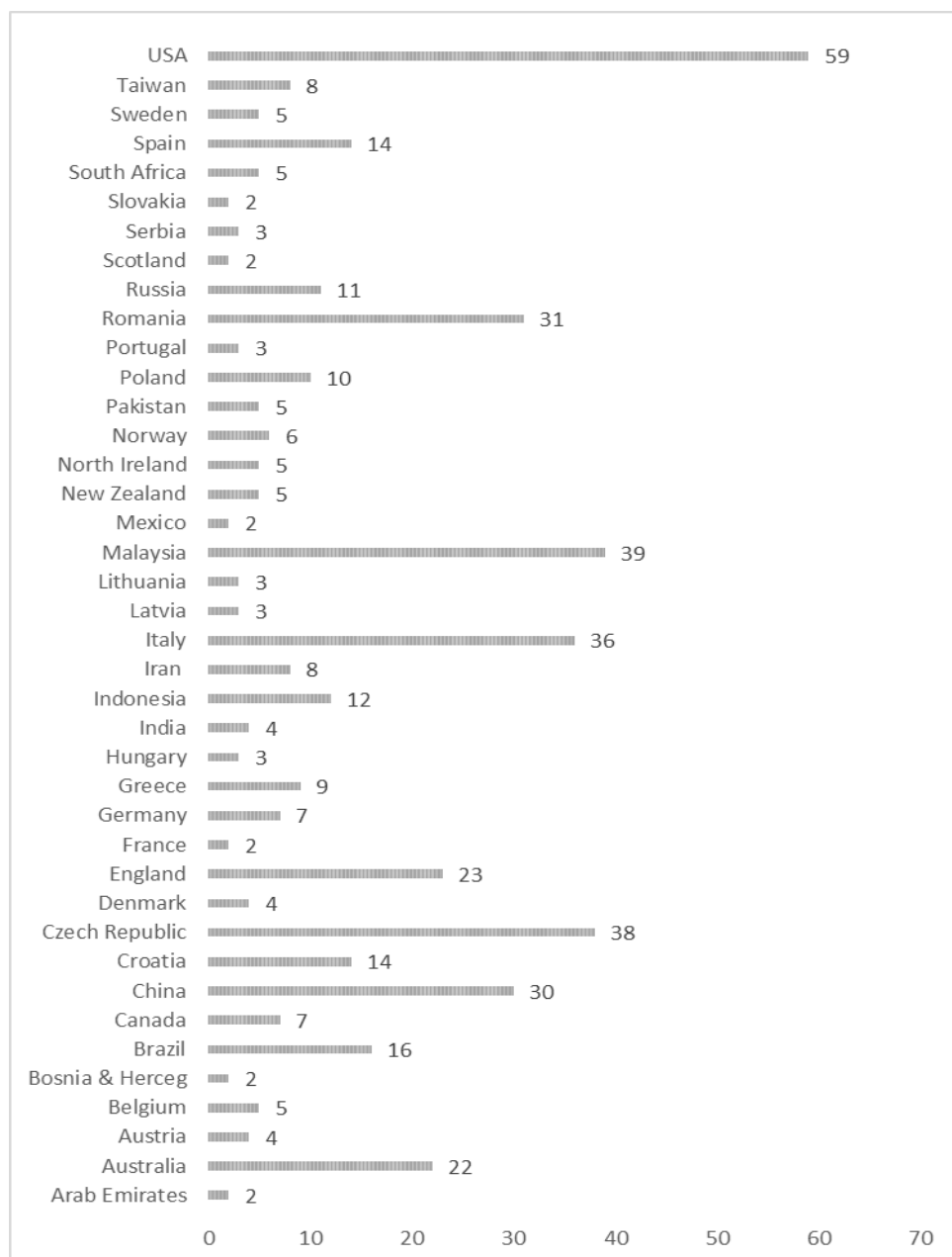


**Figure no. 3: Sample of articles grouped by years of publication in % - period 2010-2020**

*Source: Author's projection based on data exported from WoS database (ISI indexed)*

We note that the distribution in percentages - 22% were recorded in 2020, 15% in 2018, 12% in 2017, 9% in 2015, 7% each in 2016, 2014, 2013, 2012, and 6% in 2010.

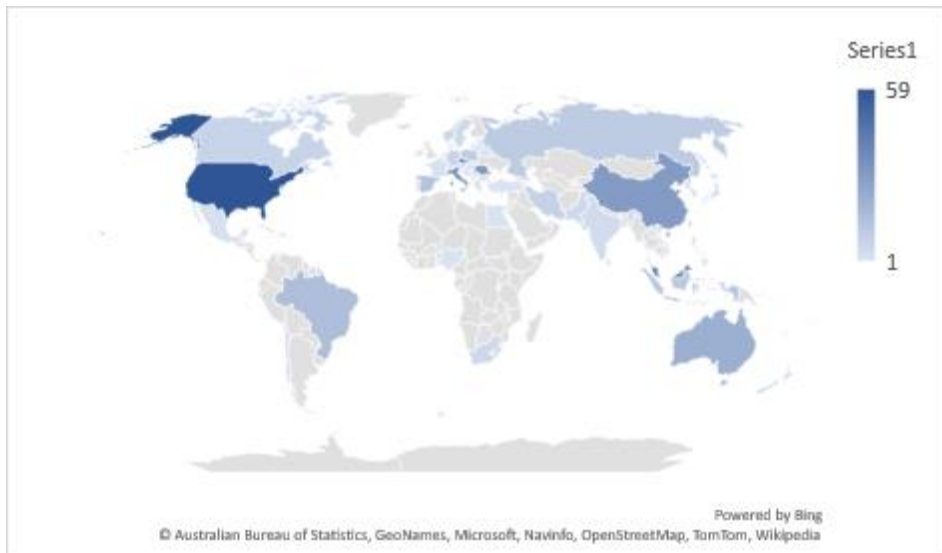
In order to establish the overall status of the research, we analysed selected articles according to the country of origin of the authors. The distribution by country shows the general maturity of the literature worldwide.



**Figure no. 4: Distribution of research interest in the topic from the perspective of article authorship**

Source: Author's projection based on data exported from WoS database (ISI indexed)

The topic of performance in public accounting has been an area of interest from 2010 to 2020 and remains a topic extensively analysed in the literature. Scientific researchers in the US have dominated the literature in this area of research, similarly there is increased interest in Malaysia. From Italy and the Czech Republic there were 36 and 38 interested authors respectively. Increased interest in this topic was also found among researchers from Romania, with 31 authors having articles indexed in the database analysed. They are followed by researchers from China, England and Australia. For a better visualisation, we have the figure below.



**Figure no. 5: Geographical distribution of the number of researchers**

*Source: Author's projection based on data exported from WoS database (ISI indexed)*

Medium interest in the subject is found in Spain, Russia, Poland, Indonesia, Croatia and Brazil. Very low interest in accounting and performance in public administration can be found in Mexico, France, United Arab Emirates, Belarus, Egypt, Japan, Netherlands, Singapore, South Korea and Turkey.

Next, we found it necessary to highlight journals in which more than 3 articles from our sample were published. Below we list the journals in which some of our articles were published.



Table no. 1. Journal distribution of the articles

JOURNAL	NUMBER OF ARTICLES
Advances in management accounting	5
<i>Applied economics, business and development</i>	4
E & m ekonomie a management	4
<i>International accounting and business</i>	4
Public administration review	4
<i>Ciriec-espana revista de economia publica social y cooperativa</i>	3
Creating global competitive economies: a 360-degree approach, vols 1-4	3
<i>Education excellence and innovation management: a 2025 vision to sustain economic development during global challenges</i>	3
International journal of public sector management	3
<i>Journal of intellectual capital</i>	3
Public money & management	3
<i>Public performance &amp; management review</i>	3
Public value management, measurement and reporting	3
<i>Qualitative research in accounting and management</i>	3
Social responsibility journal	3
<i>Strategic management journal</i>	3

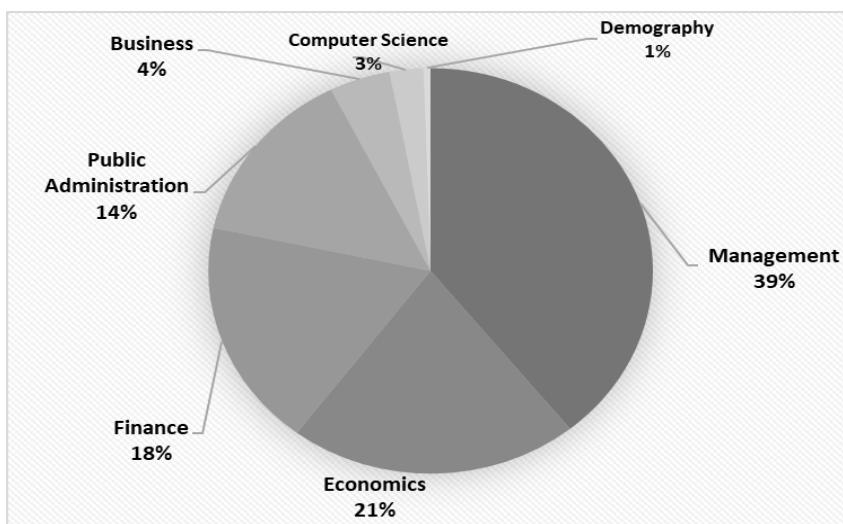
Source: Author's projection based on data exported from WoS database (ISI indexed).

A total of 142 highly reputable journals have published articles on the subject of the contribution of accounting to public administration performance. The journal *Advanced in management accounting* published the most research, i.e. 5 in total. With 4 publications each, the journals have 4: *Applied economics, business, and development*; *E&M Ekonomie a management*; *International accounting and business*; *Public administration review*.

After establishing the sample and the quantitative analysis of the articles we found it necessary to identify the main areas to which the published articles belong. The subject of the contribution of accounting to performance management in public administration is an interdisciplinary research and the approaches themselves can be found in different fields, namely economics, accounting, public administration, social sciences,

administrative sciences, management, etc. In this regard we found it necessary to analyse the main area in the existing research for the same period 2010 - 2020.

In the figure below we can see that, as reiterated above, the topic under analysis is an interdisciplinary research, it can be approached from several perspectives. Following the analysis of the 204 articles, we can see that most research was identified in the field of management 39% or 80 articles. 21% in the field of economics, in concrete 43 articles. The next area of analysis is finance with 18% or 37 articles. Public administration accounts for 14% of the total number of publications analysed, which means 29 researches. The field of business contains 4% or 9 articles. Importantly, we also identified articles in the IT field, namely 5 in number, which means 2%. Next, we also identified one article in the field of demography.



**Figure no. 6: Sample of articles analysed grouped by research area**

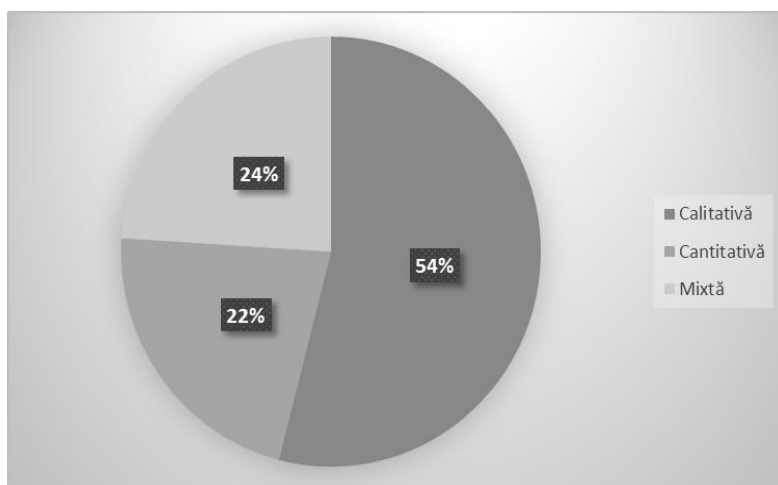
*Source: Author's projection based on data exported from WoS database (ISI indexed)*

In order to identify the methods that have been addressed in the analysis of accounting's contribution to performance management, we considered it important to review the literature from the perspective of the research methods used by researchers. Following an extensive review of selected articles, we grouped the research into research that applied qualitative, quantitative or mixed methods.

By qualitative methods we identify research that takes a descriptive approach to the topic, and presents reviews and analyses of existing literature. By quantitative research we mean work that takes an empirical approach to the reality of the topic under analysis. This type of research involves the application of specific methods and techniques for processing data. Mixed research involves both theoretical approaches to literature review and data analysis.

Following the analysis of the researched topic, the sample of articles, we found that the implications of accounting in performance management were analysed from both quantitative and qualitative perspectives.

In the figure below we see that qualitative research accounts for 54%, quantitative research for 22% and mixed research for 24%. We predominantly identified research that reviews the literature from the perspective of the topic. We consider that qualitative methods were applied in most of the research because it is an interdisciplinary topic analysing sets of indicators, and a sound scientific basis is required for a suitable practical application.



**Figure no. 7: Types of research used in the articles reviewed**

*Source: Author's projection based on data exported from WoS database (ISI indexed)*

## Conclusions

Following the analysis of the articles exported from the WoS (ISI Indexed) database, we identified that the subject of accounting contribution to local government performance management is an important niche that has been widely analysed by researchers over the years. We have identified that the topic has been receiving a lot of attention since 2017, but we cannot neglect research prior to 2017, which has been the basis for future research directions.

The literature review, indexed in one of the best databases, is a strong signal of the importance and topicality of the topic. We have identified the developments in the literature over the period 2010-2020, analysed the 204 research papers that made up the final sample and identified the types of research underpinning the topic. Following what has been reported we consider that the topic is an important one for the accounting area, but we cannot neglect the cross-disciplinary aspect that adds value to the research.

The research indexed in that database, which is high impact, shows us that the subject is still developing. Most articles have been published by researchers from the USA, Malaysia, Czech Republic, Romania, China and Italy. The 7 most important areas of articles were identified as management, economics, finance, public administration, business, IT and demography. Most of the papers had qualitative approaches which means that the subject is continuously developing in the international market and researchers are trying to identify the best theories and methods that can be applied in identifying the degree of management performance from an accounting perspective.

The limitations of the research can be analysed primarily from the perspective of the period for which we conducted the selection engine, i.e. we analysed articles for the period 2010-2020. Certainly articles published before 2010 also have an important intellectual value for the research of the topic. We have shown that research in accounting and performance management has evolved over time. Thus, the research should continue with the actual analysis of the articles and the main concepts related to the research topic.

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