Review

The Association between Audit Quality and Corporate Tax Avoidance. A Bibliometric Review of Literature and Early Evidence on the European Union, from the Perspective of Tax-Related Key Audit Matters Disclosure

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Abstract: In the circumstances of increasing forms of corporate reporting, the relevance of the financial information is slightly decreasing, as the reporting strategies do not provide evidence of the potential deterioration of reported earnings, but rather try to hide managers’ earnings management practices through various impression management techniques and lower financial transparency. Therefore, the external auditors’ role becomes essential in mitigating the information asymmetry. This article aims to study the association between a quality audit and corporate tax avoidance. The research methodology was based on two essential stages. The first stage consisted of reviewing the specialized literature by applying the bibliometric analysis. In the second stage, we resorted to an exploratory analysis of the KAMs disclosed by European Union firms listed in 2016–2021. The study was carried out based on the information provided by the Web of Science and Audit Analytics databases. In accordance with the obtained results, we emphasize that more attention should be paid to the association between the KAMs disclosed by auditors regarding the extended audit reports and the indication of corporate tax avoidance through different tax planning metrics. At the same time, the study underlines that collections of data on KAMs’ disclosures could help specialists create a common body of knowledge about KAMs and how they should be used as communication tools between auditors, management, and stakeholders (including the state). The contribution of this article consists of providing informational support to the tax authorities to understand the main concerns regarding the business environment so that they can come up with supporting public tax policies that should facilitate the mission of companies to determine the tax burden. In addition, it provides researchers with a starting point to further explore issues related to tax avoidance techniques and the role of a financial auditor in limiting them.

Keywords: key audit matters; tax avoidance; deferred taxes; bibliometric analysis

1. Introduction

Recent changes in the business environment have raised awareness concerning the significant changes in the corporate reporting landscape. Both financial statements and corporate disclosures have suffered tremendous changes over the last two decades (Beyer et al. 2010; Leuz and Wysocki 2016). Under the auspices of the global financial crisis, the recent COVID-19 pandemic, or the current crisis of the Russia–Ukraine armed conflict, both managers, shareholders, and other stakeholders have claimed the need for redesigning corporate reporting frameworks and conceptual reporting models, emphasizing the increase in corporate reporting following principles of integrated reporting (Szekely and Brocke 2017) or sustainability reporting (Christensen et al. 2021). No matter managers’ preferences...
on corporate reporting strategies, researchers have underlined various challenges and opportunities in auditors’ role in providing assurance.

In light of increasing risk exposure, more complex business models, and higher economic uncertainty, tax avoidance activity is expected to intensify, especially in times of crisis and firms’ financial constraints (Wang et al. 2020; Saragih and Ali 2021). Therefore, besides firms’ corporate governance mechanisms, the role of external auditors increases (Maydew and Shackelford 2005), with an expected positive outcome in terms of financial reporting quality, as long as auditors prevail in defending their independence, knowing they can provide tax consulting services as well (Chyz et al. 2023), and their focus is sufficiently oriented towards the tax function of the firms audited (Blaufus et al. 2023).

At the same time, to generate an added value for the audit service, many of the authorized auditors opt for issuing an extended audit report that includes the KAM section. Thus, auditors can communicate their perspective on material matters to users of the financial statements. From a fiscal point of view, the auditor’s role in identifying fiscal optimization can be viewed by communicating this aspect through the regulated instrument—key audit matters. Therefore, the communication of as many KAMs as possible can be associated with the quality of the services offered by a financial auditor (Pinto and Morais 2019), and a quality audit can limit the incentives of companies to engage in aggressive tax positions (dos Santos et al. 2021; Gaaya et al. 2017).

The scope of this paper is to address the association between key audit matters (KAMs) and tax avoidance. The disclosure of key audit matters represents a central subject in the accounting and audit literature as it addresses multiple facets of managers’ perspective on corporate financial transparency and possible capital markets misinterpretation of financial information disclosed by annual reports on the circumstances of either poor quality of financial statements or poor communication of audit outcome.

Considering the premises of the firm’s persistent tax planning activity, this study aims to bring preliminary insights into the main concerns related to taxation claimed by financial auditors on auditing financial statements of EU-listed firms through the key audit matters (KAMs). The construction of the conceptual research framework is based on a prior bibliometric literature review addressing the association between financial reporting quality, audit quality, KAMs, tax planning, and tax avoidance. This bibliometric analysis brings insights into the literature, as the problem of KAMs, especially concerning taxation, has not been sufficiently addressed. This analysis is extremely relevant, considering the highly turbulent economic environment, a period characterized by the higher pressure of the state on the business environment through public tax policies and changes to tax regulation aimed at finding public resources for implementing country resilience and recovery projects. Furthermore, this study provides researchers with a starting point to further explore issues related to tax avoidance techniques and the policy promoted by the OECD on fiscal equalization. As the mandatory disclosure of KAMs is relatively recent, there have not been satisfactory results on the cost–benefits analysis of this new audit communication approach, from both the auditor’s and the audited firm’s perspectives. This study is designed to provide early empirical evidence on the main concerns related to taxation in the case of the EU community to bring insights to the literature, as the current research is more focused on the US business environment.

The proposed study was developed in five sections: the first part presents the context of the research, the second section is dedicated to the review of the specialized literature existing up to the present moment, and the following two sections include the research methodology and, respectively, the results obtained. The final section, the fifth, highlights the conclusions resulting from the econometric analysis.

2. Theoretical Background

On the current circumstances of the orientation of business models towards financial resilience, managers are tempted to proceed to an extensive range of solutions of earnings management and impressive management disclosures to provide positive signals to the
capital markets and ensure business financial stability. The main aim is to optimize reported earnings and create premises for an increase in the firm’s market value. The ways managers choose to reach this aim vary, either through accruals-based earnings management, real activities earnings management, or even impression management techniques. In these circumstances, the valuation and stewardship objectives of the information disclosed by corporate reports become extremely useful in analyzing the potential denaturation of the reporting entities’ actual financial position and financial performance. However, the quality of financial information disclosed by corporate reports is highly conditioned by corporate governance mechanisms, industry-specific control frameworks, or the country’s institutional environment (Dechow et al. 2010).

Tax planning activities represent one of the options managers have to optimize reported earnings, this time to reduce tax burden (Wang et al. 2020). Fiscal optimization can also be seen as a response of taxpayers to the ineffective management of public money by government institutions, the lack of investments in community infrastructure, or even an unfair fiscal regulation. In order to mitigate the risk of tax avoidance activities, auditors are assigned an essential role (Maydew and Shackelford 2005). However, the quality of the outcome of external audit activities is a combination of processes, people, and motivation (incentives) (Detzen and Gold 2021), and it is highly dependent on the country’s institutional framework (Kanagaretnam et al. 2016), audit expectation gap (Deepal and Jayamaha 2022), audit market competitiveness (Willekens et al. 2023), auditor characteristics (Knechel Warren Robert et al. 2012; Alareeni 2019), and business model characteristics (Francis 2023), with direct implications on auditors’ liability (Gimbar et al. 2016; Sulcaj 2020). There are plenty of ways auditors can choose to mitigate the audit risk of each audit engagement, and they could differ in each phase of the audit engagement cycle. The disclosure of key audit matters is one option for auditors, which has become mandatory since the end of 2016. As emphasized by ISA 701, auditors are expected to provide greater focus on the communication of the aspects that lead to material deficiencies, which significantly influence the audit report opinion.

The literature highlights several implications of KAM disclosure, such as the effects on investors’ optimal capital allocation (Hoang et al. 2022), the higher awareness of firms’ emerging risks not being sufficiently addressed by the business management (Camacho-Mirano et al. 2023), the financial reporting behavior (Klueber et al. 2018), the internal controls quality (Dee et al. 2021), the accounting corporate policy and professionals judgment (Coram and Wang 2021), the earnings quality (Drake et al. 2021a), the audit quality through the professional audit judgment (Ratzinger-Sakel and Theis 2019; Ma et al. 2020), and the audit litigation costs (Sulcaj 2020). Instead, the insufficiently developed common body of knowledge on KAMs, the time-consuming and negative implications on audit firms’ profitability rates, the complexity of business models, the cross-country tax regulation differences and enforcing institutional framework, or the problem of conflicts of interest in case of audit firms providing tax consulting services as well are some of the main concerns raised by the literature about the disclosure of KAMs.

Researchers Pinto and Morais (2019) state that litigation risk, loss of reputation, auditor-client relationship, the accuracy of accounting standards, and the effect of regulatory authorities’ activities affect the number of KAMs that auditors disclose. In other words, the authors note that the number of KAMs identified in the audit report closely correlates with the risks, transactions, or significant events identified, including the auditor’s reasoning, within an audit mission. Therefore, communicating as many KAMs as possible can be associated with the quality of services provided by a financial auditor.

In their work, Rautiainen et al. (2021) identify two essential opinions of financial auditors on the concept of key audit matters: quality and efficiency. The authors also find that using KAMs can facilitate audit effectiveness and cooperation between auditors and the audited company. Recent results (Zeng et al. 2021) confirm previous findings that KAMs improve audit quality.
Nguyen and Kend (2021) argue that there is little consensus among some stakeholder groups on whether KAM reforms have improved audit quality based on shared perceptions. The results showed that auditors and regulators recognize that KAM disclosures are costly and time-consuming. Big Four auditors indicate that these reforms led to changes mainly in internal consultations and independent reviews, while non-Big Four auditors indicated increased interactions with audit clients.

Abernathy et al. (2021) observe that the provision of non-qualitative audit services expressed by the omission of significant audit aspects in the audit report is positively associated with fiscal risk.

The findings of Gaaya et al. (2017), following the analysis of corporate tax avoidance practices related to family ownership, show that audit quality limits the incentives of family firms to engage in aggressive tax positions, supporting the moderating effect of audit quality on the relationship between family ownership and tax avoidance. Other studies, such as those conducted by dos Santos et al. (2021), establish an interdependent relationship between audit quality and fiscal optimization. The authors conclude that companies with a higher audit quality are less fiscally aggressive. This fact can be explained by implementing new efficient audit procedures that contribute to identifying and understanding the tax optimization behavior of audited companies.

In the case of operations of purchasing goods or contracting services, Gul et al. (2020) noted that tax optimization behavior is more widespread in companies that are provided with low-quality financial audit services.

3. Research Methodology

This study consists of two steps of research. First, we ran a bibliometric literature review to draw up the conceptual research framework. The purpose of this analysis was to emphasize the role of auditors in mitigating the risk of tax avoidance, as the current academic landscape highlights some drastic changes in the relevance of the outcome of financial statement audits. In this way, we plan to provide insights into the phenomenon’s amplitude as reflected in academic research. Additionally, we looked for patterns concerning the interest in specific industries or countries, for which researchers pay greater attention when discussing tax avoidance and the relevance of audit outcomes, including disclosing key audit matters. Nonetheless, we expect to draw up researchers’ perspectives on the relevance of auditors’ characteristics on which the decision to disclose KAMs related to tax accounts depends.

At the same time, we took into account the importance of selecting software that simplifies the process of analyzing data and visualizing the results of quantitative research. In this sense, Biblioshiny 4.0.0.0, a quantitative analysis tool used to build and display bibliometric networks, was used.

The first stage of the research considers data extracted from the Web of Science Core Collection database, the world’s oldest, most widely used, and most authoritative database of research publications and citations (Birkle et al. 2020). The strategy collection for the bibliometric analysis is presented in Figure 1.

The next step relates to the exploratory analysis of the KAMs disclosed by European Union firms listed in 2016–2021. The firms selected have headquarters within the EU community, as EU countries are subject to a more harmonized tax regulation than other regions worldwide. These data are extracted from the Audit Analytics database. In Figure 2 we illustrate the KAMs sample distribution analyzed during the study.
4. Results and Discussions

4.1. Bibliometric Analysis

4.1.1. Keyword Analysis

The analysis of the 121 scientific publications generated a total number of 243 keywords. According to the network of nodes generated by Biblioshiny 4.0.0.0, illustrated in Figure 3, 11 keywords relevant to the analyzed topic are identified, the first keywords are shown in the following:

1. Avoidance—with 30 appearances;
2. Earnings management—with 30 appearances;
3. Quality—with 27 appearances;
4. Aggressiveness—with 19 appearances;
5. Independence—with 14 appearances;

Based on this analysis, we summarize the main accounting treatments addressed through KAMs disclosed and critically analyze the main drivers of the accounting and audit professional judgments. The selected period is based on the fact that we would like to review a potentially significant change in auditors’ behavior concerning the decision to disclose KAMs within the audit reports in light of the COVID-19 pandemic. For this purpose, we review the main areas of tax-related audit observations, with a link to the type of auditors’ opinion and the weight of the total number of KAMs disclosed on the audit reports.

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Within a co-word analysis, keyword relevance is illustrated by linked nodes whose size indicates the degree of importance. Thus, in Figure 3, we identify a relatively small distance between the cluster represented by “tax avoidance” and the clusters “audit quality”, “avoidance”, “auditor-provided tax services”, and “tax”, which highlights a strong relationship between the two analyzed concepts.

Figure 3. Co-occurrence network of keywords.

4.1.2. Analysis of Authors, Affiliations, and Countries

The second part of the quantitative research focuses on identifying and illustrating the relationships between the researchers, the most relevant affiliations, and productive states.

The results (Figure 4) present the spatial distribution of the 178 authors and the links between them regarding research cooperation in a specific field of scientific interest.

We also noticed that the United States of America is the center of the network (with a centrality of 67.06). It is followed by China (with a centrality of 25.19), the United Kingdom of Great Britain (with a centrality of 18.11), and France (with a centrality of 13.79).

The network also illustrates four clusters, encompassing authors from 19 countries. The most significant of them are the first two. Cluster no. 1 (red) indicates a strong collaboration between the United States of America with Canada, France, and the United Kingdom of Great Britain. The next cluster, no. 2 (blue), reflects the intensive international cooperation between China, New Zealand, Australia, and Japan. Finally, the last two
clusters (purple and green), formed by countries such as Tunisia, Saudi Arabia, Thailand, and Malaysia, show the authors’ tendency towards a national collaboration rather than an international one.

Following the analysis of the most relevant affiliations, we find in Table 1, at the level of the tested sample, among the most representative institutions that have studied the link between audit quality and fiscal optimization the following list:

Table 1. Most relevant affiliations.

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Affiliation</th>
<th>Number of Articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Université de Sfax</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>North Carolina State University</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>University of Arizona</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Université de Sousse</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>University of Waterloo</td>
<td>4</td>
</tr>
</tbody>
</table>

The top position in the productivity ranking of publications with the analyzed subject is held by the United States of America. At the same time, we can see from Table 2 that the articles originating from Canada have an increased interest in the scientific environment, which is represented by the highest annual citation average of 27.6.

Table 2. Countries’ scientific production.

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Country</th>
<th>Number of Articles</th>
<th>Average Article Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>USA</td>
<td>11</td>
<td>23.2</td>
</tr>
<tr>
<td>2</td>
<td>Canada</td>
<td>7</td>
<td>27.6</td>
</tr>
<tr>
<td>3</td>
<td>UK</td>
<td>7</td>
<td>24</td>
</tr>
<tr>
<td>4</td>
<td>Tunisia</td>
<td>6</td>
<td>4.6</td>
</tr>
<tr>
<td>5</td>
<td>China</td>
<td>4</td>
<td>3.2</td>
</tr>
</tbody>
</table>

4.2. View on the Most Frequent Issues Disclosed by KAMs

Over the last few years, audit quality has raised numerous discussions among researchers, professionals, users, and standard-setters. However, the complexity of the concept has led to a lack of a unanimous definition, with implications on how it is measured and perceived. Therefore, higher transparency from the auditors’ side is more than welcome, as through KAM disclosure, it is expected that shareholders and stakeholders receive additional information on the auditors’ rationale behind the auditor’s opinion. However, the overall results of our study show that auditors give less attention to tax-related earnings management risks, summing up only approximately 26.78% of KAMs in our dataset. Such a situation is widely spread in the audit services market, justified mainly by auditors’ expertise in this area, especially in countries with highly complex tax regulations (Lynch et al. 2021; Chyz et al. 2023).

In Table 3 we provide the most frequent KAMs disclosed on the audit reports for the period analyzed. The distribution of the KAMs identified suggests that the highest concern for auditors concerning tax accounts is related to deferred income taxes, no matter the period analyzed. Additionally, we underline that those figures are related to the KAMs disclosed in audit reports, which have at least one tax-related KAM mentioned. Therefore, the results emphasize that the accounting treatment for deferred income taxes represents one material aspect out of two that an auditor has to disclose on the audit report.

Table 3. Most frequent issues disclosed by KAMs.

<table>
<thead>
<tr>
<th>KAM</th>
<th>Number of KAMs</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deferred income taxes</td>
<td>26.78%</td>
<td>46%</td>
</tr>
<tr>
<td>Other KAMs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Special attention is given by auditors to the disclosure of the uncertainty of tax positions. As noted already, a significant cause of material aspects revealed by auditors concerning tax accounting treatments is the unclear regulation that allows interpretation or does not provide sufficient practical guidance on managing exceptional cases (Saragih and Ali 2021). For this purpose, IFRS 23 was issued to support companies in disclosing their tax assets or liabilities by emphasizing the impact of different uncertain tax treatments, which indicate uncertainty on the tax authority’s acceptance. However, the application of this standard raises multiple concerns involving professional judgment, which is highly subjective in many cases, such as assumptions on the probability that tax authorities do not accept the tax treatment, which is the tax base considered, or how the corporate accounting policy addressed the changes in initial assumptions (Ernst & Young 2021). In those circumstances, the list of possible conflicting opinions between companies and tax authorities concerning different accounting treatments with implications on the tax base is long, reminding some generic areas, such as corporate transfer price policy, debts international shifts, or corporate inversions, which are specific channels for tax avoidance (Wang et al. 2020).

In Figure 5 we represent the main categories of KAMs identified, but this time associate them with the type of auditor opinion to assess if a possible link between them exists. Overall, the representation suggests that most of the KAMs identified are associated with an unqualified auditor opinion. However, it is interesting that the KAMs related to error corrections or preparation of financial statements are less likely to be associated with an unqualified auditor opinion, which could indicate possible robust and functional corporate accounting and financial reporting processes. Instead, the data should raise awareness among auditors and auditees as well, such as topics related to deferred taxes,
accounting estimates, internal controls, or changes in accounting policies as they determine a high probability of unqualified auditor opinion. However, in times of crisis, such as the COVID-19 pandemic, tax-related accounting treatments are expected to be subject to higher uncertainty (Saragih and Ali 2021; IASB 2021; IFAC 2020).

In Figure 6 we represent the average number of KAMs disclosed per audit report. The results show a slightly higher average of KAMs per the report in the case of audit reports addressing at least one tax-related topic, compared with the audit reports that do not address any such type of KAM, no matter the period analyzed. Moreover, we observe a significant number of tax-related KAMs, which exceeds 68% of the total number of KAMs disclosed. However, in those circumstances, the number of KAMs per audit report is relatively small, which could be possible because of potential conflicts of interest, as many auditors offer auditees not only financial audit services but tax planning consulting services as well, which generally leads to more effective tax planning efforts and to auditors’ independence deterioration and lower transparency on the material aspects identified during audit missions (Chyz et al. 2023).

In Table 4 we summarize the information on KAMs analyzed, clustered on the country level. These data show an expected difference in the average number of KAMs disclosed per audit report, differentiating between Anglo-Saxon and continental accounting systems. Therefore, countries like the United Kingdom or Ireland show an average number of KAMs disclosed per report. The leading cause resides in the weaker strength between accounting profit and tax-based profit; therefore, lower interest is shown for tax-related KAMs from shareholders, tax authorities, and other stakeholders. Instead, in the circumstances of less connected accounting and tax regulation, the role of professional judgment and auditors’ “quality” increases dramatically, showing an inverse relationship between auditors’ quality and the level of auditees’ tax aggressiveness (Kanagaretnam et al. 2016; Lynch et al. 2021).
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Figure 5. Correspondence between KAMs disclosed and auditor opinion.

Figure 6. Evolution of KAMs per audit report by period analyzed.

Table 4. Analysis of tax-related KAMs by country.

<table>
<thead>
<tr>
<th>Country</th>
<th>Total KAMs Disclosed</th>
<th>Number of Firms</th>
<th>KAMs Per Audit Report</th>
<th>Total Tax-Related KAMs Per Audit Report</th>
<th>% Tax-Related KAMs Per Audit Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>1,740</td>
<td>996</td>
<td>1.747</td>
<td>1.033</td>
<td>59.37</td>
</tr>
<tr>
<td>France</td>
<td>1,040</td>
<td>367</td>
<td>2.834</td>
<td>763</td>
<td>73.37</td>
</tr>
<tr>
<td>Germany</td>
<td>353</td>
<td>291</td>
<td>1.213</td>
<td>295</td>
<td>73.57</td>
</tr>
<tr>
<td>Netherlands</td>
<td>382</td>
<td>242</td>
<td>1.579</td>
<td>243</td>
<td>63.61</td>
</tr>
<tr>
<td>Sweden</td>
<td>193</td>
<td>156</td>
<td>1.237</td>
<td>161</td>
<td>83.42</td>
</tr>
<tr>
<td>Spain</td>
<td>148</td>
<td>106</td>
<td>1.396</td>
<td>116</td>
<td>78.38</td>
</tr>
<tr>
<td>Belgium</td>
<td>118</td>
<td>100</td>
<td>1.180</td>
<td>107</td>
<td>90.68</td>
</tr>
<tr>
<td>Denmark</td>
<td>94</td>
<td>92</td>
<td>1.022</td>
<td>92</td>
<td>97.87</td>
</tr>
<tr>
<td>Ireland</td>
<td>149</td>
<td>80</td>
<td>1.863</td>
<td>81</td>
<td>54.36</td>
</tr>
<tr>
<td>Finland</td>
<td>86</td>
<td>75</td>
<td>1.147</td>
<td>75</td>
<td>87.21</td>
</tr>
</tbody>
</table>

In Figure 7 we represent the main three tax-related KAM topics disclosed in the audit reports, looking for an evolution in time. An introductory remark on this representation is related to the slight increase in the weight of KAMs addressing uncertain tax positions in the total number of KAMs analyzed from 11.44% in 2017 to 20.82% in 2021.

These results could be justified by the higher increase in the tax environment, mainly caused by the context of the COVID-19 pandemic, which has raised new tax-related types of events and operations, for which companies faced difficulties in the recognition and the valuation of different balance sheet items, as they

- did not have any experience related to similar tax treatments;
- did not obtain any legal advice or case law related to other entities;
- did not receive any guidance from tax authorities on the specific case;
- obtained already a pre-clearance from the tax authorities on an uncertain tax treatment (Ernst & Young 2021).

However, the effects generated by the COVID-19 pandemic restrictions and volatility in the market are generally visible in the first year affected, especially in the area of uncertain tax positions, as in the next period, sufficient guidance is provided to allow companies to align to tax authorities’ position (Drake et al. 2021b). Moreover, during
the COVID-19 pandemic, professional organizations provided insights into the industry through different guidelines, whereas the academic environment brought contributions through different solutions for improving corporate reporting and increasing companies' transparency (Parker and Troshani 2022).

![Image of a table showing tax-related KAMs by country.](image)

**Figure 7.** Analysis of classes of tax-related KAMs.

The last step of our analysis of the KAM database consists of reviewing the main accounting aspects suggested by each KAMs’ short description. In Table 5 we provide evidence on grouping KAMs reviewed on several key accounting-related aspects. As noted at the beginning of the section, the main issues encountered in the tax-related area refer to the accounting treatment of valuation of current and deferred taxes, followed by the accounting treatment of recognition. However, an important place is also given to the material aspects related to accounting provisions, especially in uncertain tax treatments. Instead, the results show a slight decrease in tax reporting aggressiveness from the perspective of the number of KAMs for the period during the COVID-19 pandemic, whether we talk about current income taxes, uncertainty tax positions, or even the part of deferred income taxes from loss carry-forwards.

**Table 5.** Analysis of tax-related KAMs by the accounting treatment.

<table>
<thead>
<tr>
<th>KAM Category</th>
<th>Before COVID-19 Pandemic</th>
<th>During COVID-19 Pandemic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Deferred Income Taxes</td>
<td>Other Income Taxes</td>
</tr>
<tr>
<td>Valuation</td>
<td>51.49%</td>
<td>42.11%</td>
</tr>
<tr>
<td>Recognition</td>
<td>25.47%</td>
<td>38.82%</td>
</tr>
<tr>
<td>Recoverability</td>
<td>21.49%</td>
<td>0.69%</td>
</tr>
<tr>
<td>Provisions</td>
<td>0.88%</td>
<td>11.52%</td>
</tr>
<tr>
<td>Transfer pricing</td>
<td>0.00%</td>
<td>1.65%</td>
</tr>
<tr>
<td>Adjustments</td>
<td>0.00%</td>
<td>2.88%</td>
</tr>
<tr>
<td>Disclosures</td>
<td>0.41%</td>
<td>1.37%</td>
</tr>
<tr>
<td>Complexity</td>
<td>0.27%</td>
<td>0.96%</td>
</tr>
</tbody>
</table>

5. Conclusions

Economic, political, or social circumstances are among the primary factors that determine the application of tax avoidance by most companies. Under the given conditions, the relevance of financial information is slightly decreasing, because reporting strategies do not
provide evidence of a potential deterioration of reported earnings, but rather try to hide the managers’ practice of managing earnings through various impression management techniques and reduced financial transparency. Therefore, the role of external auditors becomes essential in mitigating information asymmetry.

The achievement of the object regarding the study of the association of a quality audit and tax avoidance by applying a bibliometric analysis of the specialized literature and the exploratory analysis of key audit matters allowed us to highlight the following aspects:

First, we underline that greater attention should be paid to the association between KAMs disclosed by auditors on the extended audit reports and corporate tax avoidance indication through various metrics of tax planning.

Second, we raise the concern of the negative impact of the persistent link between accounting regulation and tax regulation, adequately described by the different accounting treatments of taxes, which seem to lead to an increase in audit risk because of the international exposure of firms’ operations and, therefore, differences determined by diverging cross-country tax regulations.

Third, this study underlines that collections of data on KAM disclosures could help specialists create a common body of knowledge about KAMs and how they should be used as communication tools between auditors, management, and stakeholders (including the state).

Nonetheless, this study could be used by tax authorities to understand the main concerns on the business environment so that they can come up with supportive public tax policies that should make firms’ mission easier to determine the tax burden. In addition, it provides researchers with a starting point to further explore issues related to tax avoidance techniques and the role of a financial auditor in limiting them. Finally, this article contributes to the existing literature by providing suggestions for future research.

Limitations of the research consisted of a lack of information for testing a sample and extended time intervals. The data and indicators were extracted and analyzed manually, taken from the Audit Analytics database, and were limited to the European community space.

For this reason, the main limitation of this paper can be an opportunity for possible future research directions, which is to extend the sample to a larger number of companies by using a database that includes audit information related to companies from all continents. At the same time, we can also consider the development of a quantitative research on the impact of a quality audit on tax avoidance.

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